HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR THE MOHAWK SUB-AREA

BMI COMMON AREAS (EASTSIDE)
CLARK COUNTY, NEVADA

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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.

January 11, 2011

Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2011) Date
BRC Project Manager

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ACRONYMS AND ABBREVIATIONS

Aa	alluvial aquifer
ADD	average daily dose
AOC3	Settlement Agreement and Administrative Order on Consent, Phase 3
ARR	asbestos related risk
ASTM	American Society for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
BCLs	Basic Comparison Levels
bgs	below ground surface
BMI	Basic Management, Inc.
BRC	Basic Remediation Company
CAMU	Corrective Action Management Unit
COPC	chemical of potential concern
CSF	cancer slope factor
CSM	conceptual site model
DAF	dilution attenuation factor
DOE	U.S Department of Energy
DQI	data quality indicator
DQO	data quality objective
DVSR	Data Validation Summary Report
ECI	Environmental Conditions Investigation
FSSOP	Field Sampling and Standard Operating Procedures
ft/ft	foot per foot
GES	Geotechnical and Environmental Services
GiSdT	Guided Interactive Statistical Decision Tools
HEAST	Health Effects Assessment Summary Tables
HHRA	Human Health Risk Assessment
HI	hazard index
HQ	hazard quotient
IEUBK	Integrated Exposure Uptake Biokinetic Model
ILCR	incremental lifetime cancer risk
IRIS	Integrated Risk Information System
IUR	inhalation unit risk
LADD	lifetime average daily dose
LBCL	Leaching-based Basic Comparison Level

ACRONYMS AND ABBREVIATIONS (Continued)

LCS/LCSD	laboratory control sample/laboratory control sample duplicate
LMS	linearized multi-stage
LOAEL	lowest-observed-adverse-effect-level
MDBM	Mount Diablo Base and Meridian
mg/kg	milligrams per kilogram
MS/MSD	matrix spike/matrix spike duplicate
msl	mean sea level
NBMG	Nevada Bureau of Mines and Geology
NDEP	Nevada Division of Environmental Protection
NFAD	No Further Action Determination
NOAEL	no-observable-adverse-effect-level
NRS	Nevada Revised Statutes
ORNL	Oak Ridge National Laboratory
PAH	polynuclear aromatic hydrocarbon
PARCC	precision, accuracy, representativeness, comparability, and completeness
PBT	persistent, bioaccumulative, and toxic
PCB	polychlorinated biphenyl
pCi/g	picoCuries per gram
PEF	particulate emission factor
PNNL	Pacific Northwest National Laboratories
PPRTV	Provisional Peer Reviewed Toxicity Value
ppt	parts per trillion
PQL	practical quantitation limit
Qal	Quaternary alluvium
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
RAGS	Risk Assessment Guidance for Superfund
RAIS	Risk Assessment Information System
RAS	Remedial Alternatives Study
RAWP	Removal Action Work Plan
RfC	reference concentration
RfD	reference dose
ROD	Record of Decision

ACRONYMS AND ABBREVIATIONS (Continued)

RPD	relative percent difference
SAP	Sampling and Analysis Plan
SIM	selective ion mode
SNWA	Southern Nevada Water Authority
SOP	standard operating procedure
SQL	sample quantitation limit
SRC	Site-related chemical
SVOC	semi-volatile organic compound
TCDD	2,3,7,8-tetrachlorodibenzo-*p*-dioxin
TDS	total dissolved solids
TEF	toxicity equivalency factor
TEQ	toxicity equivalency quotient
TIC	tentatively identified compound
TIMET	Titanium Metals Corporation
TMCf	Tertiary Muddy Creek Formation
TPH	total petroleum hydrocarbons
UCL	upper confidence limit
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

Basic Remediation Company (BRC) has prepared this Human Health Risk Assessment (HHRA) and Closure Report for the Mohawk Sub-Area (Site) of the Basic Management, Inc. (BMI) Common Areas (Eastside) in Clark County, Nevada. The purpose of this report is to support a request for a No Further Action Determination (NFAD) by the Nevada Division of Environmental Protection (NDEP) for the Site. The HHRA evaluates the potential for adverse human health impacts that may occur as a result of potential exposures to residual concentrations of chemicals in soil, groundwater, and air, following remediation of the Site. If the residual risks do not pose an unacceptable risk to human health and the environment, then an NFAD will be requested from the NDEP. Pending issuance of an NFAD by NDEP, development of the Site is expected to proceed in a manner consistent with Environmental Covenants that attach to the property. This report also describes the various remediation actions that were performed and presents the subsequent confirmation data collected in 2008 and 2009 at the Site.

BACKGROUND

An initial confirmation sampling investigation was conducted at the Site in 2008 (with additional data collected in 2009) in accordance with a NDEP-approved Sampling and Analysis Plan (SAP). The SAP addressed sampling procedures such that remaining contaminants and their potential impacts to future Site uses (as discussed in Section 1.1 of the *BRC Closure Plan* for the BMI Common Areas [BRC, ERM, and DBS&A 2007[1]]) can be determined. The Site investigation involved collection of soil matrix and surface flux samples placed throughout the Mohawk Sub-Area. The sampling plan performed for this purpose as described in Section 4 of the SAP (BRC, 2008a) was consistent with the approach presented in Section 2 of the *Statistical Methodology Report* (NewFields 2006). The *Statistical Methodology Report* describes the statistical methods that are used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas. Several subsequent rounds of soil remediation and confirmation sampling were performed. The final number of samples collected was determined to be adequate for the completion of a statistically robust dataset upon which to perform an HHRA. Based upon data distribution analysis (see Sections 3.4, 6.1.1 and 7.2.1) three exposure areas were assessed for purposes of risk characterization.

[1] The BRC Closure Plan was finalized and approved by NDEP in 2007. Subsequent to this date revisions have been made to Section 9 of the Closure Plan (Risk Assessment Methodology–Human Health). The latest revision to Section 9 is March 2010. No other sections of the Closure Plan have been revised since 2007.

CONCEPTUAL SITE MODEL

The conceptual site model (CSM) for the Site considers current and potential future land-use conditions. Currently, the Site is undeveloped. Current receptors that may be exposed to Site chemicals of potential concern (COPCs) include on-site trespassers, occasional on-site workers, and off-site residents. Under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing, parks, schools, commercial development, and streets. Future receptors identified as "on-site receptors" are defined as receptors located within the current Site boundaries (Figure 1), 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. Therefore, future receptors include on-site residents, and workers (indoor, outdoor maintenance, and construction), trespassers, and off-site residents. Due to the requirement for use of default reasonable maximum exposure parameters for future receptors, exposures to future receptors are greater than current exposures. Accordingly, only future receptors were assessed in the HHRA. Potential exposures to off-site residents were qualitatively evaluated.

The entire Site will be enhanced by restoration and redevelopment once remediation is complete. Therefore, there is no exposure to ecological receptors because the site will be prepared for human use in a residential or commercial setting.

DATA REVIEW AND USABILITY EVALUATION

A data review and usability evaluation was performed to identify appropriate data for use in the HHRA. The results of the data usability evaluation indicate that the data collected in 2008 and 2009 are adequate in terms of quality and quantity for use in a risk assessment.

HUMAN HEALTH RISK ASSESSMENT

An HHRA was conducted to determine if chemical concentrations in Site soils are: (1) either representative of background conditions; or (2) do not pose an unacceptable risk to human health and the environment under anticipated future use conditions. The HHRA followed the basic procedures outlined in U.S. Environmental Protection Agency (USEPA) and NDEP guidance documents. The HHRA also conforms to the methodology included in Section 9 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007, Section 9 revised in March 2010). The Site was divided into three exposure areas: (1) pond PUC-2, (2) pond PUA-3 and (3) the total Site ("Site-wide") of the Site with cancer risks and non-cancer hazards were calculated for each of the exposure areas. This was done to accommodate the different distributions (and related exposure point concentrations) for cobalt in PUC-2 and vanadium in PUA-3. For all other COPCs, the exposure point concentrations were based on the entire Site-wide data set. Radionuclides were not evaluated in the risk assessment as they were consistent with background concentrations. Results of the HHRA are summarized below.

Residential Scenario			
	Exposure Area		
	PUC-2	PUA-3	Site-Wide
Non-Cancer HI[1]	0.95 (TO)	0.93 (TO)	0.46
Chemical Cancer Risk[2]	1×10^{-6}	1×10^{-6}	1×10^{-6}
Asbestos Risk[3]	--	--	1×10^{-8} to 2×10^{-7}

Construction Worker Scenario			
	Exposure Area		
	PUC-2	PUA-3	Site-Wide
Non-Cancer HI[1]	0.48	0.25	0.12
Chemical Cancer Risk[2]	2×10^{-7}	2×10^{-8}	2×10^{-8}
Asbestos Risk[3]	--	--	2×10^{-8} to 3×10^{-7}

Commercial Worker Scenario			
	Exposure Area		
	PUC-2	PUA-3	Site-Wide
Non-Cancer HI[1]	0.040	0.035	0.015
Chemical Cancer Risk[2]	1×10^{-7}	1×10^{-7}	1×10^{-7}
Asbestos Risk[3]	--	--	2×10^{-9} to 4×10^{-8}

Maintenance Worker Scenario			
	Exposure Area		
	PUC-2	PUA-3	Site-Wide
Non-Cancer HI[1]	0.070	0.062	0.026
Chemical Cancer Risk[2]	1×10^{-7}	1×10^{-7}	1×10^{-7}
Asbestos Risk[3]	--	--	5×10^{-9} to 9×10^{-8}

1 – HI = hazard index; the value presented is the total cumulative non-cancer HI; unless noted with an '(TO)' which indicates the value is the maximum target organ specific HI.
2 – Cancer risk is the maximum theoretical upper-bound incremental lifetime cancer risk (ILCR).
3 – Asbestos risks represent the cumulative asbestos risks for chrysotile and amphibole fibers. However, the risk estimates are dominated by amphibole, which was not detected at the Site in the confirmation samples. Asbestos risks were calculated for the entire site and not divided by exposure area.

Indoor air exposures are evaluated on a sample by sample basis, per NDEP requirements, using the surface flux data measurements. Because of this, the minimum and maximum surface flux risks and hazard index estimates are summed with those for soil to provide the range of cumulative risks and hazard indices shown above.

In addition, BRC has performed a more detailed site-specific evaluation of vapor intrusion potential at a comparison study area within the Eastside property. Given the results of this study, and based on the results of the tiered approach followed from USEPA's 2002 Vapor Intrusion Guidance, it has been demonstrated that there is no likelihood of adverse vapor intrusion into any indoor spaces that may be constructed in the Mohawk sub-area.

NDEP has recently determined that risk assessments for Eastside property sub-areas do not need to evaluate the pathway of radon migration from groundwater to indoor air for sub-areas with a separation distance of at least 15 feet between any current or future building structure base and the high water table (letter dated November 9, 2010, from Greg Lovato, NDEP, to Mark Paris, BRC). Therefore, given the depth to groundwater at the Site is at least 45 feet below ground surface (bgs), the intrusion of radon into indoor air is not evaluated in this human health risk assessment.

EVALUATION OF UNCERTAINTIES

Risk estimates are values that have uncertainties associated with them. These uncertainties, which arise at every step of a risk assessment, are evaluated in the report to provide an indication of the uncertainty associated with risk estimates. Uncertainties from different sources are compounded in the HHRA. Because the exposure assumptions and toxicity criteria are considered conservative, the risk estimates calculated in this HHRA are likely to overestimate rather than underestimate potential risks. A detailed discussion of these uncertainties is provided in the Uncertainty Analysis (Section 7) of the report.

POTENTIAL IMPACTS TO GROUNDWATER

Potential impacts to groundwater of residual chemicals in soil considering the future land use of the Site were also evaluated. Potential impacts were evaluated using the VLEACH and SESOIL vertical unsaturated zone migration models. Because future redevelopment will likely result in increased surface water infiltration due to sources such as buried water lines, sewer lines, irrigation lines and/or over-watering of parks and lawns, three surface water infiltration scenarios were evaluated: 1) baseline, pre-development conditions; 2) normal post-development conditions; and 3) post-development enhanced recharge due to overwatering of open space.

The modeled metals and organochlorine pesticides are not expected to reach groundwater within 100 years for any of the three infiltration scenarios. For other organics, dichloromethane, 1,2,4-trimethylbenzene, benzene, and aldehydes all are predicted to reach groundwater; however, dichloromethane, formaldehyde, benzene, and 1,2,4-trimethylbenzene are not projected to reach groundwater at concentrations that exceed their respective residential water human health comparison levels (BCLs). Although the modeling predicts that acetaldehyde will reach groundwater at (pore water) concentrations that exceed its residential water comparison level, acetaldehyde has not been detected in shallow groundwater in the vicinity of the Site, which would be expected given the length of time since the Eastside property was in use.

Other inorganics are predicted to exceed their respective comparison levels. However, based upon the differences in the model predicted results and observed measurements in groundwater, it is probable that processes not accounted for in the model are reducing/attenuating concentrations as they migrate through the vadose zone. Based on the elapsed time since any Site use, it is unlikely that the concentrations of organics and inorganics detected in Site soils represent a risk to groundwater quality.

SUMMARY

Based on the results of the 2008 and 2009 investigations, HHRA, and the conclusions in this report, exposures to residual levels of chemicals in soil at the Mohawk Sub-Area should not result in adverse health effects to any of the future receptors evaluated, or to groundwater quality beneath the Site. As a result, an NFAD for the Mohawk Sub-Area is warranted given the following conditions:

1. The NFAD does not pertain to groundwater. BRC retains the responsibility to address any environmental impacts to groundwater beneath the Site. As such, additional investigation may be necessary on the Site as it relates to BRC's responsibilities. BRC must be granted access to the site for activities such as well or soil boring installations or other investigative or remedial efforts.

2. The soils beneath 10 feet bgs of the current grading plan for the Site have not been evaluated to date. Accordingly, the NFAD does not pertain to soil below the top 10 feet of the current grading plan for the Site. The property owner should note that these soils should not be disturbed without additional investigation or evaluation.

3. The property owner should ensure that activities at the Site do not exacerbate existing, subsurface, environmental conditions.

4. The site use is otherwise suitable for purposes of residential, recreational, commercial or industrial use.

1.0 INTRODUCTION

Basic Remediation Company (BRC) has prepared this Human Health Risk Assessment (HHRA) and Closure Report for the Mohawk Sub-Area (Site) of the Basic Management, Inc. (BMI) Common Areas (Eastside) in Clark County, Nevada. The purpose of this report is to support a request for a No Further Action Determination (NFAD) by the Nevada Division of Environmental Protection (NDEP) for the Site. As presented in Section XVII.1.a. of the *Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3* (AOC3; NDEP 2006), NDEP acknowledges that discrete Eastside areas may be issued an NFAD as remedial actions are completed for select environmental media. Any such request shall identify the remedial actions and other work completed at the property in question, the results of such remedial actions and other work, the proposed land use(s), and the reasons supporting the eligibility of the Property for an NFAD. This report provides this information for the Site.

BRC recognizes that the following conditions will be included in an Environmental Covenant as a condition to receiving an NFAD from NDEP:

1. The NFAD does not pertain to groundwater. BRC retains the responsibility to address any environmental impacts to groundwater beneath the Site. As such, additional investigation may be necessary on the Site as it relates to BRC’s responsibilities. BRC must be granted access to the site for activities such as well or soil boring installations or other investigative or remedial efforts.

2. The soils beneath 10 feet below ground surface (bgs) of the current grading plan for the Site have not been evaluated to date. Accordingly, the NFAD does not pertain to soil below the top 10 feet of the current grading plan for the Site. The property owner should note that these soils should not be disturbed without additional investigation or evaluation.

3. The property owner should ensure that activities at the Site do not exacerbate existing, subsurface, environmental conditions.

4. The site use is otherwise suitable for purposes of residential, recreational, commercial or industrial use.

As stated in Section VI of NDEP’s *Record of Decision, Remediation of Soils and Sediments in the Upper and Lower Ponds at the BMI Complex* (ROD; NDEP 2001), cleanup of the Site proceeded under Alternative 4B (soils transferred from the Site to a dedicated Corrective Action

Management Unit [CAMU] within the BMI Complex),[2] as identified and described in Section 9 of the Remedial Alternatives Study (RAS) for the Eastside. The *Remedial Alternatives Study for Soils and Sediments in the Upper and Lower Ponds at the BMI Complex* (ERM 2000a) was submitted to NDEP in March, 2000. The RAS is documented via issuance of the ROD, dated November 2, 2001, by the NDEP.

This revision of the report, Revision 5, incorporates comments and recommended edits received from the NDEP, dated December 30, 2010 and January 4, 2011 on Revision 4 of the report, dated November 2010; the redline-strikeout version of the report received from NDEP on November 5, 2010 (Revision 3); comments and recommended edits received from the NDEP, dated July 9, 2010 on Revision 2 of the report; comments received from the NDEP, dated April 20, 2010, on Revision 1 of the report, dated March 2010; and comments received from the NDEP dated November 23, 2009, on Revision 0 of the report, dated October 2009. The NDEP comments and BRC's response to comments as well as the annotated comments received December 30, 2010 and January 4, 2011 are included in Appendix A. Also included in Appendix A is a redline/strikeout version of the text showing the revisions from the November 2010 version of the report (Revision 4). An electronic version of the entire report, as well as original format files (MS Word and MS Excel) of all text, tables, modeling, and risk calculations are included on the report CD in Appendix B.

1.1 PURPOSE OF THE RISK ASSESSMENT

The purpose of the HHRA is to evaluate the potential for adverse human health impacts that may occur as a result of potential exposures to residual concentrations of chemicals in soil, groundwater, and air following remediation, and to assess whether any additional remedial actions are necessary in order to request an NFAD from the NDEP to allow development of the Site to proceed. The results of the risk assessment provide risk managers an understanding of the potential human health risks associated with background conditions and additional risks associated with past Site activities.[3] Pending issuance of an NFAD by NDEP, development of the

[2] Under this alternative, the Site could be developed in accordance with the current development plan without the need for institutional controls within the Site.

[3] The human health risk assessment presents incremental risks; that is, the risk in addition to background risk caused by Site contamination. Background risk is the risk to which a population is normally exposed, and does not include risks from Site contamination. Total risk includes both incremental and background risks. Because naturally-occurring constituents are typically included in a risk assessment (i.e., metals and radionuclides) the incremental risk will have some element of total risk included. However, because risks are only calculated for a sub-set of metal and radionuclides, a 'total' risk is not calculated. In instances where the incremental risk is calculated to exceed a cancer risk of 10^{-5} (typically when radionuclides are included in the risk assessment calculations), then a background risk, only including those naturally-occurring constituents included in the risk assessment, will also be calculated to provide context to the risk assessment results.

site is expected to proceed in a manner consistent with Environmental Covenants that attach to the property.

As presented in Section 2.5 of the *Sampling and Analysis Plan for the Mohawk Sub-Area* (BRC 2008a; hereinafter "SAP"; approved by NDEP on July 2, 2008), historical sampling identified areas within the Site that required remediation, and BRC conducted remediation in those areas prior to sampling in accordance with the SAP. It is BRC's intent that media requiring mitigation will have been addressed prior to conducting the risk assessment. The overall goal of the risk assessment presented in this report is to confirm that residual chemical concentrations are: (1) either representative of background conditions; or (2) do not pose an unacceptable risk to human health and the environment under current and anticipated future land use conditions. Findings of the HHRA are intended to support the site closure process.

For human health protection, BRC's goal is to remediate the Site soils such that they are suitable for residential uses, assuring health protective conditions at 1/8th-acre exposure areas. The 1/8th-acre area corresponds to the size of a typical residential lot size, as presented in U.S. Environmental Protection Agency (USEPA 1989) and is applicable to future Site conditions. It should be noted that although 1/8th-acre areas are the target for exposure, sampling has not occurred on many of these 1/8th-acre exposure areas, instead assumptions of similar populations across the Site (or areas larger than 1/8th-acre, as supported by the data) allows estimates to be applied to 1/8th-acre exposure areas. The decision can hence be made simultaneously for many 1/8th-acre exposure areas based on the data and documentation that the exposure areas can be aggregated. This can result in aggregation across the entire Site if concentration distributions appear to be relatively homogeneous and representative of a single population, or within separate sub-areas of the Site if those sub-areas exhibit different distributions. Note that an assumption was made in the SAP for the Mohawk Sub-Area (see Section 3.4 of that document) that the concentration distribution across the entire Site is relatively homogeneous. This assumption was evaluated prior to performing the risk assessment and three exposure areas were subsequently identified (see Section 7.2.1).

Project-specific risk level and remediation goals consistent with USEPA precedents and guidelines for residential uses have been established, as summarized below. It should be noted that: 1) all comparisons to risk or chemical-specific goals are made on an exposure area basis consistent with likely exposure assumptions, and 2) these comparisons are demonstrated through the use of spatial statistical analysis to apply to each 1/8th-acre exposure area.

Human health risks are represented by estimated theoretical upper-bound cancer risks and non-cancer hazards derived in accordance with standard USEPA and NDEP methods. If the carcinogenic risks or non-cancer hazards exceed USEPA acceptable levels or NDEP risk goals, then remedial action alternatives must be considered. The acceptable risk levels defined by USEPA for the protection of human health, as identified in Section 9.1.1 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), are:

- Post-NFAD chemical and radionuclide concentrations in Site soils are targeted to have an associated residual, cumulative theoretical upper-bound incremental lifetime cancer risk (ILCR) level point of departure of 10^{-6}. This is the target risk goal for the project. For cases where NDEP identifies this goal to be unfeasible, it is BRC's understanding that the NDEP will re-evaluate the goal in accordance with USEPA guidance [USEPA 1991a]). In no case will the residual, cumulative theoretical upper bound carcinogenic risk levels exceed those allowed per USEPA guidance.

- Post-NFAD chemical concentrations in Site soils are targeted to have an associated cumulative, non-carcinogenic hazard index (HI) of 1.0 or less. If the screening HI is determined to be greater than 1.0, target organ-specific HIs will be calculated for primary and secondary organs. The final risk goal will be to achieve target organ-specific non-carcinogenic HIs of less than 1.0.

- Where background levels exceed risk level goals or chemical-specific remediation goals, metals and radionuclides in Site soils are targeted to have risks no greater than those associated with background conditions.

In addition to the risk goals discussed above, chemical-specific remediation goals have been established for lead and dioxins/furans. The target goal for lead is 400 milligrams per kilogram (mg/kg) for residential land use, which is a residential soil concentration identified by USEPA (based on the Integrated Exposure Uptake Biokinetic Model [IEUBK] model) as protective of a residential scenario (USEPA 2004a).

For dioxins/furans and polychlorinated biphenyls (PCBs) congeners, the USEPA toxicity equivalency (TEQ) procedure, developed to describe the cumulative toxicity of these compounds, is used. This procedure involves assigning individual toxicity equivalency factors (TEFs) to the 2,3,7,8 substituted dioxin/furan and PCB congeners. TEFs are estimates of the toxicity of dioxin-like compounds relative to the toxicity of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD), which is assigned a TEF of 1.0. Calculating the TEQ of a mixture involves multiplying the concentration of individual congeners by their respective TEF. One-half the detection limit is used for calculating the TEQ for individual congeners that are non-detect in a particular sample. The sum of the TEQ concentrations for the individual congeners is the TCDD TEQ concentration for the mixture. TEFs from USEPA (2000a) are used. Consistent with the Agency for Toxic Substances and Disease Registry (ATSDR) *Update to the ATSDR Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil* (2008a), the target goal for residential land use is the ATSDR screening value and NDEP residential Basic Comparison Level (BCL; NDEP 2010a) of 50 parts per trillion (ppt) TCDD TEQ.

1.2 METHODOLOGY AND REGULATORY GUIDANCE

This risk assessment follows the basic procedures outlined in USEPA *Risk Assessment Guidance for Superfund: Volume I—Human Health Evaluation Manual* (RAGS; USEPA 1989), and conforms to Chapter 9 (Risk Assessment Methodology–Human Health) of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010).[4] Various NDEP guidance documents are also relied on for the risk assessment (as referenced throughout this report). In addition, NDEP's BCLs (NDEP 2010a) are used for comparison of site characterization data to provide for an initial screening evaluation, to assist in the evaluation of data usability, and determination of extent of contamination. A full list of guidance documents consulted is provided in Section 6, and the Reference section at the end of this document.

This report also relies upon information provided in the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010). The main text of the *BRC 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 5 of this report);

[4] Note that Section 9 of the Closure Plan was updated in March 2010 and is currently under review by NDEP. To the extent possible, methods provided in the revised Section 9 are followed in this report.

- 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 [2010 revision]);
- The data quality objectives (DQOs; Closure Plan Section 7[5]);
- The RAS 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 [2010 revision] and Section 10 for ecological); and
- Data quality assessment (Closure Plan Section 5).

As discussed in this report, the risk assessment for the Site is conducted primarily using the data collected during implementation of the SAP (BRC 2008a), and subsequent confirmation sampling events, which have been designed to produce data representative of the conditions to which current (non-remediation workers) or future users would be exposed.

1.3 REPORT ORGANIZATION

The risk assessment is composed of several sections that are outlined below. This section presents the purpose of the risk assessment, and the methods used in this assessment. Section 2 presents background on the Site, the environmental setting for the Site, and a summary of previous investigations. Section 2 also presents the CSM for the risk assessment. This includes identification of potentially exposed populations, and the potential pathways of human exposure.

Section 3 presents the confirmation data collected in 2008 and 2009, as well as discussions on the various remedial actions that were done at the Site. Section 4 presents the data evaluation procedures used, including statistical analysis of background concentrations, and data usability and quality. Section 5 presents the selection of COPCs recommended for further assessment, including comparisons of Site metals and radionuclides to background conditions.

Section 6 presents the HHRA. This includes relevant statistical analyses, determination of representative exposure point concentrations, applicable fate and transport modeling, exposure

[5] As noted in the *BRC Closure Plan*, per discussions with the NDEP, the DQO process is addressed, on an Eastside sub-area by sub-area basis (for soils), in the respective sub-area SAPs developed for each sub-area relating to the soils cleanup. Therefore, the DQO process for the Site is presented in the SAP and is not repeated here. This DQO process was incorporated in the data usability/data adequacy evaluation for the Site data used in the risk assessment.

assessment, toxicity assessment, and risk characterization. In Section 7, the uncertainties associated with the risk assessment are discussed. In each risk estimate, a degree of uncertainty is introduced as a result of the limitations of the exposure and toxicity information, the modeling approaches, and the data used to conduct the evaluation.

A summary of the risk assessment results is provided in Section 8. The results of the analysis of potential impacts to groundwater are presented in Section 9. The data quality assessment for the HHRA is presented in Section 10. A summary is provided in Section 11, with a list of references provided in Section 12, followed by tables, figures, and appendices.

2.0 SITE DESCRIPTION

This Section presents a description of the Site, including Site background and history, the environmental setting, and a summary of previous investigations. The area known as the "BMI Common Areas," of which the Mohawk Sub-Area is a part, is delineated in Appendix A of the AOC3 (NDEP 2006). The subject Site is near the BMI Industrial Complex, in Clark County, Nevada, approximately 13 miles south of the city of Las Vegas, and adjacent to and northeast of the City of Henderson (Figure 1). The total extent of the Site is 54.7 acres. The Site is the easternmost portion of the BMI Common Areas, which lies to the east of Boulder Highway and to the north of Lake Mead Parkway and consists of:

- Land on which unlined wastewater effluent evaporation/infiltration ponds (and associated conveyance ditches) were built and into which various plant wastewaters were discharged from 1942 through 1976;
- Land on which unlined wastewater effluent ponds were constructed but which were never used; and,
- Land that has remained desert.

2.1 SITE HISTORY

The BMI Common Areas contained a network of ditches, canals, flumes, and unlined ponds that were used for the disposal of aqueous waste from the original magnesium plant and, later, other industrial plants and the municipality adjacent to it. Effluent wastes discharged to the ponds of the BMI Common Areas from the war-time Basic Magnesium operations can be characterized as salts from the production process (chloride salts of a variety of metals and radionuclides); organic solids; and inorganic solids and dissolved components of various types. Chlorinated organic chemicals were included in the effluent. Notable processes that contributed to the waste stream from the plants that succeeded Basic Magnesium included effluents from the manufacture of the following types of products: chlorine and sodium hydroxide (caustic soda); a variety of chlorate, perchlorate compounds, and halogenated boron compounds; manganese dioxide; titanium and related compounds; and a variety of pesticides. Among these wastes were salts; organic and inorganic chemicals; and metals. A more detailed description of these processes and their effluents is found in Sections 2.2 and 2.3 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010).

2.2 ENVIRONMENTAL SETTING

The BMI Common Areas and Complex are located in Clark County, Nevada, and are situated approximately two miles west of the River Mountains and one mile north of the McCullough Range. The local surface topography slopes in a westerly to northwesterly direction from the River Mountains and in a northerly to northeasterly direction from the McCullough Range. Near the BMI Common Areas and Complex, the surface topography slopes north toward the Las Vegas Wash. According to the Nevada Bureau of Mines and Geology (NBMG) *Las Vegas SE Folio Geologic Map (1977) and the Geologic Map of the Henderson Quadrangle, Nevada* (NBMG 1980), the River Mountains and McCullough Range consist of volcanic rocks: dacite in the River Mountains and andesite in the McCullough Range.

The Site (Figure 2) comprises approximately 54.7 acres of undeveloped land with very little surface relief that is gently sloping to the northwest. The Site is currently undeveloped, except for the portion containing a temporary informational kiosk, and Mohawk Drive which passes through the Site. Site conditions within the Site are variable. As depicted on Figure 2, the northern portion of the Site has no features of historical use; this portion of the Site has historically been undeveloped and is not known to have been associated with industrial operations at the BMI Complex. In contrast, the southern portion of the Site contains a portion of the Upper Ponds, which were once associated with historical conveyance and/or disposal of operations effluent and cooling water by companies operating at the BMI Complex. The individual ponds are distinct and typically defined by berms along the north, east, and west sides. In general, the berms are relatively uniformly-shaped, often with angular corners showing little evidence of erosion. The berms are typically four to six feet tall. In places, portions of the berms were excavated during remedial activities.

The native soils within the ponds are compacted, poorly-sorted, non-plastic, light brown to red silty sand with varying amounts of gravel. However, prior to 2001, within portions of several ponds, the surficial material consisted of very fine material that graded in color from greenish-gray to light yellowish-brown; in places, the ground surface was white. This discolored material was interpreted to be residual sediment associated with historic effluent disposal in the ponds. As discussed below, this material has been removed from these ponds.

2.2.1 Site Location, Climate and Physical Attributes

The Site is in the northeast quarter of Section 5, Township 22 South, Range 63 East Mount Diablo Base and Meridian (MDBM). The Site is in the Las Vegas Valley, a broad alluvial valley that occupies a structural basin in the Basin and Range Physiographic Province. The valley is about 1,550 square miles in size, and the structural and topographical axis is aligned approximately northwest to southeast. The eastern edge of the valley is about five miles west of Lake Mead, a major multipurpose reservoir on the Colorado River. The Las Vegas Valley is surrounded mostly by mountains, ranging from 2,000 to 10,000 feet higher than the valley floor. The valley floor ranges in elevation from about 3,000 feet above mean sea level (msl), in the west at the mountain front, to 1,500 feet above msl, in the east at the Wash (Southern Nevada Water Authority [SNWA] 1996). The surrounding mountain ranges are:

- Sheep Range to the north;
- Frenchman and Sunrise Mountains to the northeast;
- River Range to the east;
- McCullough Range to the south; and
- Spring Mountains and Sierra Nevada Mountains of California to the west.

The Site is approximately 1.5 miles south of the Las Vegas Wash (Figure 1) and adjacent to and northeast of the city of Henderson, and approximately 13 miles southeast of the city of Las Vegas.

The Site is located in a natural desert area, where evaporation/evapotranspiration rates are very high, due to influence by high temperatures, high winds, and low humidity. Precipitation in this area averages approximately 0.4 inch per month or 4.8 inches per year (WRCC 2008). As discussed in the *Sources/Sinks and Input Parameters for Groundwater Flow Model Technical Memorandum* (DBS&A 2009), in arid settings, recharge from precipitation is typically a small percentage of annual precipitation. Based on values from Scanlon *et al*. (2006), recharge as a percentage of annual precipitation for the Site area was estimated to be between 0.1 percent and 5 percent. Recharge is thus estimated to be between 0.0048 inch and 0.24 inch per year.

According to the SNWA document entitled *Extent and Potential Use of the Shallow Aquifer and Wash Flow in Las Vegas Valley, Nevada* (1996) annual potential evapotranspiration exceeds 86 inches. Pan evaporation data measured from 1985 through 1988 were as high as 17 inches per month; the months with the highest evaporation (May through September) coincide with those months with the highest intensity of rainfall (Law Engineering 1993). However, evaporation and evapotranspiration are functions of vegetation type and density and other site-specific conditions (especially anthropogenic conditions). Therefore, site-specific evaporation/evapotranspiration may vary from these regional conditions. These climatic parameters may be appreciably influenced by future development (*i.e.*, vegetation destruction, pavement extent, and construction).

Wind flow patterns are fairly consistent from one month to another, but vary slightly between measurement stations (McCarran International Airport and a station west of 14th Street adjacent to the employee parking lot at the Titanium Metals Corporation [TIMET] plant entrance). For the McCarran station, the prevailing wind direction is from the southwest. The TIMET station also showed a predominant wind direction from the southwest, with southeasterly components. Wind velocity at both locations tends to be the highest in the spring and early summer months (April through July).

2.2.2 Geology/Hydrology

As is common throughout the Las Vegas Valley, Site soils are primarily sand and gravel, with occasional cobbles. 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 bgs. Lithologic cross sections are shown on Figures 3 and 4.

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.

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. The depth from the surface to first groundwater at the Site is greater than 45 feet bgs (see Figure 2). Wells completed in the Aa are not highly productive, with sustainable flows typically less than five gallons per minute.

2.2.3 Surface Water

Surface water flow occurs for brief periods of time during periodic precipitation events. The Las Vegas Wash collects storm water, shallow groundwater, urban runoff, and treated sewage effluent. It is the receiving water body for all major Las Vegas area discharges. In dry weather, flow in the Wash comprises mainly treated effluent from the Clark County Water Reclamation District (76 million gallons per day) and the City of Las Vegas Water Pollution Control Facility (80 million gallons per day). The City of Henderson contributes a smaller amount (8.4 million gallons per day) (Las Vegas Wash Coordination Committee 2000). Discharge from these sources is sufficient to maintain surface flows in the Wash throughout the year. In winter, low-intensity rains fall over broad areas; in the spring and fall, thunderstorms provide short periods of high-intensity rainfall. The latter create high run-off conditions. Run-off is also affected by human development, which tends to 1) create conduits for surface water flow, and 2) decrease infiltration into native soils by covering them with man-made structures or materials (*e.g.*, pavement).

Under current conditions, it is unlikely that surface waters generated within the Site will migrate via overland transport to the Las Vegas Wash from the Site due to (1) the distance to the Wash (greater than 1.3 miles); (2) the intervening presence of the Tuscany development between the Site and the Wash, and (3) the presence of the former effluent ponds (bermed depressions) that tend to retain overland surface water flow. After development, the ponds will have presumably been removed; however, there will still be a low likelihood that surface waters generated within the Site will migrate to the Las Vegas Wash due to the other factors noted above, which will still apply (i.e., distance to Wash and Tuscany development). In addition, the storm water management features that will be installed as part of the future development at the Site will also reduce the potential for surface water run-off from the Site. These storm water controls will be consistent with State and Federal requirements and permits.

2.3 SUMMARY OF HISTORICAL INVESTIGATIONS

Several historical field investigations were conducted at the Site to characterize the nature and extent of chemical occurrence in Site soils and groundwater. Based on these sampling events, BRC identified portions of the Site that warranted remediation for protection of human health and the environment,[6] and subsequently performed remediation in those areas. The SAP presents a detailed analysis of data collected during the historical field investigations conducted at the Site, which are as follows:

- The BMI Common Areas Environmental Conditions Investigation (ECI) conducted during March and April 1996 (dataset 1a). The soil investigation activities were performed in accordance with a work plan approved by NDEP in February 1996 (ERM 1996a). The soil sampling results for the investigation activities were presented in the ECI report (ERM 1996b);

- Additional soil sampling conducted in December 1998 to better delineate the extent of soil requiring remediation (data were not validated, all soil removed during an Interim Remedial Measure [IRM]). These data were for internal purposes only, and were not collected under a formal NDEP-approved work plan. The results were summarized in the IRM Completion Report (ERM 2000b);

- Additional soil sampling conducted in May 1999 to establish the extent of antimony, manganese and thallium occurrence in Site soils (dataset 6c). These data were also not collected under a formal NDEP-approved work plan. The results were summarized in the IRM Completion Report (ERM 2000b);

- Confirmation soil sampling conducted after the IRM in October 1999 (dataset 7a). These soil sampling activities were performed in accordance with ERM's work plan dated June

[6] It should be noted that this determination was based on comparison of chemical detections to then-applicable human-health risk-based screening levels.

1999, and approved by NDEP on July 23, 1999. The soil sampling results for the investigation activities were presented in the IRM completion report (ERM 2000b). Data validation results are presented in the DVSR for dataset 7a, which was approved by NDEP on October 17, 2006;

- Discrete/composite soil investigation conducted in July 2000 (dataset 8a). The soil investigation activities were performed in accordance with ERM's work plan submitted in July 2000 and approved by NDEP on July 18, 2000. The soil sampling results for the investigation activities were presented in letters to NDEP dated August 11, 2000 (soil sampling results) and August 28, 2000 (statistical analysis of results). Data validation results are presented in the DVSR for dataset 8a, which was approved by NDEP on October 10, 2006;

- Supplemental soil investigation conducted in May 2001 (datasets 19 and 20c). These data were not collected under a formal NDEP-approved work plan. The results are provided in Appendix B. Data validation results are presented in the DVSRs for datasets 19 and 20c, which were approved by NDEP on December 8, 2006 and February 5, 2007, respectively; and

- Waste characterization conducted in July and August 2006 (dataset 39). The soil investigation activities were performed in accordance with BRC's SAP submitted on June, 29 2006 and approved by NDEP in July 2006. The soil sampling results for the investigation activities were presented in the *Remedial Action Plan* (RAP; BRC 2007). Data validation results are presented in the DVSR for dataset 39, which was approved by NDEP on November 3, 2006.

During these investigations, soil samples at various depths were collected and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, organophosphorous pesticides, PCBs, chlorinated herbicides, dioxins/furans, metals, perchlorate, and/or radionuclides. The data from these investigations have been validated, except as noted above. Data validations are presented in the respective DVSRs for each of the datasets, which have been approved by NDEP. The results of these field sampling events are provided in the Site database included on the report CD in Appendix B.

Many of these historical samples were composite samples all previous soil samples (other than limited soil samples collected during the 2006 waste characterization sampling) were collected at least seven years ago, none of the previous samples were analyzed for all of the major chemicals or chemical families, and several used different analytical methods. Sampling performed as described in the SAP relied on the statistical methodologies presented in the *Statistical Methodology Report*[7] (NewFields 2006). Therefore, because of these various factors, the data collected as part of the SAP in 2008 and 2009 (as discussed in Section 3) are considered more representative of current Site conditions,[8] and are relied upon for risk assessment purposes as described in this report.

2.4 HISTORICAL REMEDIAL ACTIVITIES

To expedite restoration of the Site, BRC elected to perform an IRM in 1999. This IRM was performed following the procedures specified in the NDEP-approved *Mohawk Area IRM Workplan* (ERM 1999), which was approved by NDEP on July 23, 1999. IRM activities consisted of excavation of the impacted shallow soils, transportation to a secured location within the Upper Ponds outside the Site boundaries, and treatment to prevent generation of wind-blown dusts and runoff.

The majority of soil excavation in the Site was performed during October and November of 1999, with the balance completed by March 2000. Excavation was conducted in ponds UA-01 through UA-03, UB-01 through UB-03, UC-01 and UC-02, and UD-01 and UD-02. In addition to the removal of discolored sediments, a minimum of six inches of soil was removed throughout the IRM area. Based on the results of confirmation sampling following the IRM, an additional six inches of soil were excavated and removed from ponds UC-01 and UC-02. A total estimated 16,000 cubic yards of soil were excavated and removed from the Site. Results of the IRM for the Site were presented in the IRM completion report (ERM 2000b); this report has not been approved by NDEP.

The IRM soil remediation approach discussed above consisted of excavation of contaminated shallow soils and their temporary placement adjacent to the Site pending ultimate disposal in a CAMU designated solely for these soils as discussed more fully in the CAP (BRC 2006). In May 2008, BRC performed additional excavation prior to implementation of the SAP. The 2008 additional excavation occurred at pond PUE-01, which was not excavated during the 1999/2000 IRM and which had residual discolored sediments. Approximately six to 12 inches of sediments/soil were excavated and removed from both the western and eastern portions of

7 The *Statistical Methodology Report* describes the statistical methods that are being used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas.
8 This determination is also based on the data usability evaluation summarized in Section 4.2.

PUE-01, which is now bisected by Mohawk Drive. This excavation and soil removal occurred from May 16 through 23, 2008. As such the IRM and the additional excavation at pond PUE-01 constitute the baseline remediation for this Site.

2.5 CONCEPTUAL SITE MODEL

The CSM is a tool used in risk assessment to describe relationships between chemicals and potentially exposed human receptor populations, thereby delineating the relationships between the suspected sources of chemicals identified at the Site, the mechanisms by which the chemicals might be released and transported in the environment, and the means by which the receptors could come in contact with the chemicals. The CSM provides a basis for defining DQOs, guiding site characterization, and developing exposure scenarios. The Site history, land uses, climate, physical attributes, including geology and hydrogeology, and various field investigations are fully described in Sections 2.1 through 2.4 of this HHRA. The site history and environmental conditions of the BMI Common Areas are described in Sections 2 and 4 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), and in the Site-Wide CSM (in preparation).

The HHRA evaluates current and potential future land-use conditions. The Site is currently undeveloped, except for a portion of the temporary informational kiosk, and Mohawk Drive, which passes through the Site. The potential on-site and off-site receptors are currently trespassers, occasional on-site workers, and off-site residents. Exposures to current receptors 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, parks, schools, commercial development, 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. Future receptors identified as “on-site receptors” are defined as receptors located within the current Site boundaries (Figure 1), 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 2.5.3.

The current development plan for the Site is shown on Figure 5. To construct parks, commercial structures and residences, the land will be cut and/or filled, paved with roads or foundations, and nurtured with imported top soils[9] as needed. Figure 6 shows the current grading plan for the Site, indicating which areas will be filled and which areas will be cut.

The CSM includes the planned development of the Site. All potential transfer pathways are included in the CSM. The human health aspects of the CSM for the Site are presented on Figure 7.

Numerous release mechanisms influence chemical behavior in environmental media. Under both current and future land use conditions at the Site, the principal release mechanisms involved are:

- Vertical migration in the vadose zone
- Storm/surface water runoff into surface water and sediments
- Fugitive dust generation and transport
- Vapor emission and transport
- Uptake by plants

Although these release mechanisms are identified here, no quantitative modeling is presented in this Section. Instead, those primary release mechanisms identified for particular receptors are presented in this Section, and are quantitatively evaluated in Section 6.

2.5.1 Impacted Environmental Media

Environmental media at the Site consist of five categories: surface soil, subsurface soil, groundwater, indoor air, and ambient outdoor air. Samples relative to Site baseline conditions have been collected at the Site for soil. Generally, impacted soil is the source of chemical exposures for other media at the Site.

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)

[9] 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.

will not occur in the post-redevelopment phase. Therefore, exposure pathways relating to this type of use are incomplete.

Although direct exposures to groundwater will not occur; indirect exposures are possible. The primary indirect exposure pathway from groundwater is the infiltration of VOCs from soil and groundwater to indoor air. In addition, residual levels of chemicals in soil may leach and impact groundwater quality beneath the Site.

2.5.2 Inter-Media Transfers

Exposure to Site chemicals may be direct, as in the case of impacted surface soil, or indirect following inter-media transfers. Impacted soil is the initial source for inter-media transfers at the Site, which can be primary or secondary. For example, upward migration of VOCs from impacted subsurface soil into ambient air thereby reaching a point of human inhalation represents a secondary inter-media transfer.

These inter-media transfers represent the potential migration pathways that may transport one or more chemicals to an area away from the Site where a human receptor could be exposed. Discussions of each of the identified potential transfer pathways are presented below. Figure 7 presents a conceptualized diagram of the inter-media transfers and fate and transport modeling for the Site.

Five initial transfer pathways for which chemicals can migrate from impacted soil to other media have been identified. The first of these pathways is volatilization from soil and upward migration from soil into ambient air. Ambient air can be both indoor and outdoor air. The pathway of volatilization from both soil and groundwater and upward migration into ambient air was evaluated using the surface flux measurements collected. The secondary transfer pathway is downward migration of chemicals from soil to groundwater. The third transfer pathway is migration of chemicals in surface soil via surface runoff to sediments or surface water bodies. However, as discussed in Section 2.2.3 because of the nature of the ponds and their construction, the distance from the Site to the Wash, and the intervening housing developments, it is unlikely that surface waters drain to the Las Vegas Wash from the Site. Therefore, the surface water pathway was not evaluated in this risk assessment. The fourth transfer pathway is on-site fugitive dust generation. Finally, chemicals in soil can be transferred to plants grown on the Site via uptake through the roots. The plant uptake pathway is typically evaluated for residential receptors.

2.5.3 Potential Human Exposure Scenarios

The following section summarizes land use and the human exposure scenarios that are assessed herein.

2.5.3.1 Current and Future Land Use

Current receptors that may use the Site include trespassers, occasional on-site workers, and off-site residents. Current exposures to native soils at the Site are likely to be minimal. In addition, exposures to future receptors will be much greater than current exposures. For example, future receptors evaluated in the HHRA include on-site residents who are assumed to be exposed to soil at the Site for 350 days per year for 30 years, which is much greater than any current exposures. In addition, as discussed above, exposures to current receptors are being managed through site access control. Therefore, a current land use scenario is not quantitatively evaluated in this risk assessment.

USEPA risk assessment guidance (USEPA 1989) states that potential future land use should be considered in addition to current land use when evaluating the potential for human exposure at a Site. As indicated above, under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing, parks, schools, commercial development, and streets. The entire Site will be enhanced by restoration and redevelopment once remediation is complete.

The entire Eastside property will be redeveloped in several phases. Throughout the redevelopment process, the sub-areas of the Site will be redeveloped sequentially. Future receptors identified as "on-site receptors" are defined as receptors located within the current Site boundaries (Figure 1), while future "off-site receptors" are those located outside the current Site boundaries. "On-site receptors" are those future receptors that will be located within the sub-area under evaluation. "Off-site receptors" are those future receptors that will be located outside of the sub-area under evaluation that may have complete exposure pathways associated with sources within the sub-area. As noted above, remediation of the Site is to on-site residential standards. Consequently, risks to off-site receptors are addressed qualitatively in this risk assessment.

2.5.3.2 Identification of Potentially Exposed Populations and Pathways

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 presented on Figure 7 and summarized below. For a complete exposure pathway to exist, each of the following elements must be present (USEPA 1989):

- A source and mechanism for chemical release;
- An environmental transport medium (*i.e.*, air, water, soil);
- A point of potential human contact with the medium; and
- A route of exposure (*e.g.*, inhalation, ingestion, dermal contact).

As presented in Section 9 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), the following are the primary exposure pathways for each of the potential receptors following remediation at the Site.

- Adult and child residents[10]
  - incidental soil ingestion*
  - external exposure from soil†
  - dermal contact with soil
  - consumption of homegrown produce*
  - outdoor inhalation of dust*‡
  - indoor inhalation of dust*‡
  - outdoor and indoor inhalation of VOCs from soil and groundwater

- Indoor commercial workers
  - incidental soil ingestion*
  - external exposure from soil†
  - indoor inhalation of VOCs from soil and groundwater

- Outdoor maintenance workers
  - incidental soil ingestion*
  - external exposure from soil†
  - dermal contact with soil
  - outdoor inhalation of dust*‡
  - outdoor inhalation of VOCs from soil and groundwater

[10] On-site receptors evaluated quantitatively; off-site receptors evaluated qualitatively.

- Construction workers
  - incidental soil ingestion*
  - external exposure from soil†
  - dermal contact with soil
  - outdoor inhalation of dust*‡
  - outdoor inhalation of VOCs from soil and groundwater

*Includes radionuclide exposures.
†Only radionuclide exposures.
‡Includes asbestos exposures.

Although trespassers/recreational users and downwind off-site residents are other potential receptors identified in the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007, Section 9 revised in March 2010), exposures for these receptors are less than those evaluated above. As noted in Sections 9.1.1 and 9.7.1 of the Closure Plan, potential exposures for trespassers/recreational users will only be evaluated in areas of the BMI Common Areas that are designated as recreational end use (specifically the Western Hook-Open Space sub-area shown on Figure 1). Also, as noted in Section 9.5.4 of the Closure Plan, off-site dust levels based on USEPA's model are much lower than those generated for on-site construction-related activities. Therefore, risks evaluated for an on-site construction worker, as are performed in this HHRA, are considered protective of off-site residents. Thus, trespassers/recreational users and downwind off-site receptors are not evaluated further in this report.

3.0 CONFIRMATION DATA PROCESS AND SUMMARY

Based on the historical data for the Site, no additional remediation was proposed prior to implementing the sampling presented in the SAP beyond the historical remediation activities that are described in Section 2.4. Decisions for additional excavation during SAP implementation were based on the initial data (discussed below) in accordance with the Risk Assessment Methodology provided in the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007, Section 9 revised in March 2010). The following is the initial 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).

3.1 INITIAL CONFIRMATION SOIL SAMPLING

As per Section 2 of the *Statistical Methodology Report*, the initial confirmation sampling at the Site was conducted on the basis of combined random and biased (judgmental) sampling, as follows:

- **Stratified Random Locations:** For this purpose, the Site was covered by a 3-acre cell grid network. Within each 3-acre cell, a sampling location was randomly selected. Sampling locations were randomly selected within both full and partial grid cells if they were 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 were included in the adjacent sub-area SAPs). The main objective of this stratified random sampling was to provide uniform coverage of the Site.

- **Biased Locations:** Additional sampling locations were selected within or near small-scale contamination points of interests, including but not limited to previous debris locations, ponds, and berms. For this purpose, the randomly selected location within a corresponding 3-acre cell was adjusted in order to cover a nearby point of interest. In the event that currently unknown impacted areas were identified during remediation, the presence of these areas were drawn to NDEP's attention, and the need for additional biased sampling points to address those areas was evaluated, and the sampling program modified as needed.

A reconnaissance of the Site was performed to check the Site for environmentally significant features such as debris piles or stained soil. Biased sampling locations for the Site were based on the outcome of this reconnaissance. Figure 8 and accompanying Table 1 show the random sampling locations collected within the Site. No debris piles or other stained soil locations were observed on the Site, however, some other site features were identified for additional, biased, sampling. Rationale for each of the biased sampling locations is presented below:

- MC1-J01 and MC1-J09 through MC1-J17 were was added to provide additional coverage within former ponds;
- MC1-J02; MC1-J03, MC1-J04, MC1-J06, MC1-J07, and MC1-J08 were added to provide coverage within various pond berms;
- MC1-J05 and MC1-J20 were added to provide coverage within a drainage channel along the northeastern Site boundary; and
- MC1-J18 and MC1-J19 were added to provide additional coverage within former ponds west of Mohawk Drive.

The following discusses the multi-depth soil samples that were collected and analyzed for the Site-related chemical (SRC) list at each selected location. Samples were collected at:

1. Existing surface (0 ft bgs) and 10 ft bgs for sample locations in relatively flat (un-graded) locations;
2. Existing surface (0 ft bgs), post-grading surface, and post-grade 10 ft bgs for sample locations with substantial grading (that is, cut depths greater than two feet[11]) and the uppermost sampled soil is expected to be used as surface fill;
3. Existing surface (0 ft bgs) and 10 ft 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 ft bgs) and 10 ft bgs for sample locations in an area expected to be covered by fill material.

Additionally, at two sample locations (MC1-J11 and MC1-AY36), one within a pond and one outside the ponds, soil physical parameter data were collected at 20 feet and every subsequent 10 feet until groundwater was reached, whichever was shallower.

[11] Because sample collection was over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet were only sampled at the surface and one post-grade subsurface depth. The sample depth designation (*i.e.*, 10 feet bgs) is based on the center depth of the sample collection interval.

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

- **Rule 1: IF** the sample was 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 is used to designate its soil layer grouping.

- **Rule 2: IF** the sample was 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 is classified as a surface (0-2 ft depth) sample, and the soil layer grouping of the remaining deeper sampled soil is 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 is classified as a fill material sample, a final (post-graded) surface sample is classified as a surface (0-2 ft depth) sample, and the soil layer grouping of the remaining deeper sampled soil is determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.

- **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 is classified as both a fill material sample and as a surface (0-2 ft depth) sample, and the soil layer grouping of the remaining deeper sampled soil is 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 9. The current Site grading plan is shown on Figure 6.[12] The sample-specific collection depths are presented in Table 1.

[12] Note that the grading plan will be reflected in an Environmental Covenant for the Site as a condition to receiving an NFAD from NDEP.

As noted above, soil samples were generally collected over a two to three foot depth interval. This was because of the amount of sample volume required for all the analyses to be completed. The 10 ft bgs (and deeper) samples were collected in 2-3 ft intervals centered on 10 ft (or centered on the deeper sample depth as indicated in Table 1). Confirmation samples, which usually have a shortened analyte list were collected over a smaller sample interval. Because surface releases of chemicals have been identified as the source of elevated concentrations at the Site, historical contamination is usually found predominately in surface soils. The primary objective of remedial actions at the Site was to remove surface soils that were impacted by Site-related surface releases of chemicals. Therefore, higher concentrations are expected (and have been generally observed) in surface samples. In order to adequately characterize the vertical extent of possible contamination, one or more deeper samples were also collected at each sample location, as described above.

As discussed in Section 6.1.1, given the uncertainties in the current grading plan, samples were classified into five different exposure depths. These different soil exposure depth classifications are considered to represent all possible exposure potential for all receptors, and thus a reasonable worst case scenario has been assessed. The five different exposure depths evaluated were the following:

- All data; includes surface, subsurface and fill sample depths/locations, representative of potential exposures to all soil depths to a maximum post-grading depth of 10 feet bgs (representative of Site exposures if fill material remains on-site);

- Data classified as fill material only; that is, sample locations with substantial grading (cut depths greater than two feet) and the uppermost sampled soil is expected to be used as surface fill, including off-site;

- Data classified as fill material and/or surface soil, sample locations with cut depths less than two feet, therefore, given the sample depth interval soil could represent either fill or post-grading surface soil;

- Data classified as surface soil only, includes surface sample locations where no grading will occur, or sample locations where fill material will be placed, with a subsurface sample (those samples collected less than 10 feet bgs) collected at the post-grading surface; and

- All data excluding data classified as fill material, representative of exposure to all post-grading soil to a maximum post-grading depth of 10 feet bgs.

These different soil exposure classifications are considered to represent all possible exposure potential for all receptors, including use of soil as fill material elsewhere in the Eastside property, based on the future grade and use of Site soils. See Section 6.1.1 regarding how these difference exposure depths are considered in the HHRA.

Initial sampling for the Site was conducted in June/July 2008. All soil samples were tagged in the database with numeric designations of their corresponding assigned soil layer grouping based on these rules. The number of soil samples collected varies for different analytes and analytical suites. For example, for arsenic, initially 102 soil samples were collected from 38 soil boring locations (including field duplicates). This included 18 random and 20 biased sample locations. At these 38 locations, BRC initially collected 47 surface samples (one at each location, and duplicates at nine locations) and 55 subsurface soil samples (two subsurface sampling intervals at 17 of the 38 soil boring locations). As presented in Table 1, these 102 samples represent 42 fill material (including nine duplicates), 43 surface (including five duplicates), and 38 subsurface soil samples.[13] Twenty-one of the surface soil samples (including duplicates) also represent Fill samples (see discussion above regarding Fill samples).[14] An additional eight supplemental samples (including one duplicate) and 25 confirmation samples (including three duplicates) were subsequently collected (see Section 3.3), bringing the total number of arsenic samples for the Site to 135 (102 initial samples, eight supplemental samples, and 25 confirmation samples).[15] Of the 135 arsenic samples, 21 were in remediated areas and removed from the risk assessment dataset; thus, as shown in Table 4, there are 114 arsenic samples included in the human health risk assessment dataset. The numbers of soil samples included in the human health risk assessment dataset for each analyte are shown in Table 4. All sample results, from which the total number of samples can be found for each analyte, are presented electronically on the report CD in Appendix B, and in Tables B-1 through B-12. As discussed below in Section 3.5, different data distributions were identified for cobalt in PUC-2 and vanadium in PUA-3; therefore, these

[13] Note that in some cases a soil sample may be considered both a fill sample and a surface sample (as indicated in Table 1). 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.

[14] 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).

[15] Note that in Table 4, which summarizes the post-remediation HHRA samples, the number of samples reported in that table for a given analysis does not always equal 135. This is due to 1) exclusion of data that were removed during remediation activities; 2) inclusion in the final dataset of supplemental samples collected to assess the extent of chemical impacts in certain areas; 3) certain analytes were not included in the subsurface samples, as noted in the following section; and 4) rejected data are excluded.

ponds were evaluated separately for these two metals. The numbers of samples for these two areas were 13 for cobalt in pond PUC-2 and eight for vanadium in pond PUA-3.

3.2 CHEMICALS SELECTED FOR ANALYSIS

The analyte list for soil samples collected during the initial June/July 2008 investigation comprised the BRC project SRC list, and was consistent with the analytical program presented in Section 3 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010)[16] and Table 2, with the following exceptions for this Site:

- Asbestos and dioxins/furans were only analyzed for in surface soil samples; (note that all samples collected at the Site were discrete samples, with the exception of asbestos samples, which were composite samples collected as per the NDEP-approved Standard Operating Procedure [SOP]-12 as provided in the *Field Sampling and Standard Operating Procedures* [FSSOP; BRC, ERM and MWH 2009]).

- USEPA Method 8141A for organophosphorous pesticides was not 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 any soil sample records within the Site. The few detections are well below NDEP BCLs;

- USEPA Method 8151A for chlorinated herbicides was not conducted. There have been no detections of these compounds in over 1,400 soil sample records from throughout the Eastside. Detection limits are below NDEP BCLs;

- HPLC Method for organic acids was not conducted. There have been only three detections of these compounds in 567 soil sample records (<0.5 percent) from throughout the Eastside. NDEP BCLs have not been established for these compounds;

- USEPA Method 8015B for non-halogenated organics (*i.e.*, methanol and glycols) was not conducted. There have been only five detections of these compounds in 420 soil sample records (one percent) from throughout the Eastside. The few detections have been well below NDEP BCLs;

- USEPA Method 8015 for total petroleum hydrocarbons (TPH) was not conducted. There have been only three detections of these compounds in over 299 soil sample records (one

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

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 There are no indications of possible TPH source areas, for example, debris, abandoned vehicles, in the Site. While TPH was not analyzed for, its components were 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 were analyzed for: radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238.

The soil analyte list consisted of 319 of the 418 compounds (including water only parameters) on the project SRC list as well as physical parameters to support the evaluation of potential impacts to groundwater from migration of chemicals from soil. The analytical and preparatory methods (see Table 2) used in accordance with the SAP adhered to the most recent version of the *BRC Quality Assurance Project Plan* (QAPP; BRC and ERM 2009a – see Section B4, Table 4 of that document). As noted in Section 3.6, the analyte list for surface flux samples was comprised of the list specified in the NDEP-approved SOP-16 (as provided in the FSSOP (BRC, ERM and MWH 2009). Surface flux samples were analyzed for VOCs by full USEPA Method TO-15 full scan, plus selective ion mode (SIM) analyses for a subset of the analytes.

3.3 INTERMEDIATE SAMPLING AND CLEANUP

Several results from this initial sampling event were re-analyzed by the laboratory due to unexpectedly high initial concentrations in subsurface samples. These re-analyses were for radionuclides for the sample collected at location MC1-AX40 at 15 feet bgs, for arsenic for the sample collected at location MC1-AX40 at 5 feet bgs, and for thallium for the sample collected at location MC1-AW39 at 12 feet bgs. In all cases, the re-analysis results were lower than the original results. Because these re-analysis results are essentially split samples, consistent with NDEP guidance (NDEP 2008a), the original sample result and re-analysis result(s) were averaged, and the average value was used in subsequent evaluations.[17]

In October 2008, seven samples (MC1-A01 through MC1-A07) were collected in the northern portion of the Site and analyzed for asbestos to provide further delineation of the extent of elevated asbestos levels detected in this area. Supplemental samples (MC1-J25 through

[17] Re-analysis results are indicated with a 'ReA' qualifier in Appendix B. Average values are indicated with an 'A' qualifier in Appendix B.

MC1-J27) were also collected in November 2008 at three locations within pond PUA-1 to evaluate an elevated historical vanadium detection (October 1999). These three samples were analyzed for metals.

3.3.1 January 2009 Removal Action

All data were reviewed and a determination made, in consultation with NDEP, as to whether localized soil removals were warranted. In December 2008, BRC submitted a Removal Action Work Plan (RAWP; BRC 2008b) to NDEP. This RAWP was approved by NDEP on December 5, 2008. The overall goal of the RAWP was to present a cleanup strategy for the Site that effectively reduces, to the extent feasible, the human health risks associated with the identified soil in the impacted areas of the Site.

There were three different types of remediation areas proposed for the Site. These were areas associated with 1) elevated asbestos levels, 2) residual pond contamination, and 3) dioxins/furans concentrations above comparison levels in non-pond areas.

The remediation areas associated with elevated asbestos levels were developed based on a Thiessen or Voronoi map overlaid across the Site. Voronoi maps are constructed from a series of polygons formed around each sample location. Voronoi polygons are created so that every location within a polygon is closer to the sample location in that polygon than any other sample location. These polygons do not take into account the respective concentrations at each sample location. These polygons were used as the basis for the areal extent of remediation for each of the locations with elevated asbestos levels. Elevated asbestos levels were generally defined as locations with any detected long amphibole fibers and/or locations with greater than five long chrysotile fibers. There were two polygons (MC1-AV37 and MC1-AZ37) associated with elevated asbestos levels that were remediated at the Site. In addition, there was one sample location (MC1-AW37) with eight long chrysotile fibers within a pond. This pond also contains elevated concentrations of other constituents, therefore, remediation of this location was based on that particular pond footprint, as discussed below.

Because the ponds at the Site are well defined, remediation for these areas was based on the current footprint of each pond with elevated chemical concentrations (generally near or above residential comparison levels). There were two ponds with elevated chemical concentrations detected in the June 2008 sampling event: PUA-3 and PUC-2. Therefore, the full extent of these ponds within the Site was proposed for additional remediation. However, these ponds have been bisected by Mohawk Drive, therefore, the remediation was the entire pond area to the east of

Mohawk Drive (within the Site). Constituents triggering these ponds' remediation were chrysotile asbestos, thallium and vanadium in historical samples in pond PUC-2, and total chromium and vanadium in the recent samples in pond PUA-3. These pond remediation areas are shown on Figure 10.

As noted above, historical composite data from pond PUA-1 indicated the potential for elevated levels of vanadium. Therefore, additional confirmation sampling was conducted in November 2008. None of the first round of confirmation samples (June 2008), or the three additional confirmation samples indicated the presence of elevated levels of vanadium in pond PUA-1. Therefore, no additional remediation was conducted for this pond.

Based upon the CSM which does not specifically identify on-site dioxin sources, the extent of impact associated with non-pond sample locations with elevated dioxins/furans is likely to be small, the remediation areas were based on a 50-foot square area around these sample locations. Two non-pond remediation areas[18] depicted in Figure 10 were associated with elevated dioxins/furans levels; these remediation areas were associated with samples MC1-AV38 and MC1-AY36 (see Figure 8).

Following remediation, confirmation surface soil samples were collected at each of the original sample locations for the asbestos remediation areas. Samples were collected from the original sample locations and from each of the four corners of the remediation area at the two dioxin/furans remediation areas. Two surface soil samples were collected from each of the remediated ponds. In addition to these confirmation surface soil samples, in its December 5, 2008 approval letter NDEP requested that two sidewall samples be collected from the berms of each of the two pond remediation areas (samples MC1-J28, MC1-J29, MC1-J30, and MC1-J31 from ponds PUA-3 and PUC-2). All sample locations are shown on Figure 11. The analyte list was composed of those chemicals that triggered the remediation at each sample location. These included dioxins/furans, metals, and asbestos. As requested by NDEP, the four berm samples were analyzed for metals, radionuclides, organochlorine pesticides, polynuclear aromatic hydrocarbons (PAHs), and SVOCs.

[18] Figure 8 does not include the specific sample locations that triggered remediation for a given area; the reader is referred to Figure 5 for specific sampling locations. The two dioxin/furan (non-pond) remediation areas in question are depicted on Figure 8 as two relatively small, square areas, one north of the ponds, and one south of the ponds.

3.3.2 April 2009 Removal Action

Following the review of data collected from the January 2009 removal action, three additional remediation areas were identified for the Site. BRC submitted the RAWP for this work to NDEP on March 10, 2009 (BRC 2009a). The RAWP was approved by NDEP on March 10, 2009. The rationale for each additional remediation area is presented below.

- Pond PUC-2; confirmation samples collected from the berms around this pond contained elevated levels of metals and radionuclides, while samples within the pond did not. Therefore, additional remediation and confirmation sampling was conducted for the berms themselves.

- Pond PUA-3; confirmation samples collected from the berms around this pond contained elevated levels of metals and radionuclides while samples within the pond contained elevated levels of metals only. Therefore, additional remediation and confirmation sampling was conducted for both the pond and berms.

- Original sample location MC1-AV38; surface remediation and confirmation sampling was conducted at this location for metals, radionuclides, and dioxins/furans. Confirmation samples contained elevated levels of metals and radionuclides, but not dioxins/furans. In addition, step-out samples did not contain elevated levels of any constituents. Therefore, additional remediation with the same footprint as the first remediation, but to a depth of three feet bgs was conducted with a single confirmation sample.

These three additional remediation areas are shown on Figure 10. As before, the analyte list was composed of those chemicals that triggered the remediation at each sample location. These included metals and radionuclides.

3.3.3 June 2009 Removal Action

Following the review of data collected from the April 2009 removal action, three additional remediation areas were identified for the Site. BRC submitted the RAWP for this work to NDEP on May 28, 2009 (BRC 2009b). The RAWP was approved by NDEP on May 28, 2009. The rationale for each additional remediation area is presented below.

- Pond PUC-2; confirmation samples collected from three of the four berm samples around this pond contained elevated levels of metals and radionuclides. Therefore, additional remediation and confirmation sampling was conducted for two berm areas around these three sample locations.

- Pond PUA-3; confirmation samples collected from the berms around this pond contained elevated levels of metals and radionuclides, while samples within the pond did not. Therefore, additional remediation and confirmation sampling was conducted for berm areas around the three sample locations with elevated levels.

These three additional remediation areas are shown on Figure 10. As before, the analyte list was composed of those chemicals that triggered the remediation at each sample location. These included metals and radionuclides.

Several results from this final sampling event were re-analyzed by the laboratory due to unexpectedly high initial concentrations in some samples. These re-analyses were for cobalt, which did not have elevated levels prior to this final sampling event, for samples MC3-J45 and MC3-J46 (both original and field duplicate samples); and for vanadium and total chromium for sample MC3-J43. In all cases, the re-analysis results were lower than the original results. As discussed above, an average was calculated from the original result and re-analysis results, and the average value was used in subsequent evaluations.

3.4 FINAL CONFIRMATION DATASET

The final confirmation dataset included the following sampling results:

- SAP sampling data, retaining only the results that were not superseded by subsequent sampling. [Note: Post-scrape analyses associated with follow-up rounds of remediation focused on the analytes triggering that additional remediation, and did not include the full suite analyses of the original analytical program. Therefore, analytical results from the original SAP dataset were retained for all analytes except those that were re-analyzed after additional scraping];

- Data generated after intermediate sampling and cleanup (retaining only the results that were not superseded by subsequent sampling); and

- Additional biased and random soil and surface flux samples collected for confirmation after completion of remediation activities.

The soil dataset was subjected to a series of statistical analyses in order to determine representative exposure concentrations for the sub-area, as described in Sections 4 and 5 of the *Statistical Methodology Report* (NewFields 2006). Consistent with the project *Statistical Methodology Report*, kriging or geostatistical analysis was not performed on the data because each measurement was assumed to be equally representative for that chemical at any point in each sub-area of the Eastside property. Hence, calculation of the 95 percent upper confidence limit (UCL) by exposure area directly from the data is considered reasonable.

As discussed in Section 4, all data have been validated. Results of all confirmation sampling and analysis are presented in Appendix B, and electronically on the report CD in Appendix B, as is the dataset used in the HHRA for the Mohawk sub-area. All confirmation sample locations for the Site are shown on Figure 11. Table 3 provides a matrix of which analytical suite was analyzed for in each of the samples collected at the Site. Geotechnical and Environmental Services (GES) conducted all field work at the Site. The GES field reports, including boring logs, for each investigation are provided electronically in Appendix C (included on the report CD in Appendix B).

3.5 FINAL CONFIRMATION DATA SUMMARY

Using the compound-specific information presented in Table 2 of the QAPP (BRC and ERM 2009a), the comparison levels for each chemical included in the investigation were compiled and compared. Specific soil comparison levels used for this effort were as follows:

- NDEP BCLs for residential soil (NDEP 2010a);
- NDEP BCLs for protection of groundwater (LBCL), assuming dilution attenuation factors (DAF) of 1 and 20 (NDEP 2010a); and
- The maximum background concentration (for metals and radionuclides only), derived from the background soil dataset for the BMI Common Areas presented in *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2009b; approved by NDEP on September 17, 2009) (see Section 6.1).

A DAF of one is used when little or no dilution or attenuation of soil leachate concentrations is expected, and a DAF of 20 may be used when significant attenuation of the leachate is expected due to site-specific conditions. For the Site, the LBCLs based on a DAF of 1 were used for discussion purposes. A summary of the data for the Site, including identification of number of instances that chemical concentrations exceed each of the comparison levels are listed in

Table 4,[19] and summarized below. It is important to note that these comparisons are used to provide for an initial screening evaluation, to assist in the evaluation of data usability, and determination of extent of contamination. They are not used for decision making purposes, or as an indication of the risks associated with the Site.

Aluminum

Aluminum was detected in all of the Site soil samples in which it was analyzed (114 samples, 59 surface and 55 subsurface samples; Table B-5). All of the detections were lower than the 77,200 mg/kg BCL, but were higher than the 75 mg/kg $LBCL_{DAF1}$. However, none exceeded the 15,500 mg/kg maximum background concentration.

Antimony

Of the 114 Site soil samples in which antimony was analyzed (59 surface and 55 subsurface samples; Table B-5), antimony was detected in only one. This detection was lower than the 31 mg/kg BCL, but was higher than the 0.3 mg/kg $LBCL_{DAF1}$ and the 0.61 mg/kg maximum background concentration. This exceedance (1.1 mg/kg) was associated with the surface soil sample collected at MC1-J02.

Arsenic

Arsenic was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). All of the detections were higher than the 0.39 mg/kg BCL and the 1 mg/kg $LBCL_{DAF1}$. However, none had reported arsenic concentrations in excess of the maximum shallow soil background level (27.6 mg/kg).

Barium

Barium was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 15,300 mg/kg BCL, but all of the barium detections exceeded the 82 mg/kg $LBCL_{DAF1}$. However, only seven of the detections exceeded the maximum background concentration of 755 mg/kg. These seven samples with barium detections greater than background, were as follows:

[19] Pre-scrape data for the target constituents are not included in Table 4, that is, these have been replaced by post-scrape data; however, pre-scrape data for the non-target constituents are included in Table 4. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in the tables in Appendix B, which include all data, regardless of status.

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J12	11	6/25/2008	765
MC1-J18	0	7/7/2008	769
MC1-J08	19	6/23/2008	783
MC1-J02	0	6/26/2008	796
MC1-J11	4	6/24/2008	870
MC1-AV38	11	6/24/2008	957
MC3-J45	0	6/18/2009	1190

Total Chromium

Total chromium was detected in all of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 100,000 mg/kg BCL, but all of the total chromium detections were higher than the 2 mg/kg $LBCL_{DAF1}$. However, only 11 detections were higher than the 23.6 mg/kg maximum background detection. These 11 total chromium exceedances higher than background are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J02	0	6/26/2008	24.6
MC1-J27	0	11/26/2008	35.7
MC1-J21	0	1/6/2009	39.8
MC1-J26	0	11/26/2008	44.8
MC2-J39	0	4/23/2009	51.5
MC2-J33	0	4/23/2009	52.8
MC1-J23	0	1/6/2009	79.6
MC1-AW36	12	7/7/2008	83.7
MC1-AW38	0	6/24/2008	128
MC3-J41	0	6/18/2009	177
MC3-J43	0	6/18/2009	352

Hexavalent Chromium

Hexavalent chromium was detected in 39 of the 111 Site soil samples in which it was analyzed (56 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 230 mg/kg BCL. However, four detections were higher than the 2 mg/kg $LBCL_{DAF1}$ and the 0.56 mg/kg maximum background detection. These four hexavalent chromium exceedances are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC3-J43	0	6/18/2009	2.4
MC1-J30	0	1/6/2009	3.2
MC1-AW38	0	6/24/2008	4.1
MC1-J31	0	1/6/2009	4.4

Copper

Copper was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 2,910 mg/kg BCL. However, two detections were higher than the 35 mg/kg $LBCL_{DAF1}$. These two LBCL exceedances were also higher than the 36.2 mg/kg maximum background detection, and are associated with surface soil samples collected at locations MC1-AW38 and MC3-J43 (44.9 mg/kg and 81.5 mg/kg, respectively).

Iron

Iron was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 54,800 mg/kg BCL, but all of the detections were higher than the 7.5 mg/kg $LBCL_{DAF1}$. However, none of the detections were higher than the 21,700 mg/kg maximum background detection.

Magnesium

Magnesium was detected in all of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 100,000 mg/kg BCL, but all of the detections were higher than the 650 mg/kg $LBCL_{DAF1}$. However, all but one of the magnesium detections were lower than the 15,000 mg/kg maximum background detection. That exceedance (21,800 mg/kg) was associated with a sample collected from 11 feet bgs at MC1-AY39.

Manganese

Manganese was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). Of these detections, 12 were higher than the 1,080 mg/kg BCL. These BCL exceedances are associated with the following samples:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-AW38	12	6/24/2008	1130
MC1-AX36	13	6/30/2008	1140
MC3-J46	0	6/18/2009	1150
MC1-AW37	0	6/25/2008	1260
MC1-J23	0	1/6/2009	1290
MC1-AW36	0	7/7/2008	1350
MC3-J45	0	6/18/2009	1360
MC3-J44	0	6/18/2009	1400
MC3-J46	0	6/18/2009	1470
MC1-J24	0	1/6/2009	1980
MC1-J05	0	7/1/2008	2020
MC1-AV38	11	6/24/2008	2120

In addition, all of the detections were higher than the 3.3 mg/kg $LBCL_{DAF1}$. With the exception of one detection (2,120 mg/kg in a sample collected from 11 feet bgs at MC1-AV38), the manganese detections were lower than the maximum background concentration for manganese (2,070 mg/kg).

Molybdenum

Molybdenum was detected in 63 of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 390 mg/kg BCL. However, one detection (14.4 mg/kg) was higher than the 3.6 mg/kg $LBCL_{DAF1}$ (sample collected from 12 feet bgs at MC1-AW36). This detection was also higher than the 2.3 mg/kg maximum background detection.

Nickel

Nickel was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of these detections exceeded the 1,540 mg/kg BCL, however, all but two were higher than the 7 mg/kg $LBCL_{DAF1}$. However, most of the detections were lower than the maximum background concentration for nickel (22 mg/kg). The 16 detections that are higher than the maximum background concentration are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC3-J42	0	6/18/2009	22.3
MC1-J18	0	7/7/2008	22.3

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J26	0	11/26/2008	24
MC3-J46	0	6/18/2009	24.2
MC1-J23	0	1/6/2009	24.3
MC2-J39	0	4/23/2009	25.1
MC3-J43	0	6/18/2009	25.7
MC3-J45	0	6/18/2009	25.8
MC3-J46	0	6/18/2009	27.4
MC1-J26	0	11/26/2008	28.4
MC1-J27	0	11/26/2008	29.7
MC1-AW38	0	6/24/2008	32
MC3-J41	0	6/18/2009	32.7
MC1-J24	0	1/6/2009	36.4
MC2-J32	0	4/23/2009	42.6
MC2-J33	0	4/23/2009	45.3

Thallium

Thallium was detected in only 7 of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). One of the detections were higher than the 5.5 mg/kg BCL. This exceedance (6.97 mg/kg) was associated with the sample collected from 12 feet bgs at MC1-AW39. In addition, six of the thallium detections were higher than the 0.4 mg/kg $LBCL_{DAF1}$; only three of those detections were higher than the 2 mg/kg maximum background detection. These three thallium exceedances higher than background are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J24	0	1/6/2009	2.2
MC1-J23	0	1/6/2009	3.2
MC1-AW39	12	6/24/2008	6.97

Vanadium

Vanadium was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). One of these detections was higher than the 390 mg/kg BCL and the 300 mg/kg LBCL. That detection (458 mg/kg) was associated with a surface soil sample at MC3-J43, and was also higher than the 55.3 mg/kg maximum background detection.

Other Inorganics

As seen in Table 4 and Tables B-4 in Appendix B, several inorganic constituents in addition to those listed above were routinely detected in soil samples. None of these additional inorganic constituents were detected at concentrations in excess of either the BCL or the $LBCL_{DAF1}$. The reporting limits for these additional inorganic constituents were generally sufficiently low such that concentrations in excess of the BCL or $LBCL_{DAF1}$, if present, would have been reported.

Organochlorine Pesticides

Organochlorine pesticides were analyzed for in 107 Site soil samples (52 surface and 55 subsurface samples; Table B-6). The following analytes were detected in at least one sample: 2,4-DDE, 4,4-DDE, 4,4-DDT, beta-BHC, and endrin aldehyde. 2,4-DDE and 4,4-DDE were the most commonly detected (in 21 percent of the samples in which they were analyzed). Most of the detections were lower than the BCL and/or $LBCL_{DAF1}$. However, all 7 of the beta-BHC detections were higher than the 0.0001 mg/kg $LBCL_{DAF1}$. [Note: All of these detections were lower than the 0.32 mg/kg BCL]. Those seven LBCL exceedances were associated with the following samples:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J03	0	6/26/2008	0.0018
MC1-J06	8	6/25/2008	0.0018
MC1-J16	0	6/26/2008	0.0019
MC1-J11	0	6/24/2008	0.002
MC1-J28	0	1/6/2009	0.0022
MC1-AV37	11	6/24/2008	0.0042
MC1-AV38	0	6/24/2008	0.0063

The reporting limits for organochlorine pesticides were sufficiently low such that concentrations in excess of the comparison levels, if present, would be reported.

Volatile Organic Compounds

VOCs were analyzed for in 102 Site soil samples (47 surface and 55 subsurface samples; Table B-11). As seen in Table 4 and Table B-11, 13 VOCs were detected in at least one sample:

- 1,1,1,2-Tetrachloroethane
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- Acetone

- Acetonitrile
- Benzene
- Dichloromethane
- Ethanol
- Ethylbenzene
- 1-Nonanal
- Methyl ethyl ketone
- m,p-Xylene
- Toluene

1,2,4-trimethylbenzene was detected the most frequently, in 18 percent of the samples. None of the detections were above the BCL. With the exception of dichloromethane, the VOC detections were also lower than the $LBCL_{DAF1}$. Dichloromethane was detected in the following 15 soil samples at concentrations in excess of the 0.001 mg/kg $LBCL_{DAF1}$:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J03	0	6/26/2008	0.0046
MC1-AV38	11	6/24/2008	0.0059
MC1-AW39	12	6/24/2008	0.0067
MC1-J11	0	6/24/2008	0.0075
MC1-J11	4	6/24/2008	0.0082
MC1-J11	14	6/24/2008	0.0083
MC1-AV37	11	6/24/2008	0.009
MC1-AV37	0	6/24/2008	0.0091
MC1-J09	0	6/24/2008	0.0093
MC1-AW38	0	6/24/2008	0.011
MC1-J09	10	6/24/2008	0.011
MC1-AW38	12	6/24/2008	0.011
MC1-AW39	0	6/24/2008	0.012
MC1-AV38	0	6/24/2008	0.016
MC1-AV38	0	6/24/2008	0.019

The standard reporting limits were lower than the BCL and $LBCL_{DAF1,}$ and concentrations in excess of these screening levels, if present, would have been reported.

Semi-Volatile Organic Compounds

SVOCs were analyzed for in 107 Site soil samples (52 surface and 55 subsurface samples; Table B-10). As seen in Table 4 and Table B-10, SVOCs were not routinely detected. Only two SVOCs were detected: benzyl butyl phthalate (1 detection) and bis(2-ethylhexyl)phthalate (3 detections). All four detections were lower than the BCL and the $LBCL_{DAF1}$. For SVOC non-detects, the standard reporting limits were lower than the BCL, except for dichloromethyl ether, which routinely had reporting limits higher than the BCL. With the exception of this compound, concentrations in excess of the BCL, if present, would have been reported for SVOCs. For several other SVOCs the reporting limits are higher than the $LBCL_{DAF1}$, and it is unknown whether these constituents are present in those samples at concentrations in excess of the $LBCL_{DAF1}$. The analytes with reporting limits routinely higher than the $LBCL_{DAF1}$ are as follows:

- 2,2'-/4,4'-Dichlorobenzil
- 2,4,6-Trichlorophenol
- 2,4-Dinitrophenol
- 2,4-Dinitrotoluene
- 2,6-Dinitrotoluene
- 3,3'-Dichlorobenzidine
- bis(2-chloroethyl)ether
- Carbazole
- Hexachloroethane
- Isophorone
- Nitrobenzene
- n-Nitrosodi-n-propylamine
- p-Chloroaniline
- Pentachlorophenol

Dioxins and Furans

For dioxins/furans, as discussed in Section 1.1, the USEPA TEQ procedure, developed to describe the cumulative toxicity of these compounds, is used. Dioxins and furans were analyzed for in 71 Site soil samples (54 surface and 17 subsurface samples; Table B-3). All of the individual dioxins and furans congeners analyzed were reported as detections in at least one sample. None of the samples analyzed had calculated TCDD TEQ concentrations in excess of the NDEP BCL of 50 ppt. $LBCL_{DAF1}$ values have not been established for dioxin/furans; thus the potential for impacts to groundwater quality due to their presence could not be assessed by comparisons to these levels.

Polychlorinated Biphenyls

PCBs were analyzed for in 74 Site soil samples (Aroclors and/or individual congeners) (54 surface, 20 subsurface; Table B-8).[20] Aroclors were not detected in any of these samples; the majority of the congeners were detected in at least one sample. The reporting limits for Aroclors analyzed were lower than the BCL; thus concentrations in excess of the BCL, if present, would

[20] Most of the 74 samples (60 samples) were analyzed for both Aroclors and PCBs. However, a subset was analyzed for Aroclors only (3 samples), and a subset was analyzed for PCBs only (11 samples). For this reason, the individual counts on Table 4 range from 63 to 71 samples (Table 4 does not include samples within remediated areas).

have been reported. $LBCL_{DAF1}$ values have not been established for Aroclors or individual congeners. BCL values have not been established for individual congeners. PCB congeners are included in the calculation of the TCDD TEQ, and are evaluated in this manner, not on an individual congener basis.

Polynuclear Aromatic Hydrocarbons

PAHs were analyzed for in 107 Site soil samples (52 surface, 55 subsurface; Table B-7); none were detected. The standard PAH reporting limits were lower than the BCL and the $LBCL_{DAF1}$; thus concentrations in excess of these comparison levels, if present, would have been reported.

Aldehydes

Aldehydes were analyzed for in 104 Site soil samples (49 surface and 55 subsurface samples; Table B-2). Acetaldehyde and formaldehyde were the only detections (in 38 percent and 65 percent of the samples, respectively). None of the detections exceeded the BCL. The reporting limits were lower than the BCL; thus concentrations in excess of the BCL, if present, would have been reported. $LBCL_{DAF1}$ values have not been established for these compounds.

Radionuclides

Radionuclides were detected in all 109 of the Site soil samples analyzed (54 surface and 55 subsurface soil samples; Table B-9). Exceedances of comparison levels for radionuclides are only shown in Table 4 for the eight radionuclides currently included in the project analyte list (radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238). Of those detections greater than comparison levels, most are lower than the maximum background activity, as shown in Table 4. Detections higher than comparison levels and background are summarized below for each radionuclide:

- All of the reported Radium-226 detections were higher than the BCL and $LBCL_{DAF1}$ (0.0071 picoCuries per gram [pCi/g] and 0.016 pCi/g, respectively). However, only two of those detections were higher than the 2.75 pCi/g maximum background activity: a surface soil sample collected from MC1-AW36 (3.11 pCi/g) and a sample collected from 13 feet bgs at MC1-AX39 (2.81 pCi/g).
- All of the reported Radium-228 detections were higher than the BCL and $LBCL_{DAF1}$ (0.013 pCi/g and 0.016 pCi/g, respectively). However, only two of the detections were higher

than the 2.86 pCi/g maximum background activity: a sample collected from 8 feet bgs at MC1-J07 (3.12 pCi/g) and a surface soil sample collected at MC3-J46 (3.02 pCi/g).

- 48 of the Uranium-235/236 detections were higher than the 0.11 pCi/g BCL. However, only three of the detections were higher than the 0.241 pCi/g maximum background activity: a surface soil sample collected at MC1-AY38 (0.281 pCi/g); a sample collected at 3 feet bgs at MC1-AZ36 (0.247 pCi/g, qualified as a non-detect); and a sample collected from 14 feet bgs at MC1-J19 (1 pCi/g, qualified as a non-detect). An $LBCL_{DAF1}$ has not been established for this constituent.

As presented in NDEP guidance (NDEP 2009a), as part of the process used to evaluate radionuclide data for the BMI Common Areas, BRC assessed whether radionuclides are in secular equilibrium. The data indicate that secular equilibrium has been broadly attained at the Site. Specifically, the mean radioactivities for the Thorium-232 decay chain (*i.e.*, thorium-232, radium-228, and thorium-228) are comparable (1.4 pCi/g, 1.6 pCi/g, and 1.7 pCi/g, respectively). Similarly, the mean values for the uranium-238 decay chain (uranium-238, uranium-233/234, thorium-230, and radium-226) are also comparable, ranging from 1 pCi/g to 1.2 pCi/g. All of the mean values are lower than their respective maximum background activity levels. A quantitative evaluation of secular equilibrium is presented in Section 6.1.

Summary of Soil Exceedances

As summarized above and in the associated data tables (Table 4 and Appendix B), limited BCL and $LBCL_{DAF1}$ exceedances are currently observed in Site soils. The following constituents were reported at concentrations higher than the BCL and the maximum background concentration (where applicable):

- Manganese (1 sample)
- Thallium (1 sample)
- Vanadium (1 sample)
- Radionuclides (7 samples)

The following constituents were reported at concentrations higher than the $LBCL_{DAF1}$ and the maximum background concentration (where applicable):

- Antimony (1 sample)
- Barium (7 samples)
- Total chromium (11 samples)
- Molybdenum (1 sample)
- Nickel (16 samples)
- Thallium (3 samples)

- Hexavalent chromium (4 samples)
- Copper (2 samples)
- Magnesium (1 sample)
- Manganese (1 sample)
- Vanadium (1 sample)
- beta-BHC (7 samples)
- Dichloromethane (15 samples)
- Radionuclides (7 samples)

The limited number of BCL and $LBCL_{DAF1}$ exceedances indicates that there is a relatively low likelihood of adverse impacts to human health and the environment due to residual chemical concentrations in Site soils. Consistent with the methodology in the NDEP-approved *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), an HHRA was conducted to further evaluate this possibility, as discussed in subsequent sections of this report. In addition, using the SESOIL and VLEACH unsaturated zone leaching models, BRC evaluated the potential impacts to groundwater quality due to residual chemical concentrations, as summarized in Section 9.

One observation from the data review was the presence of two areas where cobalt and vanadium results were generally greater than other results for these two metals throughout the remainder of the Site. The cobalt area was in pond PUC-2, while the vanadium area was in pond PUA-3. Therefore, these two areas were considered separately for subsequent evaluations in the HHRA, for these two metals. That is, three 'exposure areas' are considered:

1. Pond PUC-2, using cobalt data for just this pond area, and Site-wide data for all other analytes;
2. Pond PUA-3, using vanadium data for just this pond area, and Site-wide data for all other analytes; and
3. "Site-wide" exposures using all data except pond PUC-2 data for cobalt, and all data except pond PUA-3 data for vanadium, and Site-wide data for all other analytes.

3.6 SURFACE FLUX SAMPLING

Concurrent with the confirmation soil sampling, BRC implemented surface flux sampling across the Site. This sampling conformed to the most recent NDEP-approved version of SOP-16 (BRC, ERM and MWH 2009). The sampling procedure for the effort included the USEPA surface emission isolation flux chamber (flux chamber) and static chamber sampling to support an air pathway analysis for the Site.

Although radon samples were collected, they are not included in this HHRA. BRC recently submitted a technical memorandum to NDEP, in which the results of recent radon testing performed in groundwater and indoor air samples were presented. Based on the findings of this memorandum, NDEP concluded that HHRAs for Eastside property sub-areas do not need to evaluate the pathway of radon migration from groundwater to indoor air for sub-areas with a separation distance of at least 15 feet between any current or future building structure base and the high water table (letter dated November 9, 2010 from Greg Lovato, NDEP to Mark Paris, BRC). Based on this conclusion and given the depth to groundwater at the Site is at least 45 feet bgs, the intrusion of radon into indoor air is not evaluated in the HHRA for this Site. Furthermore, as discussed in Section 6.1, other radionuclides are consistent with background levels, which indicates that radon should also be consistent with background, naturally-occurring levels in soil.

The flux chamber sample collection rationale was based on the project goal of obtaining a representative dataset of air emissions per sub-area. Flux chamber samples were collected from the initial 20 biased sample locations and one random location, including three field duplicates, for a total of 24 samples (Figure 11). Because the biased samples were collected primarily from the pond areas, which are primarily in the southern portion of the Site, and because the shallowest groundwater at the Site is in the northern portion of the Site, an additional flux chamber sample was collected in the north part of the Site, at random sample location MC1-BA36 (see Figure 11). A higher density of sample collection for VOCs was not considered warranted given that sample collection was post-remediation and groundwater beneath the Site is greater than 45 feet bgs (see Figure 2).

Two of the samples (*i.e.*, those associated with MC1-J03 and -J06) were inadvertently destroyed by the laboratory before they could be analyzed, resulting in VOC flux data for 22 samples.[21] This density of sample collection is considered adequate for sub-area characterization given: the biased 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.

The analyte list for soil vapor flux samples is comprised of the list provided in the most recent NDEP-approved version of SOP-16 (BRC, ERM and MWH 2008). This analyte list is provided

[21] BRC determined that these two samples were not essential for the purposes of the risk assessment because of (1) the location of MC1-J03 on a berm on the edge of the former pond area; and (2) the proximity of MC1-J06 to location MC1-J13 which was also being sampled. Therefore, these two locations were not re-sampled.

in Table 5, and consists of the full EPA Method TO-15 full scan, plus SIM analyses for a subset of the analytes. The analytical results are summarized in Table B-12 (Appendix B), and the principal investigator report of findings, which includes descriptions of sampling procedures, is provided in Appendix D (included on the report CD in Appendix B).[22] A data summary for the flux chamber sample results is provided in Table 6.

As seen in Tables 6 and B-12, more than 40 organic constituents were detected in at least one flux sample. The most commonly detected constituents were acetone, carbon tetrachloride, chloroform, and n-heptane, which were detected in more than 95 percent of the samples. Nearly all of the detections were qualified with "J" flags, indicating the reported concentrations were estimated (*i.e.*, lower than the reporting limit). All of the detections were lower than 1 $\mu g/m^2$, min^{-1} with the exception of a single acetone detection of 1.6 $\mu g/m^2$, min^{-1} (location MC1-J19).

As discussed in Section 4, all data have been validated. The HHRA surface flux dataset for the Mohawk sub-area is included as Appendix D to the HHRA (found on the CD provided in Appendix B). Surface flux sample locations, including the two not analyzed, are shown on Figure 11.

[22] Note that this report was prepared prior to data validation, therefore, data qualifiers and detection frequencies may differ than those in the remainder of this report.

4.0 DATA EVALUATION

This Section describes the procedures used to evaluate the acceptability of data for use in the risk assessment. Overall quality of sample results is a function of proper sample management. Management of samples began at the time of collection and continued throughout the analysis process. SOPs were followed to ensure that samples were collected and managed properly and consistently and to optimize the likelihood that the resultant data are valid and representative.

The primary objective of the data review and usability evaluation was to identify appropriate data for use in the HHRA. The analytical data were reviewed for applicability and usability following procedures in the *Guidance for Data Usability in Risk Assessment (Part A)* (USEPA 1992a) and USEPA (1989) and NDEP's *Data Usability Guidance for the BMI Complex and Common Areas* (NDEP 2008b). A quality assurance/quality control (QA/QC) review of the analytical results was conducted during the sampling events. According to the USEPA Data Usability Guidance, there are six principal evaluation criteria by which data are judged for usability in risk assessment. The six criteria are:

- reports to risk assessor (availability of information associated with Site data)
- documentation;
- data sources;
- analytical methods and detection limits;
- data review; and
- data quality indicators (DQIs), including precision, accuracy, representativeness, comparability, and completeness.

A summary of these six criteria for determining data usability is provided below. In addition to the six principal evaluation criteria, NDEP's Data Usability Guidance includes a step for data usability analysis, which is discussed after these six USEPA evaluation criteria. Data usability evaluation tables are provided electronically in Appendix E (included on the report CD in Appendix B).

4.1 CRITERION I – REPORTS TO RISK ASSESSOR (AVAILABILITY OF INFORMATION ASSOCIATED WITH SITE DATA)

The usability analysis of the site characterization data requires the availability of sufficient data for review. The required information is available from documentation associated with the Site data and data collection efforts. Data have been validated per the NDEP-approved *Data Validation Summary Report, Mohawk Sub-Area Soil Investigation, May-July 2008 (Dataset 52)* (BRC and ERM 2008), the NDEP-approved *Data Validation Summary Report, Mohawk Sub-Area 1st Round Confirmation Soil Investigation – June 2008, October 2008, November 2008, and January 2009 (Dataset 52a)* (BRC and ERM 2009c), and the NDEP-approved *Data Validation Summary Report, Mohawk Sub-Area 2nd and 3rd Round Confirmation Soil Investigations – April and June 2009 (Dataset 52b)* (BRC and ERM 2009d). These reports are provided electronically in Appendix F (included on the report CD in Appendix B). The following lists the information sources and the availability of such information for the data usability process:

- A Site description provided in this report and the NDEP-approved SAPs identifies the location and features of the Site, the characteristics of the vicinity, and contaminant transport mechanisms.
- A site map with sample locations is provided on Figure 11.
- Sampling design and procedures were provided in the NDEP-approved SAPs.
- Analytical methods and sample quantitation limits (SQLs) are provided in the dataset file included on the report CD in Appendix B.
- A complete dataset is provided in the dataset file included on the report CD in Appendix B.
- A narrative of qualified data is provided with each analytical data package, the laboratory provided a narrative of QA/QC procedures and results. These narratives are included as part of the DVSRs (BRC and ERM 2008, 2009c,d).
- QC results are provided by the laboratory, including blanks, replicates, and spikes. The laboratory QC results are included as part of the DVSRs (BRC and ERM 2008, 2009c,d).
- Data flags used by the laboratory were defined adequately.
- Electronic files containing the raw data made available by the laboratory are included as part of the DVSRs (BRC and ERM 2008, 2009c,d).

4.2 CRITERION II – DOCUMENTATION REVIEW

The objective of the documentation review is to confirm that the analytical results provided are associated with a specific sample location and collection procedure, using available documentation. For the purposes of this data usability analysis, the chain-of-custody forms prepared in the field were reviewed and compared to the analytical data results provided by the laboratory to ensure completeness of the dataset as discussed in the DVSRs (BRC and ERM 2008, 2009c,d). Based on the documentation review, all samples analyzed by the laboratory were correlated to the correct geographic location at the Site and are shown on Figure 11. The samples were collected in accordance with the SAP and RAWPs (BRC 2008a,b, 2009a,b), the SOPs developed for the BMI Common Areas as provided in the FSSOP (BRC, ERM and MWH 2009). Field procedures included documentation of sample times, dates and locations, other sample specific information such as sample depth were also recorded. Information from field forms generated during sample collection activities was imported into the project database.

Measurement of asbestos was conducted consistent with NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009c). The analytical data were reported in a format that provides adequate information for evaluation, including appropriate quality control measures and acceptance criteria. Each laboratory report describes the analytical method used, provides results on a sample by sample basis along with sample specific SQLs, and provides the results of appropriate quality control samples such as laboratory control spike samples, sample surrogates and internal standards, and matrix spike samples. All laboratory reports, except for asbestos, provided the documentation required by USEPA's Contract Laboratory Program (USEPA 2003a, 2004b,c) which includes chain of custody records, calibration data, QC results for blanks, duplicates, and spike samples from the field and laboratory, and all supporting raw data generated during sample analysis. Reported sample analysis results were imported into the project database. The recommended method for providing asbestos data which are useful for risk assessment purposes was performed by EMSL Analytical Inc in Westmont, New Jersey. This laboratory is not currently certified in the State of Nevada, but has California and national accreditation for asbestos analysis.

4.3 CRITERION III – DATA SOURCES

The review of data sources is performed to determine whether the analytical techniques used in the site characterization process are appropriate for risk assessment purposes. The data collection activities were developed to characterize a broad spectrum of chemicals potentially present on the Site, including asbestos, aldehydes, general chemistry/ions, VOCs, SVOCs, metals, dioxins/furans, PAHs, organochlorine pesticides, radionuclides, and PCBs. As discussed above in the Section 2.3, historical data collected from the Site are not evaluated further in this data review, or the HHRA. Figure 11 demonstrates that samples were collected over the entire Site.

The State of Nevada is in the process of certifying the laboratories used to generate the analytical data. As such, standards of practice in these laboratories follow the quality program developed by the Nevada Revised Statutes (NRS) and are within the guidelines of the analytical methodologies established by the USEPA. Based on the review of the available information, the data sources for chemical and physical parameter measurements are adequate for use in a risk assessment.

4.4 CRITERION IV – ANALYTICAL METHODS AND DETECTION LIMITS

In addition to the appropriateness of the analytical techniques evaluated as part of Criterion III, it is necessary to evaluate whether the detection limits are low enough to allow adequate characterization of risks. At a minimum, this data usability criterion can be met through the determination that routine USEPA reference analytical methods were used in analyzing samples collected from the Site. The USEPA methods that were used in conducting the laboratory analysis of soil samples are identified in the dataset file included on the report CD in Appendix B. Each of the identified USEPA methods is considered the most appropriate method for the respective constituent class and each was approved by NDEP as part of the SAP and RAWPs (BRC 2008a,b, 2009a,b). As recommended by NDEP's guidance on *Detection Limits and Data Reporting* (NDEP 2008c) the laboratory reported SQL was used in evaluating detection limits.

Laboratory SQLs were based on those outlined in the reference method, the SAPs (BRC 2008a,b), and the project QAPP (BRC and ERM 2009a). In accordance with respective laboratory SOPs, the analytical processes included performing instrument calibration, laboratory method blanks, and other verification standards used to ensure quality control during the analyses of collected samples.

The range of SQLs achieved in field samples was compared to NDEP BCLs (NDEP 2010a). Of the standard analytes, only two chemicals had SQLs that exceeded their respective BCLs, n-nitrosodi-n-propylamine in five of 107 samples, and dichloromethyl ether. Dichloromethyl ether was included in the SVOC analyses for only five samples. Several chemicals had SQLs above the LBCLs; however, given the discussion provided in Section 9, migration of chemicals at the

Site to groundwater is considered unlikely. Therefore, the SQLs are considered adequate for risk assessment purposes.

As discussed in the *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2009b), there are differences in SQLs among datasets which may affect data comparability for datasets comprised primarily of non-detected values. For these datasets, left-censored data can result in difficulties in differentiating whether datasets are actually different or merely an artifact of detection limits.

4.5 CRITERION V – DATA REVIEW

The data review portion of the data usability process focuses primarily on the quality of the analytical data received from the laboratory. Soil and surface flux data were subject to data validation. DVSRs were prepared as separate deliverables (BRC and ERM 2008, 2009c,d). The analytical data were validated according to the internal procedures using the principles of USEPA National Functional Guidelines (USEPA 1999, 2004d, 2005a, 2008) and were designed to ensure completeness and adequacy of the dataset. Additionally, DVSRs 52a and 52b were issued utilizing NDEP's two *Supplemental Guidance on Data Validation* documents (NDEP 2009b,c). Any analytical errors and/or limitations in the data have been addressed and an explanation for data qualification provided in the respective data tables. The results of ERM's data review for these issues are presented in the DVSRs and are summarized below.

Original Appendix E Data Usability Evaluation tables (as per Version 2.0 of the report) included all data points identified in the DVSRs that could potentially be of interest for data usability (e.g., all instances of blank contamination, out-of-laboratory limits, etc). These original tables (of data points potentially requiring analysis by the risk assessor as to usability) were reduced in a series of steps as follows:

- J+ flagged data and blank contamination data points were deemed usable and were removed from the table (i.e., required no further assessment as to usability) as these issues would lead to potential overestimation of risk;
- Data points noting "sample location was removed" were removed as these data points do not represent current conditions (data were not used in the HHRA);
- Data points with U or UJ flags, listed in the original table due to calibration violation, low recovery, etc, were deemed usable and removed from the table (i.e., required no further

evaluation) if the values were less than the BCL (in almost all cases, values were considerably less than the BCL);

- Detected data listed in the original table due to calibration violation, low recovery, etc, were deemed usable and removed from the table (i.e., required no further evaluation) if the values were less than the BCL(in almost all cases, values were considerably less than the BCL) ;

- Remaining data points were retained in the current Appendix E tables and include a point-by-point description of the usability decision.

4.6 CRITERION VI – DATA QUALITY INDICATORS

DQIs are used to verify that sampling and analytical systems used in support of project activities are in control and the quality of the data generated for this project is appropriate for making decisions affecting future activities. The DQIs address the field and analytical data quality aspects as they affect uncertainties in the data collected for site characterization and risk assessment. The DQIs include precision, accuracy, representativeness, comparability, and completeness (PARCC). The project QAPP provides the definitions and specific criteria for assessing DQIs using field and laboratory QC samples and is the basis for determining the overall quality of the dataset. Data validation activities included the evaluation of PARCC parameters, and all data not meeting the established PARCC criteria were qualified during the validation process using the guidelines presented in the National Functional Guidelines for Laboratory Data Review, Organics and Inorganics and Dioxin/Furans (USEPA 1999, 2004d, 2005a, 2008).

Precision is a measure of the degree of agreement between replicate measurements of the same source or sample. Precision is expressed by relative percent difference (RPD) between replicate measurements. Replicate measurements can be made on the same sample or on two samples from the same source. Precision is generally assessed using a subset of the measurements made. The precision of the data was evaluated using several laboratory QA/QC procedures. Based on ERM's review of the results of these procedures, the general level of precision for the Mohawk Sub-Area data and the background data (BRC and ERM 2009b) does not appear to limit the usability of a particular analyte, sample, method, or dataset as a whole.

Accuracy measures the level of bias that an analytical method or measurement exhibits. To measure accuracy, a standard or reference material containing a known concentration is analyzed or measured and the result is compared to the known value. Several QC parameters are used to evaluate the accuracy of reported analytical results:

- Holding times and sample temperatures;
- Laboratory control sample (LCS) percent recovery;
- Matrix spike/matrix spike duplicate (MS/MSD) percent recovery;
- Spike sample recovery (inorganics);
- Surrogate spike recovery (organics);
- Tracer recovery (radionuclides); and
- Blank sample results.

Detailed discussions of and tables with specific exceedances, with respect to precision and accuracy, are provided in the NDEP-approved DVSRs (BRC and ERM 2008, 2009c,d) and data qualified as a result of this evaluation are presented with qualifiers in the data usability tables in Appendix E (included on the report CD in Appendix B). All samples were received at the laboratory in an acceptable condition within the temperature limits and with preservative where applicable with the exception of three samples (MC1-J243, MC1-J24, and Rinsate1) analyzed under DVSR 52a. These samples, for formaldehyde and acetaldehyde analysis, were received at the laboratory at 19°C exceeding the required temperatures range of 4°± 2° Celsius (C). These data were qualified as potentially biased low. After comparison with blank levels, all results were censored and qualified as non-detects with a final qualifier of UJ.

A review of metal results qualified due to blank contamination uncovered that perhaps a larger than normal number of findings in blanks. Laboratory Data Consultants (LDC) observed a higher number of incidents of blank contamination during the course of the Mohawk event (July 2008 and re-sampling events April 2009) and qualified the data according to SOP-40 (BRC, ERM and MWH 2009). Based on the data review, LDC noted that most of the blank contamination occurred mainly with metals analyses performed by an older Perkin Elmer instrument at TestAmerica's St. Louis, MO laboratory. TestAmerica purchased a newer Agilent instrument and began using this instrument in July/August 2009, for 50 percent of the projects, thus reducing the blank contamination incidents. LDC confirmed there were fewer blank contamination findings after TestAmerica switched over to the new instrument. BRC requested the QA department at TestAmerica to review blank contaminations for this instrument, but did not find any significant change in method blank findings above the PQL. TestAmerica does not have a database query to cover calibration blank findings, but a review of non-conformance memos did not give a definitive pattern. The QA department indicated that the new instrument is more sensitive and cleaner (because it is new). Since the MDLs are not instrument-specific and are set as the highest value among all of the instruments, this may be the reason fewer blank hits have been shown with the new instrument. It is not known whether this has led to an over or underestimation of risk; however, this issue primarily affects metals with detection limits well below their respective NDEP BCL for residential soil (for example, antimony [highest non-detect value is 2.8 mg/kg versus BCL of 31 mg/kg], boron [highest non-detect value is 52.1 mg/kg versus BCL of 15,600 mg/kg], cadmium [highest non-detect value is 0.26 mg/kg versus BCL of 39 mg/kg], molybdenum [highest non-detect value is 2.9 mg/kg versus BCL of 390 mg/kg], and tungsten [highest non-detect value is 2.7 mg/kg versus BCL of 590 mg/kg]). Therefore, this issue likely has negligible effect on the calculated risk estimates.

As mentioned in Section 4.5.2, 13 niobium results and five perchlorate results were rejected due to very low MS/MSD recoveries and one vinyl acetate result was rejected due to zero MS/MSD recoveries. Additionally, the isotopic uranium (uranium-233/234, uranium-235/236, and uranium-238) results for sample MC1-J09-0 were rejected by the laboratory due to an exceedance in the standard deviation of the results. The laboratory later re-analyzed the sample within holding time. Data review included evaluation of calibration violations, tracer recoveries, blank contamination, spike and surrogate recoveries as well as replicate precision. These results were censored at the sample value so that comparison with background values was appropriate.

Representativeness is the degree to which data accurately and precisely represent a characteristic of the population at a sampling point or an environmental condition (USEPA 2002a). There is no standard method or formula for evaluating representativeness, which is a qualitative term. Representativeness is achieved through selection of sampling locations that are appropriate relative to the objective of the specific sampling task, and by collection of an adequate number of samples from the relevant types of locations. The sampling locations at the Site were based on both systematic sampling with random point placement within each grid cell, as well as focused samples collected from specific areas to further investigate potential areas. The samples were analyzed for a broad spectrum of chemical classes across the Site. Samples were delivered to the laboratory in coolers with ice to minimize the loss of analytes. At times the samples were analyzed beyond the holding time. Sample specific results are discussed in the DVSRs. A discussion of representativeness for the background dataset is provided in the *Supplemental Shallow Soil Summary Report, BMI Common Areas (Eastside)* (BRC and ERM 2009b).

Completeness is commonly expressed as a percentage of measurements that are valid and usable relative to the total number of measurements made. Analytical completeness is a measure of the number of overall accepted analytical results, including estimated values, compared to the total number of analytical results requested on samples submitted for analysis after review of the analytical data. Some of the data were eliminated due to data usability concerns. The percent completeness for the Site is 99.93 percent and includes the flux chamber data. The percent completeness for the soil only dataset is 99.92 percent. The percent completeness in the background dataset is 100 percent (BRC and ERM 2009b).

Comparability is a qualitative characteristic expressing the confidence with which one dataset can be compared with another. The desire for comparability is the basis for specifying the analytical methods; these methods are generally consistent with those used in previous investigations of the Site. The comparability goal is achieved through using standard techniques to collect and analyze representative samples and reporting analytical results in appropriate units. The ranges of detected sample results from the current investigation are generally comparable to recent results at the Eastside (for example, the Parcel 4B sub-area), as well as the site background datasets (see Section 5.1). There are differences in SQLs among datasets which may affect data comparability for datasets comprised primarily of non-detected values. An example of the differences in SQLs at the site and in background for several analytes with low detection frequency is shown in the following table.

Analyte	**Background Min SQL**	**Background Max SQL**	**Site Min SQL**	**Site Max SQL**[23]
Antimony	0.126	0.126	0.063	0.315
Boron	6.6	6.6	2.99	16.5
Lithium	3.657	14.628	3.285	13.14
Mercury	0.00668	0.00668	0.005	0.0115
Thallium	0.3	0.3	0.105	0.75

All results in units of mg/kg.

Boxplots for the background and site datasets are included in Appendix G. For these datasets, left-censored data can result in difficulties in differentiating whether datasets are actually different or merely an artifact of detection limits. Note that for constituents with SQLs that meet project limit requirements, comparisons between Site and background may be less important as

[23] The SQLs reported here may differ from the detection limits reported elsewhere (e.g. background comparisons). Detection limits may be raised due to blank contamination.

these left-censored data are likely to indicate conditions that pose an "acceptable" risk and further evaluation is not necessary.

4.7 DATA ANALYSIS

The dataset used for the HHRA is summarized in tabular format in Table 4 and in graphical format in the box plots and probability plots provided in Appendix G. As discussed in Section 4.5, the data validation process resulted in numerous sample results being qualified as estimated, and a few results being rejected. Sample results qualified as estimated are likely to be quantitatively biased to some degree; estimated analytical results are used in the HHRA. Data qualified as anomalous, as defined in the DVSRs, refers to data that were qualified ("U") due to blank contamination, and are used in the HHRA. These data usability decisions follow the guidelines provided in the *Guidance for Data Usability in Risk Assessment (Part A)* (USEPA 1992a).

For the HHRA, all soil data associated with post-remediation conditions that were not rejected during data validation, replaced by re-analysis results, or removed during a soil removal action were included. Data were often qualified as estimated due to recoveries being outside the acceptance criteria. In cases where the recoveries were higher than the acceptance criteria, the results have the potential of being similarly biased high and using these data in the risk assessment could result in risks being calculated that are higher than would be associated with actual Site conditions. Of more concern for the HHRA is underestimation of risk, which could be associated with the use of data that are biased low. Results associated with the following QA/QC issues could lead to results that are biased low, and were subjected to further scrutiny during the data usability evaluation:

- Results associated with holding time exceedances;
- Results associated with calibration violations indicating a low bias;
- Results associated with MS/MSD recoveries below acceptance criteria; and/or
- Results associated with surrogate percent recoveries below laboratory control limits.

Such data, which are listed above in Section 4.5, were evaluated during the data usability process to determine whether it was appropriate to use them in the risk assessment. With the exception of the rejected data points, the data usability determined that the estimated results listed in Section 4.5 were appropriate for use in the risk assessment, as discussed below.

4.7.1 Holding Time Exceedences

There is a potential for analyte loss if the holding time for a sample is exceeded. For the Site, holding times were exceeded in 55 samples for aldehyde analysis. All of the samples were qualified as estimated. Since over one-half of the aldehyde analyses had holding times in exceedance, there is a potential for a low bias to the aldehyde dataset although this does not affect the results of the HHRA (see Appendix E).

4.7.2 Calibration Violations Indicating a Low Bias

Calibration violations indicating a low bias occur when either the initial or continuing calibration compound is recovered with a lower than expected response. The tables provided in Appendix E (included on the report CD in Appendix B) indicate which data are qualified with a low bias due to calibration violations. The analytes qualified include:

- Methoxychlor
- 1,4-Dioxane
- 3-Nitroaniline
- Acenaphthene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(g,h,i)perylene
- Carbazole
- Chrysene
- Dibenzo(a,h)anthracene
- Dichloroacetaldehyde
- Total Organic Carbon
- 1,2,3-Trichloropropane (flux)
- DBCP (flux)
- 1,2-Dibromoethane (flux)
- 1,2-Dichloropropane (flux)
- CFC-12 (flux)
- Chlorodibromomethane (flux)
- Cymene (flux)
- Tert-Butylbenzene (flux)

For the PAHs (acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(g,h,i)perylene, chrysene, and dibenzo(a,h)anthracene) and certain surface flux VOCs (1,2,3-trichloropropane, 1,2-dichloropropane, and CFC-12) approximately one-third of the samples were qualified as estimated with a low bias. For flux VOCs, 1,2-dibromoethane and tert-butylbenzene, all of the TO-15 results were biased low. The effect on the remainder of the analytes is limited. The dataset for the named PAHs and flux VOCs may be biased low. The confidence in the flux VOCs results is bolstered by the fact that the qualified data are limited to either the TO-15 or TO-15 SIM analysis for a single analyte, not both. It should be noted that the results for these samples were well below risk-based concentrations (e.g., BCLs).

4.7.3 MS/MSD or LCS/LCSD Recoveries Below Acceptance Criteria

During the data usability review, results associated with MS/MSD and/or LCS/LCSD recoveries that were only slightly lower than the 75 percent lower acceptance limit (*i.e*., 50 to 75 percent recoveries for metals) were accepted as usable without further evaluation. Samples with lower percent recoveries (*i.e*., recoveries lower than 50 percent) were reviewed more closely to assess whether it was appropriate to use them in the risk assessment. With the exception of the rejected data discussed in Section 4.5, the data qualified on the basis of MS/MSD recoveries lower than 50 percent were found acceptable for use in the risk assessment because the LCS/LCSD recoveries for those samples were within the acceptable ranges. Additionally, the results for these samples were well below risk-based concentrations (e.g., BCLs). The few sample results that were rejected do not pose a significant data gap because there are an adequate number of other niobium, perchlorate, and vinyl acetate results associated with other Site samples, which were used in the risk assessment.

4.7.4 Surrogate Percent Recoveries Below Laboratory Control Limit

Eight samples were identified with low surrogate recoveries during the data usability review. Seven of the samples were from the aldehyde (EPA 8270 Modified) analysis and one from surface flux (TO-15 SIM) analysis. Surrogate recovery exceedances are often an indication of sample-specific matrix effects. The flux sample was analyzed using both TO-15 and TO-15 SIM methods. SIM is a technique employed to provide data with lower SQLs and typically reduces matrix interferences. Only the TO-15 SIM result displayed low surrogate recoveries. The laboratory did not re-run a dilution of this sample to minimize matrix effects because a dilution would bring the SQLs to levels similar to the TO-15 scan, lessening the usefulness of the SIM results. Since there were seven aldehyde samples with low surrogate recoveries, there was likely a matrix effect, however, it was not severe enough to result in a rejection of the data (i.e. recovery less than 10 percent). Additionally, the seven samples represent less than one-tenth of the aldehyde dataset and are not indicating a bias to a large portion of the dataset. Finally, the results for these samples were well below risk-based concentrations (e.g., BCLs).

5.0 SELECTION OF CHEMICALS OF POTENTIAL CONCERN

The broad suite of analytes sampled for was the initial list of potential COPCs at the Site. However, in order to ensure that a risk assessment focuses on those substances that contribute the greatest to the overall risk (USEPA 1989); two procedures were used to eliminate the COPCs for quantitative evaluation in the risk assessment:

- identification of chemicals with detected levels similar to background concentrations (where applicable), and
- identification of chemicals that are infrequently detected at the Site.

Following USEPA guidance (1989), compounds reliably associated with Site activities based on historical information were not eliminated from the risk assessment, even if the results of the procedures given in this Section indicate that such elimination is possible. The procedures for evaluating COPCs relative to background conditions and further selection of COPCs are presented below.

5.1 EVALUATION OF CONCENTRATIONS RELATIVE TO BACKGROUND CONDITIONS

Some chemicals at the Site, particularly metals and radionuclides, are known to be naturally-occurring constituents of soils and groundwater. A risk assessment should consider the contribution of background concentrations to overall Site risks, as differentiated from those concentrations associated with historic Site operations or regional anthropogenic conditions. Therefore, it is necessary to establish site-specific background conditions to support the risk assessment.

The 2008 supplemental shallow soil background study was conducted for the purpose of collecting and analyzing data for metals and radionuclides in background shallow soils that are comparable to Site soils in geologic units not covered by the *Background Shallow Soil Summary Report* (BRC/TIMET 2007) dataset collected in 2005. The supplemental background study was primarily undertaken because background comparisons for arsenic have failed at both the Mohawk and Parcel 4B sub-areas. However, there is no history of arsenic contamination at these sites; therefore, some consideration has been given to the possibility that the eastern part of the Site exhibits different background levels of arsenic and, potentially, other metals. The supplemental shallow soil background sampling event specifically targeted the lithologic units defined as "Pediment and fan deposits of the River Mountains" (Qr_1 and Qr_2, respectively) depicted as being located in the eastern-most corner of the BMI Common Areas[24] in the Nevada Bureau of Mines and Geology (NBMG) *Las Vegas SE Folio Geologic Map (1977) and the Geologic Map of the Henderson Quadrangle, Nevada* (NBMG 1980) (see Figure 12, Qr_1 and Qr_2 labels). This part of the Site is close to the northern part of the River Mountains range.

As indicated in the *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2009b; approved by NDEP on September 17, 2009), "Based on sampling location characteristics, information obtained from published documentation, site inspection, and sample collection, it is reasonable to conclude that the background samples collected as part of this investigation reflect shallow background soil conditions that may be used to support assessments of soils at the Mohawk sub-area and Parcel 4B."

The background sampling locations were selected because they exhibited the following characteristics:

- They are off-Site locations, in relatively close proximity to the Site (across Lake Mead Parkway, adjacent to the Site); however, they are upgradient and sufficiently distant from the Site such that impacts from Site operations are not likely;
- They are upwind of the Site (wind direction plots indicate the predominant wind direction is from the south and southwest) and are thus less likely to have been affected by aerial deposition of wind-borne dusts or vapors from Site operations; and
- They are upslope of the Site and are thus unlikely to have been affected by overland surface-water transport of potentially contaminated site soils.

Therefore, the 2008 supplemental shallow soil background dataset is considered representative of site background conditions and is used in the HHRA for this Site.

Background comparisons were performed using the Quantile test, Slippage test, the *t*-test, and the Wilcoxon Rank Sum test with Gehan modification. The computer statistical software program, Guided Interactive Statistical Decision Tools (GiSdT®; Neptune and Company 2009), was used to perform all background comparison statistics. A weight of evidence approach is utilized to interpret the results of these analyses. If the detection frequency in both Site and background datasets are greater than 40 percent then the following rationale is used for

[24] These units fall within the Mohawk sub-area and the eastern portion of Parcel 4B.

evaluation: where one or two results fail, the remaining testing and statistical information (boxplots, summary statistics) are reviewed to support decision making whether the chemical should be considered consistent with background (as described by the rationale in the table below); and where three or more statistical tests fail, the constituent is considered inconsistent with background. If the detection frequency is less than 40 percent in either the background or Site datasets, then the constituent is evaluated based on boxplots and summary statistics.

For samples with primary and field duplicate results, the Site sample and field duplicate are treated as independent samples and both are included in all subsequent data analyses, regardless of whether one or both are non-detect. This is considered appropriate because field duplicate samples represent a discrete and unique measurement of soil chemical conditions proximal to the primary sample (unlike split samples). The field duplicates were compared to the primary sample during the course of data validation. Of the 13 duplicate pairs, all of them required some qualification to a subset of the analytes. The variances were not out of the line with the variance in results across the Site. Therefore, as distinct soil chemical measurements, they are treated as unique samples in the analyses. As noted in Section 3.3, consistent with NDEP guidance (NDEP 2008a), for samples that underwent re-analysis, the original sample result and re-analysis result(s) were averaged, and the average value used.

The 2008 supplemental background dataset as a whole was compared to HHRA dataset as a whole. The results of the background comparison evaluation are presented in Table 7, and summarized below.

Chemical	Greater than Background?	Basis
Aluminum	NO	Multiple tests
Antimony	YES	Low detection frequency; a single detection at the Site, however many DLs were raised at Site due to blank contamination.
Arsenic	NO	Multiple tests
Barium	NO	Multiple tests
Beryllium	YES	A single test failed, however, multiple Site detections exceed the background max.
Boron	NO	Low detection frequency; Site Max, Mean < Background Max, Mean
Cadmium	NO	Multiple tests
Calcium	NO	Multiple tests
Chromium (Total)	YES	Statistically similar to background; however, three high Site results were re-analyzed and confirmed. Considered greater than background.
Chromium (VI)	YES	ND in background
Cobalt	YES	Statistically similar to background; however, three high Site results were re-analyzed and confirmed. Considered greater than background.
Copper	NO	Multiple tests
Iron	NO	Multiple tests
Lead	NO	Multiple tests

Chemical	Greater than Background?	Basis
Lithium	NO	Low detection frequency; Site mean, median < background mean, median. Max at Site and background are similar; detection limit less than residential BCL
Magnesium	NO	Multiple tests
Manganese	NO	Multiple tests
Mercury	YES	ND in background
Molybdenum	YES	Statistically similar to background, however, max detect is >6 times the background max.
Nickel	YES	A single test failed, however, multiple Site detections exceed the background max.
Niobium	YES	Multiple tests
Palladium	NO	Multiple tests
Phosphorus (as P)	NO	Multiple tests
Platinum	NO	ND in both Site and background datasets; no BCL established
Potassium	NO	Multiple tests
Selenium	NO	ND in both Site and background datasets; detection limit less than residential BCL
Silicon	NO	Multiple tests
Silver	YES	Statistically similar to background, however, max detect is >2 times the background max with several Site detections exceeded the max background.
Sodium	NO	Multiple tests
Strontium	NO	Multiple tests
Thallium	YES	Multiple tests
Tin	YES	Multiple tests
Titanium	NO	Multiple tests
Tungsten	YES	Multiple tests
Uranium	NO	Multiple tests
Vanadium	YES	Multiple tests
Zinc	YES	Statistically similar to background, however, max detect is >3 times the background max.
Zirconium	NO	Multiple tests
Radium-226	NO	Multiple tests
Radium-228	NO	Multiple tests
Thorium-228	NO	Multiple tests
Thorium-230	NO	Multiple tests
Thorium-232	NO	Multiple tests
Uranium-233/234	NO	Multiple tests
Uranium-235/236	NO	Low detection frequency; results are comparable to background and other radionuclides are in equilibrium.
Uranium-238	NO	Multiple tests

In addition, in order to evaluate Site-wide concentrations of cobalt and vanadium outside their respective exposure areas (pond PUC-2 for cobalt and pond PUA-3 for vanadium), background comparisons were conducted for cobalt using all data except pond PUC-2 data, and for vanadium using all data except pond PUA-3 data.[25] Results of these evaluations indicate that cobalt, outside of pond PUC-2, are similar to background levels, while vanadium, outside of pond PUA-3, exceed background levels. Therefore, cobalt is only included as a COPC for the pond PUC-2 exposure area. Vanadium is included as a COPC for a three exposure areas.

Cumulative probability plots and side-by-side boxplots[26] were also prepared and are included in Appendix G. These plots give a visual indication of the similarities between the Site and background datasets. The results of this comparison indicate that levels of beryllium, total chromium, hexavalent chromium, cobalt, mercury, nickel, niobium, thallium, tin, tungsten, and vanadium exceed background levels. Due to the large number of sample data in both the Site and background datasets, even small differences between the two are identified as statistically significant. The metals identified above as greater than background are evaluated further in the HHRA.

For radionuclides, secular equilibrium exists when the quantity of a radioactive isotope remains constant because its production rate (due to the decay of a parent isotope) is equal to its decay rate. In theory, if secular equilibrium exists, the parent isotope activity should be equivalent to the activity of all daughter radionuclides. Pure secular equilibrium is not expected in environmental samples because of the effect of natural chemical and physical processes. However, approximate secular equilibrium is expected under background conditions (NDEP 2009a). Both the thorium-232 and uranium-238 chains were determined to be in approximate secular equilibrium following equivalence testing outlined in NDEP's *Guidance for Evaluating Secular Equilibrium at the BMI Complex and Common Areas February* (NDEP 2009a). The results of the equivalence testing for secular equilibrium are as follows:

Chain	Equivalence Test		Secular Equilibrium?	Mean Proportion			
	Delta	**p-value**		**Ra-226**	**Th-230**	**U-233/234**	**U-238**
U-238	0.1	0	Yes	0.2426	0.2626	0.2717	0.2232
				Ra-228	**Th-228**	**Th-232**	
Th-232	0.1	0	Yes	0.341	0.3629	0.2961	

[25] Background comparisons were not conducted for cobalt within pond PUC-2 or for vanadium within pond PUA-3. These metals were assumed to exceed background levels without statistical testing. Although it could be argued that background comparisons should be performed for all metals for the three exposure areas separately; data for the other metals look the same across the Site, in which case they are all equally representative of any part of the Site (see Section 6.1.1). It is only cobalt and vanadium for which this is not the case.

[26] Background boxplots were segregated by depth (and all data), while the Site boxplots were segregated by their classification in the initial SAP; that is, fill, fill/surface, surface, and subsurface (and all data). This is different than how the data were segregated in the development of exposure point concentrations as presented in Section 6.1.

Therefore, since no radionuclides failed any background tests and are in secular equilibrium, all radionuclides are considered to be similar to background. In addition, uranium as a metal showed no statistical difference between site and background data. Radionuclides are therefore not evaluated further in the HHRA.

5.2 FURTHER SELECTION OF COPCS

The procedure for evaluating chemicals relative to background conditions was presented above. Further COPC selection was performed on the remaining chemicals by:

- Considering chemicals positively identified in at least one sample for inclusion as potential COPCs, including: (1) chemicals with no qualifiers attached (excluding non-detect results with unusually high detection limits, if warranted), and (2) chemicals with qualifiers attached that indicate known identities but estimated concentrations (*e.g.*, J-qualified data); and

- Further evaluation of chemicals included those detected at levels significantly elevated above levels of the same chemicals detected in associated blank samples (as described in SOP-40 (BRC, ERM and MWH, 2008).

Another criterion that may warrant chemical reduction is the frequency of detection. In general, chemicals exhibiting a low frequency of detection do not contribute significantly to the risk estimates. USEPA (1989) suggests that chemicals with a frequency of detection less than or equal to five percent, with the exception of metals, known human carcinogens, and persistent, bioaccumulative, and toxic (PBT) chemicals as defined by the USEPA PBT program, may be considered for elimination. Prior to eliminating a chemical based on the frequency of detection criteria, (1) any elevated detection limits are addressed, and (2) data distributions within the Site are considered. Results of the selection of COPCs, including the rationale for excluding chemicals as COPCs are presented in Tables 8A (PUC-2), 8B, (PUA-3) and 8C (Site-wide). The chemicals eliminated due to a low frequency of detection are as follows:

- Endrin aldehyde
- Bis(2-ethylhexyl)phthalate
- 1,3,5-Trimethylbenzene
- Acetonitrile
- Ethylbenzene
- Methyl ethyl ketone
- Cyanide
- Benzyl butyl phthalate
- 1,1,1,2-Tetrachloroethane
- 1-Nonanal
- Ethanol
- m,p-Xylene
- Toluene

The maximum detections of these chemicals were compared to the residential BCL if available to determine if there was a potential hotspot. None of the maximum detects were greater than the BCL.

Consistent with the ATSDR *Update to the ATSDR Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil* (2008a), if the TCDD TEQ concentrations do not exceed the ATSDR screening value of 50 ppt (and NDEP residential BCL) of 50 ppt for any sample within the Site, dioxins/furans are not retained as COPCs. Therefore, because this criterion is met for the Site, dioxins/furans are not considered COPCs, and are not evaluated further in the HHRA.

The resulting COPCs for soil are:

Chemical	COPC		
	PUC-2	**PUA-3**	**Site-Wide**
Inorganics			
Ammonia	Yes	Yes	Yes
Antimony	Yes	Yes	Yes
Beryllium	Yes	Yes	Yes
Chromium (Total)	Yes	Yes	Yes
Chromium (VI)	Yes	Yes	Yes
Cobalt	Yes	No	No
Fluoride	Yes	Yes	Yes
Mercury	Yes	Yes	Yes
Molybdenum	Yes	Yes	Yes
Nickel	Yes	Yes	Yes
Nitrate (as N)	Yes	Yes	Yes
Perchlorate	Yes	Yes	Yes
Silver	Yes	Yes	Yes
Thallium	Yes	Yes	Yes
Tin	Yes	Yes	Yes
Tungsten	Yes	Yes	Yes
Vanadium	Yes	Yes	Yes
Zinc	Yes	Yes	Yes
Pesticides			
2,4-DDE	Yes	Yes	Yes
4,4-DDE	Yes	Yes	Yes

Chemical	**COPC**		
	PUC-2	**PUA-3**	**Site-Wide**
Inorganics			
4,4-DDT	Yes	Yes	Yes
Beta-BHC	Yes	Yes	Yes
Volatile Organic Compounds			
Acetaldehyde	Yes	Yes	Yes
Formaldehyde	Yes	Yes	Yes
1,2,4-Trimethylbenzene	Yes	Yes	Yes
Acetone	Yes	Yes	Yes
Benzene	Yes	Yes	Yes
Dichloromethane	Yes	Yes	Yes

The above procedures apply to soil results. Indoor air exposures are evaluated on a sample by sample basis, per NDEP requirements, using the surface flux data measurements. Because of this, selection of COPCs from the surface flux data is not conducted. Instead, every chemical detected in an individual surface flux location is included in the evaluation for that location. Therefore, the minimum and maximum surface flux risk estimates are summed with the soil risk estimates to provide a range of cumulative risks.

6.0 HUMAN HEALTH RISK ASSESSMENT

This Section presents the HHRA of all COPCs identified in Section 5 for all receptors of concern via all complete pathways. The methods used in the risk assessment follow standard USEPA guidance. Specifically, the methods used in the risk assessment followed basic procedures outlined in the USEPA's *Risk Assessment Guidance for Superfund: Volume I—Human Health Evaluation Manual* (USEPA 1989). Other guidance documents consulted include:

- *Risk Assessment Guidance for Superfund: Volume I—Human Health Evaluation Manual. Supplemental Guidance: Standard Default Exposure Factors*. USEPA. 1991b.
- *Guidelines for Exposure Assessment*. USEPA. 1992b.
- *Soil Screening Guidance: Technical Background Document*. USEPA 1996.
- *Exposure Factors Handbook, Volumes I-III*. USEPA 1997.
- *Soil Screening Guidance for Radionuclides*. USEPA. 2000b.
- *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*. USEPA 2002b.
- *Technical Support Document for a Protocol to Assess Asbestos-Related Risk. Final Draft.* USEPA. 2003b.
- *Child-Specific Exposure Factors Handbook*. USEPA 2006.
- *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)*. USEPA 2004e.
- *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)*. USEPA 2009.

Various NDEP guidance documents are also relied on for the HHRA. These include:

- *Supplemental Guidance for Assessing Data Usability for Environmental Investigations at the BMI Complex and Common Areas in Henderson, Nevada*. NDEP 2008b.
- *Guidance for Evaluating Secular Equilibrium at the BMI Complex and Common Areas.* NDEP 2009a.

- *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils for the Basic Management Incorporated (BMI) Complex and Common Areas.* NDEP 2009d, 2010b.
- *Supplemental Guidance on Data Validation.* NDEP 2009b,c.
- *Guidance for Evaluating Radionuclide Data for the BMI Plant Sites and Common Areas Projects.* NDEP 2009e.

The risk assessment is a deterministic risk assessment; meaning that, single values based on conservative assumptions are used for all modeling, exposure parameters, and toxicity criteria. These conservative estimates compound each other so that the calculated risks likely exceed the true risks at the Site.

The method used in the risk assessment consists of several steps. The first step is the calculation of exposure point concentrations representative of the particular area, for each media of concern. This step includes fate and transport modeling to predict concentrations that may be present when direct measurements are not available. The second step is the exposure assessment for the various receptors present in the particular areas. The next step is to define the toxicity values for each COPC. The final step is risk characterization where theoretical upper-bound cancer risks and non-cancer HIs are calculated.

6.1 DETERMINATION OF EXPOSURE POINT CONCENTRATIONS

A representative exposure concentration is a COPC-specific and media-specific concentration value. In risk assessment, these exposure concentrations are values incorporated into the exposure assessment equations from which potential baseline human exposures are calculated. As described below, the methods, rationale, and assumptions employed in deriving these concentration values follow USEPA guidance and reflect site-specific conditions.

Chemical, physical, and biological processes may affect the fate and transport of chemicals in water, soil, and air. Chemical processes include solubilization, hydrolysis, oxidation-reduction, and photolysis. Physical processes include advection and hydrodynamic dispersion, volatilization, dispersion, and sorption/desorption to soil, sediment, and other solid surfaces. Biological processes include biodegradation, bioaccumulation, and bioconcentration. All of these processes are dependent upon the physical and chemical properties of the chemicals, the physical and chemical properties of the soil and water, and other environmental factors such as temperature, humidity, and the conditions of water recharge and movement. The net effect of these environmental factors is a time-dependent reduction of chemical concentrations in water, soil, and air. The determination of exposure point concentrations for media other than soil take into account chemical-specific physical parameters and inter-media transfers as discussed below. All modeling input parameters, calculations and results are presented in Appendix H (included on the report CD in Appendix B).

6.1.1 Soil

Due to the uncertainty associated with determining the true average concentration at a site, where direct measurements of the site average are unavailable, the USEPA recommends using the lower of the maximum detected concentration or the 95 percent UCL as the concentration of a chemical to which an individual could be exposed over time (USEPA 1992b). For the 95 percent UCL concentration approach, the 95 percent UCL was computed in order to represent the area-wide exposure point concentrations. The 95 percent UCL is a statistic that quantifies the uncertainty associated with the sample mean. If randomly drawn subsets of site data are collected and the UCL is computed for each subset, the UCL equals or exceeds the true mean roughly 95 percent of the time. The purpose for using the 95 percent UCL is to derive a conservative, upper-bound estimate of the mean concentration, which takes into account the different concentrations a person may be exposed to at the Site. That is, an individual will be exposed to a range of concentrations that exist at an exposure area, from non-detect to the maximum concentration, over an entire exposure period.

The 95 percent UCL statistical calculations were performed using the computer statistical software program GiSdT® (Neptune and Company 2009). See Section 5.1 for how sample locations with field duplicates were treated prior to the 95 percent UCL statistical calculations. For these calculations, chemical non-detect results are assigned a value of one-half the SQL. The formulas for calculating the 95 percent UCL COPC concentration (as the representative exposure concentration) are presented in USEPA (1992c, 2002c) and GiSdT® (Neptune and Company 2009). Three UCL methods are employed in the GiSdT® software. They include the Student's t UCL, the bootstrap percentile UCL and the bootstrap BCa UCL. The maximum UCL of these three methods was used as the exposure point concentration, unless the maximum UCL of the three methods was greater than the maximum detected concentration. In these cases, the maximum detected concentration was selected as the exposure point concentration.

The representativeness of the 95 percent UCLs for each of the three exposure areas, is further supported by the intensity plot figures included in Appendix I. Figures for each of the COPCs are included in Appendix I (in addition, figures have been developed for arsenic and TCDD TEQ; although not COPCs for the Site, these are primary chemicals of interest for the project). Based on the results of the background comparison tests, a review of the probability plots, boxplots, and intensity plot figures, data across the Site are assumed to be uncorrelated, that is, there is no discernable spatial correlation.[27] Although there may be spatial correlation of data across the Site, it has not been evaluated directly. Instead the assumption is made for statistical testing purposes that the data are not spatially correlated. This results in lower p-values and hence a greater number of statistical differences than would be the case if spatial correlation is accounted for. Because ignoring correlation causes conservatism in this sense, the need to evaluate spatial correlation is not warranted. Therefore consistent with the project *Statistical Methodology Report* (NewFields 2006), each measurement is assumed to be equally representative for that chemical at any point in the Site. Following an assessment of spatial distributions of the COPCs, it was subsequently warranted to divide the Site into three exposure areas: (1) PUC-2 (where cobalt required an exposure area specific UCL and Site-wide UCLs were supported for all other COPCs, (2) PUA-3 where vanadium required an exposure area specific UCL and Site-wide UCLs were supported for all other COPCs, and (3) a "Site-wide" exposure area where Site-wide UCLs were used for all COPCs.

Representative exposure concentrations for soil are based on the potential exposure depth for each of the receptors. For all receptors, five different exposure depths are considered, based on the sample depth rules schematic presented in Section 3: all data (surface, subsurface and fill), data classified as fill material only, data classified as fill material and/or surface soil, data classified as surface soil only, and all data excluding data classified as fill material.

These different soil exposure classifications are considered to represent all possible exposure potential for all receptors, based on the future grade and use of Site soils. 95 percent UCLs are calculated for each of these five different exposure depth scenarios. Although specific-receptors would not necessarily be exposed to all depth ranges (for example, residents and construction workers are considered to have potential exposures to 10 feet bgs, while commercial workers only to surface soils), in order to be conservative, the highest of the five values was used in the risk estimates for each COPC. The 95 percent UCL for each COPC is presented in Tables 9A (PUC-2), 9B (PUA-3), and 9C (Site-wide). For indirect exposures, this concentration was used in fate and transport modeling.

[27] Although the Statistical Methodology Report states that confirmation measurements of each chemical in a given soil layer will be used to compute variograms, as noted in the text above, this was not conducted for the Site, which is a deviation from the *BRC Closure Plan* methodology.

The exposure point concentrations for asbestos (USEPA 2003b, NDEP 2009d) were based on the pooled analytical sensitivity of the dataset. The asbestos data and analytical sensitivities are presented in Table 10. Therefore, asbestos exposure point concentrations are determined differently than those for the other COPCs. The pooled analytical sensitivity is calculated as follows:

$$\textit{Pooled Analytical Sensitivity} = 1/\left[\sum_i (1/\textit{analytical sensitivity for trial } i)\right]$$

Two estimates of the asbestos concentration were evaluated, best estimate and upper bound as defined in the draft methodology (USEPA 2003b). The best estimate concentration is similar to a central tendency estimate, while the upper bound concentration is comparable to a reasonable maximum exposure estimate. The pooled analytical sensitivity is multiplied by the number of chrysotile or amphibole structures to estimate concentration:

$$\text{Estimated Bulk Concentration } (10^6 \text{ s/gPM10}) = \text{Long fiber count} \times \text{Pooled analytical sensitivity}$$

For the best estimate, the number of fibers measured across all samples is incorporated into the calculation above. The upper bound of the asbestos concentration was also evaluated. It is calculated as the 95 percent UCL of the Poisson distribution mean, where the Poisson mean was estimated as the total number of structures detected across all samples. In EXCEL, the following equation may be employed to calculate this value:

95% UCL of Poisson Distribution Mean = CHIINV(1-upper confidence percentile, 2 × (Long fiber count + 1))/2

This value is then multiplied by the pooled analytical sensitivity to estimate the upper bound concentration. The intent of the risk assessment methodology was to predict the risk associated with airborne asbestos. In order to quantify the airborne asbestos concentration, the estimated dust levels or particulate emission factors (PEFs) were used:

$$\text{Estimated Airborne Concentration } (\text{s/cm}^3) = \text{Estimated bulk concentration } (10^6 \text{ s/gPM10}) \times \text{Estimated dust level } (\text{ug/cm}^3)$$

Further explanation of the asbestos risk calculations and estimates are provided in NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009c, 2010b).

6.1.2 Indoor Air

USEPA's 2002 Vapor Intrusion Guidance

BRC has reviewed USEPA's 2002 Vapor Intrusion Guidance (2002d), and believes that the approach used for the Site conforms to this guidance. The guidance recommends that a Tiered approach be followed to address vapor intrusion. BRC has followed a tiered approach for each of the Eastside sub-areas, including the Mohawk sub-area.

First, in each of the sub-area Sampling and Analysis Plans (SAPs), including that for Mohawk, BRC has identified each of the chemicals (VOCs and volatile SVOCs) to be evaluated further in each sub-area (that is, a Tier 1 assessment).

Second, BRC explicitly compared the existing groundwater data for wells that are located within (or adjacent to) that sub-area with the USEPA 2002 Tier 2 comparison values (provided in lookup tables in the guidance document). Thus, this Tier 2 assessment was done in the NDEP-approved SAPs for each of the sub-areas. The Tier 2 comparison table for the Mohawk sub-area is provided in Appendix J (Table J-1). As shown in this table no chemicals exceed their respective comparison levels, thus the Site passes a Tier 2 assessment.

Third, BRC has conducted a site-specific human health risk assessment for vapor intrusion using surface flux data on a sample-by-sample basis, per NDEP recommendations (that is, a Tier 3 assessment; see below). As noted in USEPA's 2002 guidance for a Tier 3 site-specific assessment: "If buildings are not available or not appropriate for sampling, for example in cases where future potential impacts need to be evaluated, … other more direct measures of potential impacts, such as emission flux chambers or soil gas surveys, may need to be conducted in areas underlain by subsurface contamination." Thus flux measurements are allowed under USEPA's guidance.

Fourth, BRC has also evaluated the various factors pertaining to vapor intrusion, including depth to groundwater (now and in the future), the nature of the soil column from ground surface to groundwater, and, water quality (*i.e.*, the constituents likely to be present in groundwater and which might pose any vapor intrusion concerns). BRC has performed a more detailed site-specific evaluation of vapor intrusion potential at a comparison study area within the Eastside property. Based on site-specific conditions, including depth to groundwater (which is comparable at the Site and at the comparison study area, considering various wells as well as present versus future conditions, etc.), VOC concentrations in groundwater (which are dramatically lower at the Site than in the comparison study area - for example, chloroform concentration in groundwater of <10 µg/L at the Site versus 250 to 900 µg/L at the comparison study area), and expected similar soil physical property, the comparison study area presents a greater potential for vapor intrusion than the Site. See the table below for various parameters.

Parameter	Comparison Study Area	Mohawk Sub-Area	Units
Particle Density	1.8	ND	g/cm^3
Percent Moisture	4.46	4.46	percent
Porosity	33.8	ND	percent
Bulk Density	2.7	ND	g/cm^3
Organic Carbon Content	1.1	0.77	percent
USCS Soil Types	SM/GM/GW/ML	SM/GM/GW/ML	--
Depth to Groundwater	49 to 60	49 to 68	ft bgs
Chloroform in Groundwater	250 to 900	< 10	µg/L

ND = No data were collected since these are not required for flux calculations. However, given the proximity and depositional profile, these parameters are expected to be similar.

BRC has performed a detailed evaluation of vapor intrusion risk assessments for chloroform at the comparison study area location, showing that risks were acceptable (residential indoor cancer risks ranged from 1×10^{-8} to 4×10^{-7}, and non-cancer HIs were well below 1.0). The comparison study area risk estimate calculations are provided electronically in Appendix J (included on the report CD in Appendix B). Input parameters and results for the indoor air calculations for the comparison study area location are also provided in Appendix J (Tables J-2 through J-6).

Finally, BRC is aware of USEPA's recent *Review of the Draft 2002 Subsurface Vapor Intrusion Guidance*. Issues and recommendations identified in this documents as well as the USEPA Office of Inspector General's *Evaluation Report—Lack of Final Guidance on Vapor Intrusion Impedes Efforts to Address Indoor Air Risks* (December 14, 2009), focus primarily on Tier 1 and Tier 2 assessments, and ultimately will not affect how indoor air exposures have been evaluated for the Site.

Site-Specific Tier 3 Assessment

Concentrations of volatile constituents (VOCs and certain SVOCs) in soil and groundwater that may infiltrate buildings to be constructed at the Site through cracks in the foundations are estimated using USEPA surface emission isolation flux chamber (flux chamber) measurements collected at the Site in accordance with USEPA guidance (USEPA 1986) and the Flux Chamber SOP-16 (BRC, ERM, and MWH 2008). The flux chamber is used to measure the emission rates from surfaces emitting gas species. Use of the flux chamber reduces the need for modeling surface flux rates, which potentially reduces the uncertainty in the air representative exposure concentrations and the risk characterization. Because the flux chamber measurements were conducted outdoors on open soil, an "infiltration factor" is applied to the outdoor flux data to generate data supporting the inhalation of indoor air exposure pathway. The infiltration factor is based on the factors found in the American Society for Testing and Materials (ASTM) *Standard Guide for Risk Based Corrective Action* (2000). The indoor air concentrations are determined from the flux measurements using the following mixing equation:

$$C_a = \frac{J \times \eta}{L \times ER}$$

where:

C_a	=	indoor air concentration (milligram per cubic meter [mg/m^3])
J	=	measured flux of chemical (mg/m^2-min)
η	=	foundation crack fraction (unitless)
L	=	enclosed space volume/infiltration area ratio (meter [m])
ER	=	enclosed space air exchange rate (1/min)

Default parameter values from ASTM (2000) for residential buildings were used. These default parameters are presented in the electronic indoor air calculation files in Appendix H (included on the report CD in Appendix B). As noted in Section 5.2, indoor air exposures are evaluated on a sample by sample basis, per NDEP requirements, using the surface flux data measurements. Every chemical detected in an individual surface flux location is included in the evaluation for that location.

Indoor air concentrations based on the surface flux data measurements are shown in the electronic indoor air calculation files in Appendix H (included on the report CD in Appendix B) and are summarized in Table 11. In all cases the maximum of the two flux chamber measurements (TO-15 full scan and TO-15 SIM) is used.

6.1.3 Outdoor Air

Long–term exposure to COPCs bound to dust particles is evaluated using the USEPA's PEF approach (USEPA 2002b). The PEF relates concentrations of a chemical in soil to the concentration of dust particles in the air. The Q/C (Site-Specific Dispersion Factor [USEPA 2002b]) values in this equation are for Las Vegas, Nevada (Appendix D of USEPA 2002b). The equation used is:

$$PEF = Q/C_{wind} \text{ x } \frac{3{,}600 \text{ sec/hr}}{0.036 \text{ x } (1 - V) \text{ x } (U_m / U_t)^3 \text{ x } F(x)}$$

where:

PEF	=	Particulate emission factor (m^3/kg)
Q/C_{wind}	=	Inverse of the ratio of the geometric mean air concentration to the emission flux at the center of a square source (g/m^2 -s per kg/m^3)
V	=	Fraction of vegetative cover (unitless)
U_m	=	Mean annual windspeed (m/s)
U_t	=	Equivalent threshold value of windspeed at 7m (m/s)
F(x)	=	Function dependent on U_m/U_t derived using USEPA (1985) (unitless)

and

$$Q/C_{wind} = A \times \exp \frac{(\ln A_{site} - B)^2}{C}$$

where

A_{site}	=	Source Area (acre)
A, B, C	=	Air Dispersion Constants for LV (unitless)

The dust model and parameters utilized to generate the PEF are presented in Table 12.

The USEPA guidance for dust generated by construction activities (USEPA 2002b) was used for assessing short-term construction worker exposures:

$$PEF = \frac{1}{\left(\left(\frac{1}{PEF_{sc}}\right) + \left(\frac{1}{PEF_{sc\_road}}\right)\right)}$$

where:

PEF_{sc}	=	Subchronic particulate emission factor for construction activities (m^3/kg)
PEF_{sc_road}	=	Subchronic particulate emission factor for unpaved road traffic (m^3/kg)

Input soil concentrations for the model are the exposure point concentrations as described above. The construction dust model and all relevant equations and parameters utilized to generate the construction worker PEF from this guidance are provided in Table 13. Site-specific surface soil moisture data were collected in January, May, June, July, and November. The average of the surface soil data is 3.6 percent. This is considered an adequate representation of an annual average, therefore, this value is used for the percent moisture in dry road surface parameter instead of the NDEP model default value.

In addition, for receptors with indoor exposures (*i.e.*, residents, indoor commercial workers), a dilution factor is applied to obtain an indoor air concentration of dust particles, based on USEPA (2000b).

The flux chamber measurements as described in Section 6.1.2 above are used for exposures to VOCs and volatile SVOCs in outdoor air if the chemical was present in the TO-15 analyte list. If the VOC or volatile SVOC was measured in soil but not on the TO-15 analyte list, then the exposure point concentration was estimated using USEPA's volatilization factor. Outdoor flux data are divided by the dispersion factor for volatiles (Q/C_{vol} for Las Vegas; from USEPA 2002b) for use in the outdoor air exposure pathway. The same dispersion factor is used for all scenarios. The dispersion factor for the construction worker is not adjusted to account for soil intrusion activities. Outdoor air concentrations based on soil data for all receptors are shown in Table 14. Outdoor air concentrations based on the surface flux data measurements are shown in the electronic indoor air calculation files in Appendix H (included on the report CD in Appendix B) and are summarized in Table 11.

6.1.4 Homegrown Produce

Consistent with the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised March 2010) and USEPA guidance, the consumption of homegrown produce is an applicable exposure pathway for residential receptors. Representative exposure concentrations in plants were obtained using the soil 95 percent UCL for each COPC, multiplied by plant uptake factors. As per the Closure Plan, plant uptake factors were obtained from USEPA (2005b) and Baes *et al*. (1984). Plant uptake factors for inorganics were obtained from empirical data, where available. Plant uptake factors for organics are calculated based on the following equations (from USEPA 2005b):

Aboveground plant uptake factor:

$$\log Br_{above} = 1.588 - 0.578 \log K_{ow}$$

Belowground plant uptake factor:

$$Br_{below} = \frac{RCF}{Kd_s} \times VG$$

where:

Br_{above}	=	aboveground plant uptake factor (mg/kg plant DW/mg/kg soil)
Br_{below}	=	belowground plant uptake factor (mg/kg plant DW/mg/kg soil)
K_{ow}	=	octanol/water partitioning coefficient (unitless)
RCF	=	root concentration factor (mg/g plant DW/mg/mL soil water)
Kd_s	=	Soil-water partition coefficient (mL water/g soil)
VG	=	empirical correction factor for belowground produce (unitless)(0.01 for COPCs with a log Kow greater than 4 and 1.0 for COPCs with a log Kow less than 4)

Plant uptake factors are presented in Table 15. See Section 7.2.3 regarding plant uptake of perchlorate.

6.2 EXPOSURE ASSESSMENT

In a risk assessment, the possible exposures of populations are examined to determine if the chemicals at a site could pose a threat to the health of identified receptors. The risks associated with exposure to chemicals depend not only on the concentration of the chemicals in the media, but also on the duration and frequency of exposure to those media. For example, the risks associated with exposure to chemicals for one hour a day are less than those associated with exposure to the same chemicals at the same concentrations for two hours a day. Potential health impacts from chemicals in a medium can occur via one or more exposure pathways. The exposure assessment step of a risk assessment combines information regarding impacted media at a site with assumptions about the people who could come into contact with these media. The result is an estimation of a person's potential rate of contact with impacted media from the Site. The intake rates are evaluated in the risk characterization step to estimate the risks they could pose.

In this section, assumptions regarding people's activities, such as the frequency with which a person could come into contact with impacted media, are discussed. Finally, the daily doses at the points of potential human contact were estimated using these assumptions, the models described in Section 6.1, and the chemical concentrations reported for soil and flux chamber samples collected from the Site.

6.2.1 Exposure Parameters

In this section, the assumptions regarding the extent of exposure are presented for each of the exposure pathways for each medium of concern at the Site. Tables 16 and 17 present each of the exposure parameters used in the risk assessment for each receptor and each pathway. Many of the assumptions regarding the extent of exposure were default factors developed by USEPA's Superfund program. Default values were modified to reflect site-specific conditions, where possible. The exposure parameters used in the risk assessment were those defined in Tables 9-2 through 9-5 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010).

6.2.2 Quantification of Exposure

In this section, the concentrations of COPCs at the points of potential human exposure are combined with assumptions about the behavior of the populations potentially at risk in order to estimate the dose of COPCs that may be taken in by the exposed individuals. Later, in the risk characterization step of the assessment, the doses are combined with toxicity parameters for COPCs to estimate whether the calculated intake levels pose a threat to human health.

The method used to estimate the average daily dose (ADD) for non-carcinogens COPCs via each of the complete exposure pathways is based on USEPA (1989, 1992b) guidance. For carcinogens, lifetime ADD (LADD) estimates are based on chronic lifetime exposure, extrapolated over the estimated average lifetime (assumed to be 70 years). This establishes consistency with cancer slope factors (CSFs), which are based on chronic lifetime exposures. For non-carcinogens, ADD estimates are averaged over the estimated exposure period. ADDs and LADDs were calculated for each exposure scenario using the following generic equation:

$$\text{ADD or LADD}\,(mg/kg\text{ - }day) = \frac{C \times IR \times EF \times ED \times CF \times (BIO \text{ or } AF)}{AT \times BW}$$

where:

C = COPC concentration (*e.g.*, mg/kg, mg/m^3)

IR = intake rate; the amount of the transport medium contacted per unit time (*e.g.*, mg/day, m^3/day)

EF = exposure frequency (days/year)
ED = exposure duration (years)
AF/BIO = absorption fraction (percent) / relative bioavailability (unitless)
AT = averaging time; same as the ED for non-carcinogens and 70 years (average lifetime) for carcinogens
BW = body weight (kilograms)

Risk estimates for inhalation exposures follow USEPA's *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)* (USEPA 2009). That is, the concentration of a chemical in air is used as the exposure metric (*e.g.*, mg/m^3), rather than inhalation intake of a chemical in air based on inhalation rate and body weight (*e.g.*, mg/kg-day). The generic equation for calculating inhalation exposures is:

$$EC = \frac{C_{air} \ x\ ET\ x\ ED\ x\ EF}{AT}$$

where:

EC = exposure concentration (in mg/m^3)
C_{air} = chemical concentration in air (in mg/m^3)
ET = exposure time (hours per day)
ED = exposure duration (years of exposure)
EF = exposure frequency (number of days per year)
AT = averaging time; same as the ED for non-carcinogens and 613,200 hours (*i.e.*, 70 years; average lifetime) for carcinogens

Pathway-specific equations for calculating ADDs and LADDs are provided in Table 9-6 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised March 2010).

The relative oral bioavailability (BIO) of all COPCs was assumed to be 100 percent. Chemical-specific dermal absorption values from USEPA guidance (USEPA 2004e [Part E RAGS]) were used in the risk assessment. USEPA does not recommend absorption factors for VOCs based on the rationale that VOCs are volatilized from the soil on skin and exposure is accounted for via inhalation routes. In addition, RAGS Part E (USEPA 2004e) states "For inorganics, the speciation of the compound is critical to the dermal absorption and there are too little data to extrapolate a reasonable default value." Therefore, dermal absorption factors are also not used for inorganics. NDEP and its consultants have concurred with this decision.

Exposure levels of potentially-carcinogenic and non-carcinogenic chemicals are calculated separately because different exposure assumptions apply (*i.e.*, ADD for non-carcinogens and LADD for carcinogens). Exposure levels are estimated for each relevant exposure pathway (*i.e.*, soil, air, and water), and for each exposure route (*i.e.*, oral, inhalation, and dermal). Daily doses for the same route of exposure are summed. The total dose of each chemical is the sum of doses across all applicable exposure routes. As noted previously, radionuclides are consistent with background concentrations and are not addressed in this HHRA.

6.2.3 Asbestos

Although final USEPA guidance is unavailable at this time, USEPA recommends that site-specific risk assessments be performed for asbestos (USEPA 2004f). Risks associated with asbestos in soil are evaluated using NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009d, 2010b) and the draft methodology proposed by USEPA (2003b). This methodology is an update of the method described in *Methodology for Conducting Risk Assessments at Asbestos Superfund Sites-Part 1: Protocol* and *Part 2: Technical Background Document* (Berman and Crump 1999a,b). Because the risk assessment methodology for asbestos is unlike that for other COPCs, asbestos risks are evaluated separately from other chemical risks.

The intent of the risk assessment methodology is to predict the amount of airborne asbestos, which causes an unacceptable risk to a human receptor. Asbestos concentrations are measured in soil, and are then used to predict airborne asbestos concentrations using a dust emissions model. Asbestos data are collected in the top two inches of soil. While asbestos might exist below the top two inches of soil due to soil turnover, the concentrations in the surface soil are likely to be greater than concentrations beneath the surface, and the exposure pathway is to near-surface soils. Therefore, the 'shallow' surface soils asbestos concentration estimate is used to represent the potential exposure to asbestos.

To interpret measurements of asbestos in soils, it is necessary to establish the relationship between the asbestos concentrations observed in soils and concentrations that will occur in air when such soil is disturbed by natural or anthropogenic forces. This is because asbestos is a hazard when inhaled (see, for example, Berman and Crump 2001; USEPA 2003b). In fact, the Modified Elutriator Method (Berman and Kolk 2000), which was the method employed to perform the analyses presented in this report, was designed specifically to facilitate prediction of airborne asbestos exposures based on bulk measurements (see, for example, Berman and Chatfield 1990).

Briefly, the Modified Elutriator Method incorporates a procedure for isolating and concentrating asbestos structures as part of the respirable dust fraction of a sample and analytical measurements are reported as the number of asbestos structures per mass of respirable dust in the sample. This turns out to be precisely the dimensions required to combine such measurements with published dust emission and dispersion models to convert them to asbestos emission and dispersion models. These models can be combined with measurements from the Modified Elutriator Method to predict airborne exposures and assess the attendant risks.

6.3 TOXICITY ASSESSMENT

This section describes the toxicity of the COPCs at the Site. Numerical toxicity values were developed for use in the calculation of the hazard quotients (for non-carcinogens) and risks (for carcinogens).

6.3.1 Toxicity Values

Toxicity values, when available, are published by the USEPA in the on-line Integrated Risk Information System [IRIS]; USEPA 2010). CSFs (in units of $[mg/kg\text{-}d]^{-1}$) are chemical-specific and experimentally derived potency values that are used to calculate the risk of cancer resulting from exposure to potentially carcinogenic chemicals. Inhalation unit risks (IURs) represent the upper-bound excess lifetime cancer risk from continuous exposure to a chemical at a concentration of 1 $\mu g/m^3$. A higher value implies a more potent carcinogenic potential. Reference dosages (RfDs) are experimentally derived “no-effect” levels used to quantify the extent of toxic effects other than cancer due to exposure to chemicals (in units of mg/kg-d). Similarly, a reference concentration (RfC) is the derived “no-effect” concentration for a lifetime of continuous inhalation exposure (in units of mg/m^3). With RfDs or RfCs, a lower value implies a more potent toxicant. These criteria are generally developed by USEPA risk assessment work groups and listed in the USEPA risk assessment guidance documents and databases. Available toxicity values for all Site COPCs used in the risk assessment were obtained using the following hierarchy for selecting toxicity criteria (based on USEPA 2003c):

1. IRIS
2. USEPA’s Provisional Peer Reviewed Toxicity Values (PPRTVs)
3. National Center for Environmental Assessment (NCEA, or other current USEPA sources)
4. Health Effects Assessment Summary Tables (HEAST)

5. USEPA Criteria Documents (*e.g.*, drinking water criteria documents, drinking water Health Advisory summaries, ambient water quality criteria documents, and air quality criteria documents)

6. ATSDR toxicological profiles

7. USEPA's Environmental Criteria and Assessment Office (ECAO)

8. Peer-reviewed scientific literature

In addition, toxicity criteria and toxicological surrogates recommended by NDEP are used in the risk assessment. Toxicity criteria are consistent with those used in the development of NDEP's BCLs (NDEP 2010a), unless newer values are available from USEPA. Toxicity criteria have not been developed by BRC for elements or compounds that do not have criteria published in the above sources.

Although USEPA has developed toxicity criteria for the oral and inhalation routes of exposure, it has not developed toxicity criteria for the dermal route of exposure. USEPA has proposed a method for extrapolating oral toxicity criteria to the dermal route in the recently released *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)* (USEPA 2004e). USEPA states that the adjustment of the oral toxicity factor for dermal exposures is necessary only when the oral-gastrointestinal absorption efficiency of the chemical of interest is less than 50 percent (due to the variability inherent in absorption studies). For COPCs to which dermal exposure might occur at the Site, the oral-gastrointestinal absorption efficiencies are greater than 50 percent, except for total chromium, hexavalent chromium, mercury, nickel, and vanadium. Therefore, the USEPA indicated adjustment of the oral toxicity criteria to generate dermal criteria was performed for these COPCs.

6.3.2 Non-Carcinogenic Health Effects

For non-carcinogenic health effects, USEPA assumes that a dose threshold exists, below which adverse effects are not expected to occur. A chronic RfD or RfC of a chemical is an estimate of a lifetime daily dose to humans that is likely to be without appreciable deleterious non-carcinogenic health effects. To derive an RfD or RfC, a series of professional judgments is made to assess the quality and relevance of the human or animal data and to identify the critical study and the most critical toxic effect. Data typically used in developing the RfD or RfC are the highest no-observable-adverse-effect-levels (NOAELs) for the critical studies and effects of the non-carcinogen. For each factor representing a specific area of uncertainty inherent in the extrapolation from the available data, an uncertainty factor is applied. Uncertainty factors generally consist of multiples of 10, although values less than 10 are sometimes used.

Four major types of uncertainty factors are typically applied to NOAELs in the derivation of RfDs or RfCs. Uncertainty factors of 10 are used to (1) account for the variability between humans, (2) extrapolate from animals to humans, (3) account for a NOAEL based on a subchronic study instead of a chronic study, and (4) extrapolate from a lowest-observed-adverse-effect-level (LOAEL) to a NOAEL, if necessary. In addition, a modifying factor can be used to account for adequacy of the database. Typically, the modifying factor is set equal to one.

To obtain the RfD or RfC, all uncertainty factors associated with the NOAEL are multiplied together, and the NOAEL is divided by the total uncertainty factor. Therefore, each uncertainty factor adds a degree of conservatism (usually one order of magnitude) to the RfD or RfC. An understanding of the uncertainties associated with RfDs or RfCs is important in evaluating the significance of the HIs calculated in the risk characterization portion of the risk assessment. When available sub-chronic RfDs or RfCs were used to evaluate construction worker exposures. The COPCs in this assessment with USEPA-established oral/dermal and inhalation RfDs or RfCs are presented in Tables 18 and 19, for surface flux and soil COPCs, respectively.

6.3.3 Carcinogenic Health Effects

USEPA develops CSFs and IURs from chronic animal studies or, where possible, epidemiological data. Because animal studies use much higher doses over shorter periods of time than the exposures generally expected for humans, the data from these studies are adjusted, typically using a linearized multi-stage (LMS) mathematical model. To ensure protectiveness, CSFs/IURs are typically derived from the upper 95th percentile confidence limit of the slope, and thus the actual risks are unlikely to be higher than those predicted using the CSF/IUR, and may be considerably lower. The COPCs in this assessment with USEPA-established oral/dermal and inhalation CSFs/IURs are presented in Tables 18 and 20, for surface flux and soil COPCs, respectively.

6.3.4 Asbestos

Asbestos toxicity criteria were obtained from Table 8-1 of Berman and Crump's (2001) document and Tables 8.2 and 8.3 in the USEPA (2003b) guidance. The toxicity criteria vary based on fiber type, endpoint (lung cancer, mesothelioma, or combined) and percent of fibers longer than 10µm and less than 0.4 µm in width. For this risk assessment the toxicity criteria were based on a combined endpoint of lung cancer and mesothelioma averaged over the smokers and non-smokers of the population, with the assumption that fifty percent of fibers are greater than 10 µm in length. The resulting unit risk factors (structures/cubic centimeter) are presented in Appendix H (included on the report CD in Appendix B). A complete discussion on issues associated with risk estimates for asbestos is presented in NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009c).

6.4 RISK CHARACTERIZATION

In the last step of a risk assessment, the estimated rate at which a receptor intakes a chemical is compared with information about the toxicity of that COPC to estimate the potential risks posed by exposure to the COPC. This step is known as risk characterization. The methods used for assessing cancer risks and non-cancer adverse health effects are discussed below.

6.4.1 Methods for Assessing Cancer Risks

In the risk characterization, carcinogenic risk is estimated separately as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to chemicals and asbestos. Carcinogenic risks for chemicals were evaluated by multiplying the estimated average exposure rate (*i.e.*, LADD calculated in the exposure assessment) by the chemical's CSF or IUR. The CSF converts estimated daily doses averaged over a lifetime to incremental risk of an individual developing cancer. Because cancer risks are averaged over a person's lifetime, longer-term exposure to a carcinogen results in higher risks than shorter-term exposure to the same carcinogen, if all other exposure assumptions are constant. Theoretical risks associated with low levels of exposure in humans are assumed to be directly related to an observed cancer incidence in animals associated with high levels of exposure while the IUR converts estimated exposure concentrations averaged over a lifetime to incremental risk of an individual developing cancer. According to USEPA (1989), this approach is appropriate for theoretical upper-bound incremental lifetime cancer risks (ILCRs) of less than 1×10^{-2}. The following equations were used to calculate COPC-specific risks and total risks:

$$Risk = EC \times IUR \quad or \quad LADD \times CSF$$

where:

LADD	=	lifetime average daily dose (mg/kg-d)
EC	=	exposure concentration (mg/m^3)
IUR	=	inhalation unit risk $(mg/m^3)^{-1}$

CSF = cancer slope factor $(mg/kg\text{-}d)^{-1}$

and

$$Total\ Carcinogenic\ Risk = \Sigma\, Individual\ Risk$$

It is assumed that cancer risks for different chemicals and from multiple exposure routes are additive, which may introduce a protective bias in the result of the cancer risk assessment. Carcinogenic risk estimates were compared to the USEPA acceptable risk range of 1 in 10,000 (10^{-4}) and 1 in 1 million (10^{-6}) and NDEP's acceptable level of 10^{-6}. If the estimated risk falls within or below this risk range, the chemical is considered unlikely to pose an unacceptable carcinogenic risk to individuals under the given exposure conditions. A risk level of 1×10^{-5} (1 E-5) represents a probability of one in 100,000 that an individual could develop cancer from exposure to the potential carcinogen under a defined set of exposure assumptions.

6.4.2 Methods for Assessing Non-Cancer Health Effects

Non-cancer adverse health effects are estimated by comparing the estimated average exposure rate (*i.e.*, ADDs estimated in the exposure assessment) with an exposure level at which no adverse health effects are expected to occur for a long period of exposure (*e.g.*, the RfDs or RfCs). ADDs (or ECs) and RfDs (or RfCs) are compared by dividing the ADD by the RfD (or EC by the RfC) to obtain the ADD:RfD (EC:RfC) ratio, as follows:

$$HQ = \frac{EC}{RfC}\ or\ \frac{ADD}{RfD}$$

where:

HQ = hazard quotient
ADD = average daily dose (mg/kg-d)
EC = exposure concentration (mg/m^3)
RfD = reference dose (mg/kg-d)
RfC = reference concentration (mg/m^3)

The ADD-to-RfD (EC-to-RfC) ratio is known as a hazard quotient (HQ). If a person's average exposure is less than the RfD or RfC (*i.e.*, if the HQ is less than 1), the chemical is considered unlikely to pose a significant non-carcinogenic health hazard to individuals under the given exposure conditions. Unlike carcinogenic risk estimates, a HQ is not expressed as a probability.

Therefore, while both cancer and non-cancer risk characterizations indicate a relative potential for adverse effects to occur from exposure to a chemical, a non-cancer adverse health effect estimate is not directly comparable with a cancer risk estimate.

If more than one pathway is evaluated, the HQs for each pathway are summed to determine whether exposure to a combination of pathways poses a health concern. This sum of the HQs is known as a HI.

$$\textit{Hazard Index} = \Sigma\,\textit{Hazard Quotients}$$

Any HI less than 1.0 indicates the exposure is unlikely to be associated with a potential health concern. If the HI is greater than 1.0, then the hazard quotients are summed by the specific target organs affected by a particular chemical or chemicals. This is also summed across pathways and chemicals. Target organs are identified primarily by the source of the toxicity criteria (*e.g.*, IRIS). Since a chemical may affect more than one organ, in addition to the source of the toxicity criteria Oak Ridge National Laboratory's (ORNL) Risk Assessment Information System's (RAIS) toxicity profiles were also searched for target organ information (ORNL 2010). In this HHRA, where available, three target organs are included. The target organs for the COPCs are shown in Table 21.

6.4.3 Methods for Assessing Asbestos Risks

For assessing asbestos risks, Table 8-2 (Based on Optimum Risk Coefficients) of USEPA (2003b) was used. Table 8-2 presents best estimate risks optimized based upon separation of fiber type, size and endpoint (mesothelioma/lung cancer), thereby reducing apparent variation between the studies utilized. The values in Table 8-2 are used because they are the authors "best" estimates of potency based upon all the available data (whereas the "conservative values" presented in Table 8-3 present only the most conservative, and best "behaved" data). As described in USEPA (2003b), because the asbestos risks to male and female smokers/non-smokers are different, population averaged risks are evaluated based on Eqn. 8-1 of USEPA (2003b):

$$URF = 0.5 \times ((0.786 \times (NSM + NSF)) + ((0.214 \times (SM + SF)) \times CF$$

where:

URF = Population Averaged Unit Risk Factor $[s/cm^3]^{-1}$;.*g.*, mg/kg, milligrams per cubic meter $[mg/m^3]$)

NSM = risk for male non-smokers
NSF = risk for male non-smokers
SM = risk for male smokers
SF = risk for female smokers
CF = factor to convert risk from risk per 100,000 to risk per 1,000,000

This equation considers male smokers, male non-smokes, female smokers, and female non-smokers. In addition, because both chrysotile and amphibole have been detected at the BMI Common Areas, both amphibole and chrysotile fibers are evaluated in the risk assessments, regardless as to whether either was detected within an exposure area (as calculated using the 95 percent UCL of the mean of the assumed underlying Poisson distribution).

The basic equation for assessing inhalation cancer risk for asbestos is analogous to that recommended by EPA for other inhalation carcinogens. As shown in Equation 11 of *Risk Assessment Guidance for Superfund, Part F* (USEPA, 2009) inhalation cancer risk is the product of an inhalation unit risk factor and an exposure concentration. The exposure concentration is a function of the asbestos air concentration, the length of time an individual is exposed, and the averaging time for which carcinogenic effects are evaluated for the unit risk factor. This calculation of asbestos related risk (ARR) is also consistent with application of Berman and Crump (2003) to risk calculations described in Berman (2003a; 2003b; 2005). The risk equation used in performing an asbestos inhalation risk assessment is:

$$ARR = \frac{C_{air} \times URF \times ET \times EF \times ED}{AT}$$

where:

C_{air} = air concentration of asbestos (f/cm^3) (fibers per centimeter cubed)
ET = exposure time (hours/day)
EF = exposure frequency (days/year)
ED = exposure duration (years)
AT = averaging time (hours)
URF = unit risk factor (risk per f/cm^3)

Asbestos risk estimates are compared to the USEPA acceptable risk range for carcinogens of 1 in 10,000 (10^{-4}) and 1 in 1 million (10^{-6}) and NDEP's acceptable level of 10^{-6}, although the risk estimates represent the probability of death from mesthelioma or lung cancer rather than the probability of contracting cancer. If the estimated asbestos risk falls within or below this risk range, asbestos is considered unlikely to pose an unacceptable risk to individuals under the given exposure conditions. A risk level of 1×10^{-5} (1 E-5) represents a probability of one in 100,000 that an individual could die from contracting mesothelioma or lung cancer from exposure to asbestos under a defined set of exposure assumptions.

6.4.4 Risk Assessment Results

The calculation of theoretical upper-bound ILCRs and non-cancer health effects are presented by receptor in Tables 22A, B, C through 25A, B, C and are discussed in Section 8.0. These tables present the theoretical upper-bound ILCRs and non-cancer health effects calculations for residential, construction worker, commercial (indoor) worker, and maintenance (outdoor) worker receptors. The risk of death from lung cancer or mesothelioma as a consequence of exposure to asbestos on a Site-wide basis is presented in Table 26. All calculation spreadsheets are provided in Appendix H (included on the report CD in Appendix B).

7.0 UNCERTAINTY ANALYSIS

Risk estimates are values that have uncertainties associated with them. These uncertainties, which arise at every step of a risk assessment, are evaluated to provide an indication of the uncertainty associated with a risk estimate. Risk assessments are not intended to estimate the true risk to a receptor associated with exposure to chemicals in the environment. In fact, estimating the true risk is impossible because of the variability in the exposed or potentially exposed populations. There are always gaps in knowledge because a true exposure for every individual cannot be measured. Therefore, risk assessment is a means of estimating the probability that an adverse health effect (*e.g.*, cancer, impaired reproduction) will occur in a receptor in order to assist in decision making regarding the protection of human health. The use of conservative values for a majority of the assumptions in risk assessments helps guard against the underestimation of risks.

Risk estimates are calculated by combining Site data, assumptions about individual receptor's exposures to impacted media, and toxicity data. The uncertainties in this HHRA can be grouped into four main categories that correspond to these steps:

- Uncertainties in environmental sampling and analysis
- Uncertainties in fate and transport modeling (discussed in Section 9)
- Uncertainties in assumptions concerning exposure scenarios
- Uncertainties in toxicity data and dose-response extrapolations

General uncertainties associated with the HHRA for the Site are summarized in Table 27. In Table 27, "Low," "Moderate," and "High" are qualitative indicators as to whether the source of uncertainty will likely have a small, medium, or large effect on the risk calculations, respectively. In general, the scenarios and parameters evaluated and used in this HHRA are considered conservative based on how the Site will be developed. This is a large source of potential conservative bias in this HHRA. Additional discussion on the uncertainties associated with the HHRA is provided below.

7.1 ENVIRONMENTAL SAMPLING

The HHRA for the Site was based on the sampling results obtained from investigations conducted in 2008 and 2009. Errors in sampling results can arise from the field sampling, laboratory analyses, and data analyses.

The environmental sampling at the Site is one source of uncertainty in the evaluation. However, the number of sampling locations and events is large, widespread and spatially distributed, with consistent analytical results (*i.e.*, no hot spots), and sampling was performed using approved procedures; therefore, the sampling and analysis data is sufficient to characterize the impacts and the associated potential risks.

Because of the surface soil removal for certain chemicals, the new surface layer of the Site could have different chemical concentrations than those that were measured prior to soil removal. Because only the trigger analytes were re-analyzed for in the post-scrape samples, the original measured surface soil data at the Site for all other chemicals was retained for further evaluation. However, it is reasonable to assume that the concentrations are now lower for some chemicals (*e.g.*, metals), because of the removal of some soil.

The laboratory data are another potential source of uncertainty. The types of analyses were chosen based on historical knowledge of the Site and BMI Common Areas. The data validation and data usability evaluations provided documentation that the HHRA database is adequate to support HHRA conclusions (see Section 4 and Appendix E). Based on the data validation and data usability, the risk estimates are likely to be overestimated rather than underestimated.

Uncertainties are also introduced into the risk assessment by assumptions that are made regarding the grading plan. As described in Section 3.1, the grading plan affects the interpretation of the data in terms of assigning samples to the surface or the subsurface. This was done to avoid the situation in which current surface samples might not be included in the evaluation of exposures to future surface soils. The data were subdivided by depth intervals as described in Section 3.1, and the maximum of the UCLs for the five subsets of data was used as the exposure point concentration. There is some uncertainty in the choice of subsetting on the concentrations of interest, and there is a potential small overestimation of risk by choosing the maximum of the five UCLs as the exposure point concentration. The effects are likely to be small given the data, since there is not much variation in the different UCLs. In addition, UCLs for cobalt in pond PUC-2 and vanadium in pond PUA-3 did not consider the five different subdivisions, rather a single UCLs using all data were calculated for each. This was considered adequate and representative given the limited aerial extent of these two areas; however, there may be an underestimation of risk by not considering these different subdivisions.

7.2 ESTIMATES OF EXPOSURE

The selection of exposure pathways is a process, often based on best professional judgment, which attempts to identify the most probable potentially harmful exposure scenarios. In a risk assessment it is possible that risks are not calculated for all of the exposure pathways that may occur, possibly causing some underestimation of risk.

7.2.1 Aggregation of Exposure Areas

For the residential scenario that is evaluated, default exposure areas are 1/8th acre in size. However, sampling has not been performed at the frequency of guaranteeing at least one sample per exposure area. Instead, sampling has been performed at the scale of approximately once every three acres. This is considered sufficient if the concentration distribution for COPCs appears similar across the Site. To the extent that this assumption is not valid the risk assessment might underestimate risks. However, considering the remediation activities that have been performed, and the identification at Mohawk of two sub-areas that exhibit different concentrations for one COPC each – in Ponds PUC-2 (cobalt) and PUA-3 (vanadium) – so that three exposure areas have been evaluated, the risk estimates are considered reasonable from this perspective and unlikely to have resulted in significant underestimation of risk.

7.2.2 Types of Exposures Examined

In an evaluation, risks are sometimes not calculated for all of the exposure pathways that may occur, possibly causing some underestimation of risk. However, in this case, all principal potential exposure pathways were evaluated. In this assessment, risks were estimated for future on-site residents, and indoor and outdoor worker receptors. Risks for the most likely routes of exposure to these receptors were estimated. For example, risks to residents were estimated for soil ingestion, skin contact with soil, inhalation of outdoor air (including dust generation), inhalation of indoor air, and ingestion of homegrown produce. Although it is possible that other exposure routes could exist (for example, downwind off-site residents), these exposures are expected to be lower than the risks associated with the pathways considered.

7.2.3 Intake Assumptions Used

The risks calculated depend largely on the assumptions used to calculate the rate of COPC intake. For this assessment, standard default values developed by USEPA are used for reasonable maximum exposures frequency and exposure duration for all receptors. These estimates are conservative values, and the possibility that they underestimate the risk is low. The uncertainties associated with particular parameters used in this risk assessment are described below.

The amount of COPCs the body absorbs may be different from the amount of a COPC contacted. In this HHRA absorption of ingested and inhaled COPCs is conservatively assumed to be 100 percent.

Current USEPA guidance (USEPA 2004e) states that “There are no default dermal absorption values presented for volatile organic compounds nor inorganic classes of compounds. The rationale for this is that in the considered soil exposure scenarios, volatile organic compounds would tend to be volatilized from the soil on skin and should be accounted for via inhalation routes in the combined exposure pathway analysis. For inorganics, the speciation of the compound is critical to the dermal absorption and there are too little data to extrapolate a reasonable default value.” While USEPA guidance does not specifically state that this pathway should be dismissed, consistent with the approach utilized in current USEPA guidance, the risk estimates in this HHRA do not include a dermal absorption value for VOCs or inorganics (unless a specific value has been identified). Thus, the risks presented in this assessment could be underestimated as a result.

While there have been numerous studies in recent years detailing the presence of perchlorate in produce, the homegrown exposure pathway was not evaluated for perchlorate in the HHRA. BRC has not been able to identify an appropriate soil-to-plant uptake factor for this pathway. The studies predominately focus on water-to-plant uptake. Dr. W. Andrew Jackson at Texas Tech University has been studying perchlorate plant uptake and does not believe that the soil-to-plant pathway for a garden scenario is realistic for perchlorate (Jackson 2010). Perchlorate is extremely soluble and in surface soil would rapidly be flushed away due to application of irrigation water (Jackson 2010). In addition, laboratory experiments have demonstrated that perchlorate may be reduced to chloride in some plants (ATSDR 2008b). Also, concentrations of perchlorate in soils at this site are quite low relative to risk levels of concern, so the contribution of perchlorate to risk is quite small. Adding the soil-to-plant component is unlikely to add significantly to the risk. Consequently, the effect on the risk assessment of excluding perchlorate from the soil-to-plant pathway is likely to be small.

Soil preparation for a backyard garden is not accounted for in the HHRA and would result in reduced soil concentrations. Las Vegas area soils are "*…alkaline, clayish, caliche or hard and salty*" (Mills 2000). In addition, "*…soils are lacking organic matter and nutrients*" (Mills 2000). Therefore, residential gardening cannot occur in Site soils in its existing condition. For non-native vegetation to grow, soil amendments must be added. Recommended soil preparations for the area include thoroughly blending equal amounts of organic matter with the soil as well as the addition of other soil amendments (*e.g.*, fertilizers).

The construction activity dust emissions did not take into account dust control measures which would reduce the amount of dust generated to below those levels used in the HHRA. The Clark County Department of Air Quality and Environmental Management has dust control permitting requirements, and an inhalable particulate matter action level of 50 $\mu g/m^3$. The construction activity dust emissions predicted and used in the HHRA exceeded this level. Therefore, dust suppression activities would need to be implemented, thus reducing dust levels and exposures.

The dispersion factor for the construction worker is not adjusted to account for soil intrusion activities. Because these activities may cause increased air concentrations than that evaluated, risks to VOCs in soil may be underestimated for this receptor. However, VOCs are primarily associated with groundwater, this potential underestimation is considered low.

7.3 TOXICITY ASSESSMENT

The availability and quality of toxicological data is another source of uncertainty in the risk assessment. Uncertainties associated with animal and human studies may have influenced the toxicity criteria. Carcinogenic criteria are classified according to the amount of evidence available that suggests human carcinogenicity. In the establishment of the non-carcinogenic criteria, conservative safety factors, known as uncertainty and modifying factors, are used.

7.3.1 COPCs Lacking Toxicological Data

Toxicity criteria have not been established for some of the chemicals detected at the Site. These chemicals were not quantitatively evaluated in the HHRA. For example, niobium is a COPC for which no USEPA toxicity criteria have been established. The health effects and levels of concern for niobium in soil are not known. While not including niobium may have resulted in a low degree of underestimation of quantitative Site risk estimates, the available toxicological information suggests that this underestimation will not likely affect the decisions made relative to Site risks.

Because of the inconclusive nature of TICs as potentially site-related chemicals, non-cancer surrogate toxicity criteria were not applied. Non-cancer surrogate toxicity criteria were not applied to the inorganic chemicals because of the complexity of ion and metal toxicity. A quantitative estimation of risk was not conducted for these COPCs. Thus, the risks presented in this assessment could be underestimated as a result.

For the surface flux results, there are a few organic chemicals (*e.g.*, n-heptane, 2-hexanone, cymene) detected that do not have toxicity criteria available. Surrogate toxicity criteria were not applied for these chemicals. Therefore, a quantitative estimation of risk was not conducted for these chemicals. Thus, the risks presented in this assessment could be underestimated as a result.

7.3.2 Uncertainties in Animal and Human Studies

Extrapolation of toxicological data from animal tests is one of the largest sources of uncertainty in a risk assessment. There may be important, but unidentified, differences in uptake, metabolism, and distribution of chemicals in the body between the test species and humans. For the most part, these uncertainties are addressed through use of conservative assumptions in establishing values for RfDs, RfCs, CSFs, and IURs, which results in the likelihood that the risk is overstated.

Typically, animals are administered high doses (*e.g.*, maximum tolerated dose) of a chemical in a standard diet or in air. Humans are generally exposed to much lower doses in the environment, which may affect the toxicity of the chemical. In these studies, animals, often laboratory rodents, are exposed daily to the chemical agent for various periods of time up to their 2-year lifetimes. Humans have an average 70-year lifetime and may be exposed either intermittently or regularly for an exposure period ranging from months to a full lifetime. Because of these differences, it is not surprising that extrapolation error is a large source of uncertainty in a risk assessment.

7.3.3 Non-Carcinogenic Toxicity Criteria

In the establishment of the non-carcinogenic criteria, conservative safety factors, known as uncertainty factors, are used. Most of the chronic non-carcinogenic toxicity criteria that were located in the IRIS database have uncertainty factors of 1,000. This means that the dose corresponding to a toxicological effect level (*e.g.*, LOAEL) is divided by 1,000 to establish a safe, or "reference", dose. The purpose of the uncertainty factor is to account for the extrapolation of toxicity data from animals to humans and to insure the protection of sensitive individuals. There are multiple toxicity criteria listed in IRIS and HEAST for vanadium and compounds. The oral RfD listed for vanadium in the NDEP BCL table, which cites IRIS as the source, was used in this HHRA.

7.3.4 Sub-Chronic Non-Carcinogenic Toxicity Criteria

Construction worker exposures are evaluated for an exposure duration of one-year, which is more representative of a sub-chronic exposure rather than a chronic exposure. As such, where available, sub-chronic RfDs were used to characterize non-cancer effects for the construction worker. However, for many COPCs a sub-chronic RfD was not available and the chronic RfD was used. This likely presented an overestimation of non-cancer health risks to the construction worker.

7.3.5 Carcinogenic Toxicity Criteria

Uncertainty due to extrapolation of toxicological data for potential carcinogens tested in animals to human response is commonly the case for potentially carcinogenic chemicals. USEPA frequently uses the linearized multi-stage model, or other non-threshold low dose extrapolation models, to extrapolate the toxicological data to estimate human response. These low dose extrapolation models assume that there is no threshold for carcinogenic substances; that is, exposure to even one molecule, fiber, or picocuries of a carcinogen is sufficient to cause cancer. This is a highly conservative assumption because the body has several mechanisms to protect against cancer.

The use of the linearized multi-stage model to extrapolate is a well-recognized source of significant uncertainty in the development of carcinogenic toxicity criteria and, subsequently, theoretical carcinogenic risk estimates. At high levels of exposure, there may indeed be a risk of cancer regardless of whether the effect occurs via a threshold mechanism or not. An animal bioassay can’t determine what happens at low levels of exposure, however, which are generally typical of human exposure levels.

At low levels of exposure, the probability of cancer cannot be measured but must be extrapolated from higher dosages. To do this, animals are typically exposed to carcinogens at levels that are orders of magnitude greater than those likely to be encountered by humans in the environment. It would be difficult, if not impossible, to perform animal experiments with a large enough number of animals to directly estimate the level of risk at the low exposure levels typically encountered by humans. Thus, to estimate the risk to humans exposed at low levels, dose-response data derived from animals given high dosages are extrapolated downward using mathematical models such as the linearized multi-stage model, which assumes that there is no threshold of response. The dose-response curve generated by the model is known as the maximum likelihood estimate. The slope of the 95 percent lower confidence interval (*i.e.*, upper-bound limit) curve, which is a function of the variability in the input animal data, is taken as the CSF. CSFs are then used directly in cancer risk assessment.

The federal government, including USEPA itself, has acknowledged the limitations of the high-to-low dose extrapolation models, particularly the linearized multi-stage model (USEPA 1991c). In fact, this aspect of cancer risk assessment has been criticized by many scientists (including regulatory scientists) in recent years. USEPA has recently released revised cancer risk assessment guidelines (USEPA 2005c).

Even for genotoxic (*i.e.*, non-threshold) substances, there are two major sources of bias embedded in the linearized multi-stage model: (1) its inherent conservatism at low doses and (2) the routine use of the linearized form in which the 95 percent upper confidence interval is used instead of the unbiased maximum likelihood estimate. The inherent conservatism at low doses is due in part to the fact that the linearized multi-stage model ignores all of the numerous biological factors that argue against a linear dose- response relationship for genotoxic effects (*e.g.*, DNA repair, immunosurveillance, toxicokinetic factors).

Several other factors inherent in the linearized multi-stage model result in overestimated carcinogenic potency: (1) any exaggerations in the extrapolation that can be produced by some high dose responses (if they occur) are generally neglected, (2) upper confidence limits on the actual response observed in the animal study are used rather than the actual response, resulting in upper-bound low dose extrapolations, which can greatly overestimate risk, and (3) non-genotoxic chemicals (*i.e.*, threshold carcinogens) are modeled in the same manner as highly genotoxic chemicals.

7.3.6 Uncertainties with the Asbestos Risk Assessment

For the risk assessment, asbestos concentrations were presented two ways, as a best estimate and upper bound based upon the UCL of the mean of the Poisson distribution. No detections of amphibole fibers were observed. However, when zero fibers are observed, the UCL of the mean is approximately three fibers, and this value is used as the basis for the reasonable maximum exposure point concentration for the asbestos risk assessment. Considering the remediation activities that have been performed, and the observation of zero amphibole fibers, this approach might result in overestimation of amphibole related risks.

Asbestos risk estimates are highly dependent on the number of samples to increase or decrease the pooled analytical sensitivity. That is, a larger number of non-detect samples with similar individual analytical sensitivity results in a lower pooled analytical sensitivity and subsequently a lower estimated asbestos related risk. Whereas, a smaller number of non-detect samples results in a higher asbestos related risk. Uncertainty is, thus, reduced as more samples are collected.

7.4 CUMULATIVE EFFECT OF UNCERTAINTIES

Uncertainties from different sources are compounded in the HHRA. For example, if a person's daily intake rate for a chemical is compared to an RfD to determine potential health risks, the uncertainties in the concentration measurements, exposure assumptions, and toxicities are all expressed in the result. Because the exposure assumptions and toxicity criteria are considered conservative, the risk estimates calculated in this HHRA are likely to overestimate rather than underestimate potential risks.

8.0 SUMMARY OF RESULTS

This HHRA has evaluated potential risks to human health associated with chemicals and asbestos detected in soil at the Mohawk Sub-Area located within the BMI Common Areas in Clark County, Nevada. The calculation of chemical theoretical upper-bound ILCRs and non-cancer health effects are presented in Appendix H (included on the report CD in Appendix B). Asbestos risk calculations are also presented in Appendix H (included on the report CD in Appendix B). All calculation spreadsheets for this HHRA are included in Appendix H (included on the report CD in Appendix B).

The risk estimates are based on reasonable maximum exposure scenarios, which results in estimates of the potential reasonable maximum, or high-end, risks associated with the Site. The calculated chemical theoretical upper-bound ILCRs and HIs are presented in Tables 22A, B, C through 25A, B, C for residential, construction worker, commercial (indoor) worker, and maintenance (outdoor) worker receptors, respectively. Asbestos estimated risk of death from lung cancer or mesothelioma on a Site-wide basis are presented in Table 26.

8.1 RESIDENTS

<u>Exposure Area – PUC-2</u>

For chemical exposures, the total cumulative non-cancer HI for future residential receptors at PUC-2 is 1.4 (including the surface flux air risk estimates[28]), which is above the target HI of 1.0 (see Table 22A), driven by cobalt and vanadium soil exposures. Because the total cumulative HI exceeds 1.0, the potential for adverse health effects was further evaluated by considering the target organs upon which each chemical could have an adverse effect. Target organ-specific HIs are also shown in Table 22A. The target organ-specific HIs have been summed for all relevant COPCs (Note: target organs for each COPC are identified in the calculation spreadsheets included in Appendix H [included on the report CD in Appendix B] and in Table 21). The maximum target organ-specific HI is 0.95 (thyroid) driven by cobalt soil exposures (see Table 22A). None of the target organ non-cancer HIs are above 1.0.

[28] The minimum and maximum surface flux risk estimates are summed with the soil risk estimates to provide a range of cumulative risks. The minimum and maximum surface flux risk estimates are provided in Appendix H (included on the report CD in Appendix B) and the receptor-specific chemical risk summary tables. The risks shown are cumulative risks using the maximum surface flux risk estimate.

The maximum theoretical upper-bound ILCR for future residential receptors at PUC-2 is 1×10^{-6} (including the surface flux air risk estimates see Table 22A). The range of ILCRs is 2×10^{-7} to 1×10^{-6}. The ILCR is near the low end of the risk goal of 1×10^{-6} and is driven by the indoor air ILCR for flux sample MC1-J12 due to chloroform, carbon tetrachloride, and 1,4-dioxane.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for future residential receptors at PUA-3 is 1.0 (including the surface flux air risk estimates) (see Table 22B) driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0, however, it should be noted that the maximum target organ HI is 0.93 (blood).

The maximum theoretical upper-bound ILCR for future residential receptors at PUA-3 is 1×10^{-6} (including the surface flux air risk estimates see Table 22B). The range of ILCRs is 1×10^{-7} to 1×10^{-6}. The ILCR is near the low end of the risk goal of 1×10^{-6} and is driven by the indoor air ILCR for flux sample MC1-J12 due to chloroform, carbon tetrachloride, and 1,4-dioxane.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for future residential receptors at the Site is 0.46 (including the surface flux air risk estimates) (see Table 22C) driven by vanadium and thallium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for future residential receptors at the Site is 1×10^{-6} (including the surface flux air risk estimates see Table 22C). The range of ILCRs is 1×10^{-7} to 1×10^{-6}. The ILCR is near the low end of the risk goal of 1×10^{-6} and is driven by the indoor air ILCR for flux sample MC1-J12 due to chloroform, carbon tetrachloride, and 1,4-dioxane.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to future residential receptors were below 1×10^{-6}. For residential receptors, the best estimate and upper bound concentrations for chrysotile fibers are 1×10^{-8} and 2×10^{-8}; and zero and 2×10^{-7} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}. The upper bound estimated risk of death from lung cancer or mesothelioma is estimated based on the 95 percent UCL of the count of the number of fibers detected, assuming a Poisson distribution for the count. Note that when the observed count is zero, the 95 percent UCL is approximately three fibers. Therefore, the high-end risk estimate for deaths from lung cancer or mesothelioma is a conservative value since it is based on a 95 percent UCL of the Poisson distribution of three long amphibole structures although no long amphibole structures have been detected at the Site.

8.2 CONSTRUCTION WORKERS

Exposure Area – PUC-2

For chemical exposures, the total cumulative non-cancer HI for construction worker receptors at PUC-2 is 0.48 (including the surface flux air risk estimates) (see Table 23A), driven by cobalt and vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for construction worker receptors at PUC-2 is 2×10^{-7} (including the surface flux air risk estimates see Table 23A) and is driven by cobalt soil exposures. The flux ILCRs range from 1×10^{-10} to 3×10^{-9} driven by carbon tetrachloride and chloroform at flux sample location of MC1-J12. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for construction worker receptors at PUA-3 is 0.25 (including the surface flux air risk estimates) (see Table 23B), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for construction worker receptors at PUA-3 is 2×10^{-8} (including the surface flux air risk estimates see Table 23B) and is driven by hexavalent chromium dust exposures. The flux ILCRs range from 1×10^{-10} to 3×10^{-9} driven by carbon tetrachloride and chloroform at flux sample location of MC1-J12. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for construction worker receptors at the Site is 0.12 (including the surface flux air risk estimates) (see Table 23C), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for construction worker receptors at the Site is 2×10^{-8} (including the surface flux air risk estimates see Table 23C) and is driven by hexavalent chromium dust exposures. The flux ILCRs range from 1×10^{-10} to 3×10^{-9} driven by carbon tetrachloride and chloroform at flux sample location of MC1-J12. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to construction workers were below 1×10^{-6}. For construction worker receptors, the best estimate and upper bound concentrations for chrysotile fibers are both 2×10^{-8}; and zero and 3×10^{-7} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}.

8.3 COMMERCIAL (INDOOR) WORKERS

Exposure Area – PUC-2

For chemical exposures, the total cumulative non-cancer HI for commercial (indoor) worker receptors at PUC-2 is 0.04 (including the surface flux air risk estimates) (see Table 24A), driven by cobalt soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (indoor) worker receptors at PUC-2 is 1×10^{-7} (including the surface flux air risk estimates see Table 24A). The range of ILCRs is 1×10^{-8} to 1×10^{-7} and is driven by the indoor air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for commercial (indoor) worker receptors at PUA-3 is 0.035 (including the surface flux air risk estimates) (see Table 24B), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (indoor) worker receptors at PUA-3 is 1×10^{-7} (including the surface flux air risk estimates see Table 24B) and is driven by the indoor air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for commercial (indoor) worker receptors at the Site is 0.015 (including the surface flux air risk estimates) (see Table 24C), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (indoor) worker receptors at the Site is 1×10^{-7} (including the surface flux air risk estimates see Table 24C) and is driven by the indoor air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to commercial (indoor) workers were below 1×10^{-6}. For commercial (indoor) worker receptors, the best estimate and upper bound concentrations for chrysotile fibers are 2×10^{-9} and 3×10^{-9}; and zero and 4×10^{-8} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}.

8.4 MAINTENANCE (OUTDOOR) WORKERS

Exposure Area – PUC-2

For chemical exposures, the total cumulative non-cancer HI for commercial (outdoor) worker receptors at PUC-2 is 0.07 (including the surface flux air risk estimates) (see Table 25A), driven by cobalt and vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (outdoor) worker receptors at PUC-2 is 1×10^{-7} (including the surface flux air risk estimates see Table 25A). The range of ILCRs is 6×10^{-8} to 1×10^{-7} and is driven by the ambient air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The soil ILCR is driven by formaldehyde ambient air exposures. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for commercial (outdoor) worker receptors at PUA-3 is 0.062 (including the surface flux air risk estimates) (see Table 25B), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (outdoor) worker receptors at PUA-3 is 1×10^{-7} (including the surface flux air risk estimates see Table 25B$) and is driven by the ambient air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The soil ILCR is driven by formaldehyde ambient air exposures. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for commercial (outdoor) worker receptors at the Site is 0.026 (including the surface flux air risk estimates) (see Table 25C), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (outdoor) worker receptors at the Site is 1×10^{-7} (including the surface flux air risk estimates see Table 25C) and is driven by the ambient air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The soil ILCR is driven by formaldehyde ambient air exposures. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to maintenance (outdoor) workers were below 1×10^{-6}. For maintenance (outdoor) worker receptors, the best estimate and upper bound concentrations for chrysotile fibers range from 5×10^{-9} to 8×10^{-9} and zero and 9×10^{-8} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}.

9.0 POTENTIAL IMPACTS TO GROUNDWATER

This Section presents the evaluation of the potential impacts to groundwater of residual chemicals in soil and considering the future land use of the Site. This evaluation has been conducted using both the VLEACH and SESOIL vertical unsaturated zone migration models and site-specific analytical results of soil samples collected from the Site. The SESOIL modeling was conducted for all non-volatile COPCs identified in the HHRA.[29] The SESOIL modeling was selected because it can provide a consistent framework for evaluating potential groundwater impacts for the non-volatile COPCs. However, SESOIL does not simulate downward vapor-phase diffusion. Therefore, VLEACH was used for the volatile COPCs identified in the HHRA in the soil matrix. The evaluation was conducted using the SESOIL and VLEACH models as distributed by Waterloo Hydrogeologic, Inc. in the model software package WHI UnSat Suite Plus 2.2.03.

9.1 SESOIL MODEL

SESOIL is designed for long-term environmental hydrologic, sediment, and pollutant fate simulations. The model is structured around three cycles: (1) the hydrologic cycle, which takes into account rainfall, infiltration, soil moisture, surface runoff, exfiltration, evapotranspiration, groundwater discharge, and capillary rise; (2) the sediment cycle, which is currently not available in the model; and (3) the pollutant cycle, which takes into account advection, diffusion, volatilization, adsorption/desorption, chemical degradation/decay, biological transformation and uptake, hydrolysis, photolysis, oxidation, and cation exchange. A complete description of the model equations and assumptions is provided in *SESOIL A Seasonal Soil Compartment Model* (Bonazountas and Wagner 1984). Extensive modifications to the original version of SESOIL are described in Hetrick *et al*. (1989). The most current version of SESOIL incorporates these modifications.

Because the SESOIL model ignores a number of possible attenuating factors, it is likely that it over predicts the actual chemical migration rate in the vadose zone. However, because of its simplicity, this approach provides a simple method to estimate the likely maximum rate at which chemicals would be transported in the vadose zone down to groundwater. All input parameters

[29] Although the *BRC Closure Plan* identifies the use of SESOIL for inorganic compounds, PESTAN for pesticides, and VLEACH for other organic compounds; subsequent information indicates that PESTAN is inappropriate for this type of modeling. Therefore, because SESOIL is an appropriate model for inorganics, pesticides, and other organic compounds, for consistency, SESOIL was used for all non-VOCs at the Site.

used in the model simulations are presented in Appendix K (included on the report CD in Appendix B).

Inputs for SESOIL are broken out into the following elements:

- Climate Data (Table K-1): consists of nine monthly climatological inputs. Data for this file are accessed from the climatic dataset incorporated into WHI UnSat Suite Plus. This dataset contains monthly averages for over 200 first order weather stations throughout the U.S.
- Soil Data (Table K-2): consists of several parameters that describe the soil properties for the Site.
- Chemical Data (Table K-3): consists of several parameters used to describe the properties of the COPC.
- Application Data (Table K-4): consists of a number of inputs that describe soil layer specific data and the chemical application load.
- Initial Concentrations (Table K-5): consists of the COPC concentrations used at time zero.

Data for Las Vegas, the closest first order weather station to the Site with similar meteorological conditions, are considered representative of the Site and input into this file. Input parameters for this data file include temperature, cloud cover, relative humidity, precipitation, and albedo, which relates to the fraction of light or electromagnetic radiation reflected by a surface. Evapotranspiration is calculated by the model based on temperature, cloud cover, relative humidity, and albedo (precipitation is not included as part of this calculation). Greater evapotranspiration inhibits infiltration, leading to slower downward migration of the chemicals. The climate dataset used is shown in Table K-1, in Appendix K.

The soil model input data consists of several parameters which describe soil properties. Average values of measured site-specific data of soil porosity, density and organic carbon content were used in the model (Table K-2, in Appendix K; see also the Site dataset included on the report CD in Appendix B). For parameters without measured Site data (cation exchange coefficient, Freundlich exponent), default inputs consistent with a sand soil type were used, with the exception of soil disconnectedness index. The default sand soil disconnectedness index of 3.7 was modified to 5.59 such that the overall recharge rate to groundwater predicted by the model would be consistent with the default, pre-development recharge rate predicted in the groundwater flow model developed for the Eastside property (DBS&A 2009). A recharge rate of 0.08 inches per year (for undeveloped areas) was estimated as part of that model.

The chemical model input data consists of several parameters used to describe the properties of the chemical of concern. USEPA Soil Screening Guidance (2002b) default chemical properties were used where available. NDEP's BCL guidance (NDEP 2010a) was a secondary source for these parameters. Chemical parameters used in the evaluation are presented in Table K-3, in Appendix K.

The application model input data consists of a number of inputs that describe infiltration-layer-specific data and the chemical application load. The model was run without application load. For purposes of this evaluation, the soil column was divided into four infiltration layers (Table K-4, in Appendix K). The designation of each layer and the width of each infiltration layer were:

Designation	Thickness (feet)	Boundary Depths (feet)
Infiltration Layer One	10	0 – 10
Infiltration Layer Two	10	10 – 20
Infiltration Layer Three	10	20 – 30
Infiltration Layer Four	15	30-45

For the purposes of inputting the initial soil chemical concentrations, the first three layers were divided into ten individual one foot thick sub-layers and the last layer was divided into ten individual one and half foot thick sub-layers. The initial soil chemical concentration in each sub-layer for the simulation was the maximum detected concentration in each soil depth horizon corresponding to each sub-layer (Table K-5, in Appendix K).

The depth to groundwater has been observed to vary from 45 to 70 feet bgs in recent (July-August 2009) sampling. The shallowest depth to groundwater in the vicinity of the Site was 49 feet bgs. Therefore, groundwater was conservatively assumed to be at a depth of 45 feet bgs (given known depths to groundwater for the Site). The SESOIL model is one dimensional, that is, it is limited to calculations and predictions within the soil column defined by the input parameters.

9.2 VLEACH MODEL

VLEACH is a USEPA one-dimensional finite-difference vadose zone leaching model that describes the movement of an organic contaminant within and between three phases: (1) as a solute dissolved in water, (2) as a gas in the vapor phase, and (3) as an adsorbed compound in the solid phase. Similar to SESOIL, the VLEACH model ignores a number of possible attenuating factors. The VLEACH model is based on several assumptions that typically result in conservative evaluations of migration potential. These assumptions include:

- The model simulates one-directional flow only;
- Liquid phase dispersion is neglected. Hence, the migration of the chemical will be simulated as a plug. This assumption causes higher dissolved concentrations and lower travel time predictions than would occur in reality, and;
- Instantaneous equilibrium between phases is assumed within each cell. After the mass is exchanged between the cells, the total mass in each cell is recalculated and re-equilibrated between the different phases and applied to the full depth of each cell. Thus assuming that some portion of the mass transferred into the top of one cell instantaneously reaches the bottom of the cell.

Therefore, it likely over predicts the actual chemical migration rate in the vadose zone. VLEACH requires the following soil input parameters: bulk density; effective porosity, moisture content and organic carbon content. All soil and chemical input parameters used in the SESOIL model were used in the VLEACH model. For soil moisture, which is an input for VLEACH but is calculated by SESOIL, the soil moisture calculated by SESOIL for each of the recharge scenarios was utilized in VLEACH to maintain consistency between the models. Additional model input parameters specific to the VLEACH model are presented in Table K-6, in Appendix K.

9.3 POTENTIAL IMPACTS TO CHEMICAL MIGRATION MECHANISMS FOLLOWING REDEVELOPMENT

Migration of chemicals in soil to groundwater may be affected following redevelopment. Future redevelopment will likely result in increased surface water infiltration due to sources such as buried water lines, sewer lines, irrigation lines and/or over-watering of parks and lawns. These sources have the potential to enhance the migration to groundwater of the post-remediation levels of chemicals remaining in soils. Subsequently, three surface water infiltration scenarios were evaluated.

The first scenario evaluates recharge relative to baseline, pre-development conditions. This scenario assesses the potential for surface precipitation on unimproved ground surface (titled a "baseline" scenario), to influence migration of chemicals to groundwater. This is consistent with recharge rate predicted in the groundwater flow model developed for the Eastside property (DBS&A 2009). A recharge rate of 0.08 inches per year (for undeveloped areas) was estimated as part of that model.[30]

The second scenario evaluates recharge relative to normal post-development conditions. This scenario assesses the potential for surface water recharge in improved areas associated with commercial and residential construction, to influence migration of chemicals to groundwater. This is consistent with recharge rate predicted in the groundwater flow model developed for the Eastside property (DBS&A 2009). A recharge rate of 0.57 inches per year (for undeveloped areas) was estimated as part of that model (titled the "normal" scenario).

Lastly, a scenario of post-development enhanced recharge was also evaluated as part of the groundwater flow model developed for the Eastside property (DBS&A 2009), and incorporated into the vadose zone modeling. This scenario evaluates surface water recharge associated with overwatering of open space. A recharge rate of 8.672 inches per year was estimated as part of that model (titled the "enhanced" scenario).

Therefore, additional modeling runs were conducted using the SESOIL and VLEACH models to account for the potential increased recharge to groundwater for each of the two post-development scenarios. For SESOIL, the only modification was to increase the monthly rainfall to 1.861 cm/month for the normal post development scenario, and 6.01 cm/month for the enhanced recharge scenario. While the input of additional applied precipitation is more than the amount of post-development modeled water infiltration (DBS&A 2009), this is necessary to offset the effect of model estimated evapotranspiration (because the model only applies infiltration as a surface rather than as a subsurface source). The values of 1.861 and 6.01 cm/month are values selected by iterative model runs conducted to identify a precipitation rate that approximates and results in the desired recharge(s) to groundwater. The modified rainfall totals used for this modeling run are provided in Table K-1, in Appendix K.

[30] Note that the scenario has been modeled for only a subset of the COPCs (those considered the most likely to impact groundwater). Based on discussions with NDEP and its consultants, this is considered sufficient for the Site.

9.4 MODEL UNCERTAINTY

Use of site-specific values, where available, is recommended. A number of limitations exist for the models. These include:

- Data gaps/ uncertainties in site-specific properties
- Omission of certain chemical and physical processes
- Lack of an appropriate model validation opportunity

Data gaps, uncertain and/or variable input values that may exist for the Site include:

- Site specific meteorological data (uncertain/variable)
- Soil input parameter measurements for the different soil layers incorporated in the model (*e.g.*, intrinsic permeability, organic carbon content [uncertain/variable])
- Site specific chemical data (*e.g.*, degradation rates [gap])

Any interactions that may occur among the different chemicals present in the soil which may influence the migration and/or fate of the various chemicals is not taken into account in the model (*e.g.*, chemical mobility may decrease or increase in the presence of other solvent-related chemical components). Reasonable effort has been made to obtain results that provide reasonable estimates of actual Site conditions. Uncertain input values were selected based on available scientific and regulatory information to err on the conservative side.

9.5 RESULTS

SESOIL and VLEACH results are provided in Table K-7 in Appendix K, and are summarized in Table 28. The results include maximum depth of infiltration, the maximum pore water concentrations in the vadose zone at the groundwater interface and the maximum measured groundwater concentration (observed during the latest groundwater monitoring event; July-August 2009). The SESOIL and VLEACH outputs provided electronically in Appendix K (included on the report CD in Appendix B) contain the results of the evaluation for each of the COPCs and scenarios. Under all recharge scenarios none of the metal or organochlorine pesticide COPCs, nor fluoride are expected to reach groundwater within 100 years.

For organics, 1,2,4-trimethylbenzene, acetone, acetaldehyde, benzene, dichloromethane, and formaldehyde all are predicted to reach groundwater under one or more scenarios. Under the enhanced recharge scenario only, acetaldehyde results in estimated pore water concentrations at the groundwater interface that exceed its residential water BCL (NDEP 2010a). For acetaldehyde, the exceedance was by a factor of 2.5 (164 μg/L) times greater than the BCL (65.7 μg/L). However, neither acetaldehyde nor formaldehyde have been detected in shallow groundwater in the vicinity of the Site, which would be expected given the length of time since the ponds were in use, given the model results. If the model were accurately predicting levels of acetaldehyde and formaldehyde in groundwater, then observed levels would be much higher than they are. Therefore, it is likely that attenuation of acetaldehyde and formaldehyde in the soil column is occurring, which is not being accounted for by the model. As such, the model is considered overly conservative and residual levels of organic COPCs in Site soils should not pose an unacceptable risk to groundwater quality.

For inorganics, ammonia, nitrate, and perchlorate, are all predicted to reach groundwater and results in estimated pore water concentrations at the groundwater interface that exceed their residential water BCLs (NDEP 2010a) under all scenarios. For ammonia, the exceedances range by a factor of 11 (8,400 μg/L) to 27 (20,000 μg/L) times greater than the BCL (730 μg/L). For nitrate, the exceedances range by a factor of 1,250 (1,250,000 μg/L) to 2,000 (2,000,000 μg/L) times greater than the BCL (1,000 μg/L). For perchlorate, the exceedances range by a factor of 2,400 (44,000 μg/L) to 8,000 (140,000 μg/L) times greater than the BCL (18 μg/L).

Of note is that for nitrate and perchlorate, these concentrations approach or equal the COPCs solubility shortly into the simulation. Also relevant to this discussion is consideration that some constituents such as nitrate have naturally-occurring/background concentrations comparable to Site concentrations; however, only metals and radionuclides are evaluated in the background comparison analyses. Thus, it is plausible that naturally occurring concentrations of nitrate, when modeled, might also produce estimated water concentrations that exceed BCLs and measured groundwater concentrations.

In addition, ammonia, nitrate, and perchlorate the adsorption to soils is very variable and uncertain, the modeling assumed very low Kd values for these constituents to maximize the downward migration to groundwater. With such low adsorption coefficients the model also predicted such rapid mass migration to groundwater that all would hit groundwater within a few years and exceed their BCLs shortly thereafter. However, while these chemicals are detected in shallow groundwater at the Site, the concentrations are orders of magnitude less than predicted (it is also noted that use of the Summers groundwater mixing model would likely do little to affect these results).

The time since discontinued use of the ponds exceeds the timeframes for inorganic COPCs to reach groundwater at the concentrations predicted to exceed BCLs. Based upon the differences in the modeling predicted results and the observed measurements in groundwater, it is considered probable that processes not accounted for in the model are reducing/attenuating concentrations of inorganic COPCs as they migrate through the vadose zone towards groundwater. Based on the elapsed time since any Site use, the lack of observations of the evaluated chemicals in groundwater at the Site or concurrence between measured and predicted concentrations, and the reasonably mobile nature of the COPCs evaluated, these cumulative lines of evidence suggest that 1) the modeling environment utilized in this evaluation is likely to be overly conservative, and 2) there is insufficient evidence to suggest that the concentrations of organics and inorganics detected in Site soils represent a risk to groundwater quality.

10.0 DATA QUALITY ASSESSMENT

Sample size calculations were conducted for eight analytes (arsenic, total chromium, hexavalent chromium, cobalt, formaldehyde, radium-226, TCDD TEQ, and vanadium) for the Site. Rationale for the inclusion of these analytes in the sample size calculations are provided below:

- Arsenic – a chemical of primary concern for the overall project, often exceeding comparison levels;
- Total chromium – found in a few locations at unexpectedly high concentrations resulting in high sample variability;
- Hexavalent chromium – the metal (besides arsenic) with the most exceedances of background concentrations;
- Cobalt – found in a few locations at unexpectedly high concentrations resulting in high sample variability, and a primary non-cancer risk driver;
- Formaldehyde – the non-dioxins/furans/PCB congeners organic chemical with the highest number of detected results;
- Radium-226 – a chemical of primary concern for the overall project, often exceeding comparison levels, representative of radionuclides;
- TCDD TEQ – a chemical of primary concern for the overall project; and
- Vanadium – found in a few locations at unexpectedly high concentrations resulting in high sample variability, and a primary non-cancer risk driver.

The formula used here for calculation of sample size is based on a non-parametric test (the Wilcoxon signed rank test), and on simulation studies performed by Pacific Northwest National Laboratories (PNNL 2009) that formed the basis for an approximate formula that is based on the normal distribution. Essentially, the formula is the one that would be used if a normal-based test were being performed, but an adjustment is made (multiply by 1.16) to account for the intent to perform a non-parametric test. The formula is as follows:

$$n = 1.16\left[\frac{s^2}{\Delta^2}(z_{1-\alpha} + z_{1-\beta(\mu)})^2 + 0.5z_{1-\alpha}^2\right]$$

where,

n	=	number of samples
s	=	estimated standard deviation of concentrations/fibers
Δ	=	width of the gray region (the difference between the threshold value stated in the null hypothesis and the point at which β is specified)
α	=	significance level or Type I error tolerance
β (μ)	=	Type II error tolerance; and
z	=	quantile from the standard normal distribution

For each chemical, inputs for the calculations include an estimate of the variance from the measured data, a desired significance level, and desired power of the test that must be specified at a concentration of interest (which determines the tolerable difference from the threshold value). For arsenic, the Site mean concentration exceeds its BCL based on the target cancer risk level of 10^{-6}. It is not appropriate to apply this calculation where the threshold value is less than the mean concentration. Therefore, an adjustment of the threshold value was used based on a 10^{-5} target cancer risk level. The calculations provided here cover a range of Type I and Type II error tolerances, and the point at which the Type II error is specified. Results are presented in Table 29. In Table 29, various combinations of input values are used, including: values of α of 5%, 10% and 15%; values of β of 15%, 20%, and 25%; and a gray region of width 10%, 20% and 30% of the threshold level. It is clear from Table 29 that the number of samples collected is adequate for the Site. That is, all calculated adequate sample numbers are less than those actually collected at the Site for use in the HHRA.

The number of samples for cobalt in PUC-2 (13 samples) and vanadium in PUA-3 (eight samples) meet the minimum calculated adequate sample number as shown in Table 29. In addition, because of the limited aerial extent of these two separate exposure areas there are greater numbers of samples per acre than for the Site-wide values. For example, considering the sub-area, there are roughly two arsenic samples per acre. In comparison, for these two separate exposure areas, there are approximately 15 to 16 cobalt and vanadium samples per acre. Thus the number of samples for cobalt and vanadium within these areas are considered adequate. Note also that there are 54 samples for amphibole asbestos. Amphibole was not detected in any of these samples, however, because of the number of samples collected, the asbestos related risks are all less than 1×10^{-6}. Consequently, sufficient samples have been collected to address asbestos related risks.

11.0 SUMMARY

BRC has prepared this HHRA and Closure Report for the Site. The purpose of this report is to request an NFAD by the NDEP. As noted in Section 1, NDEP acknowledges that discrete portions of the Eastside may be issued an NFAD as remedial actions are completed for select environmental media (NDEP 2006). The portion of the Eastside for which the NFAD is being requested based on this HHRA and Closure Report is shown in red on Figure 1. The legal description of the Site is provided in Appendix L.

The HHRA evaluated the potential for adverse human health impacts that may occur as a result of potential exposures to residual concentrations of chemicals in soil, groundwater, and air following remediation, and assessed whether any additional remedial actions are necessary in order to obtain an NFAD from the NDEP to allow development of the Site to proceed. The results of the risk assessment provide risk managers with an understanding of the potential human health risks associated with background conditions and additional risks associated with past Site activities.

For human health protection, BRC's goal is to remediate the Site soils such that they are suitable for unrestricted residential uses. Human health risks are represented by estimated theoretical upper-bound cancer risks and non-cancer hazards derived in accordance with standard USEPA and NDEP methods. If the carcinogenic risks or non-cancer hazards exceed USEPA acceptable levels or NDEP risk goals, then remedial action alternatives must be considered. Findings of the HHRA are intended to support the Site closure process. Major finding of this report are that:

- data collected for use in the HHRA are adequate and usable for their intended purpose;
- all relevant and reasonable exposure scenarios and pathway have been evaluated;
- residential, construction worker, commercial (indoor) worker, and maintenance (outdoor) worker cancer and non-cancer risk estimates are within or below the risk goals for the project; and
- residual levels of chemicals in soil should not pose an unacceptable risk to groundwater quality beneath the Site.

Given the discussion in Section 6.1.2, BRC believes that, following the Tiered approach from the USEPA 2002 Vapor Intrusion Guidance, it has demonstrated that there is no likelihood of adverse vapor intrusion into any indoor spaces that may be constructed in the Mohawk sub-area.

Therefore, based on the results of the HHRA, and the conclusions in this report, exposures to residual levels of chemicals in soil at the Mohawk Sub-Area should not result in adverse health effects to all future receptors, or to groundwater quality beneath the Site. Therefore, BRC concludes that an NFAD for the Mohawk Sub-Area is warranted (see Appendix L for the legal description of the Site).

12.0 REFERENCES

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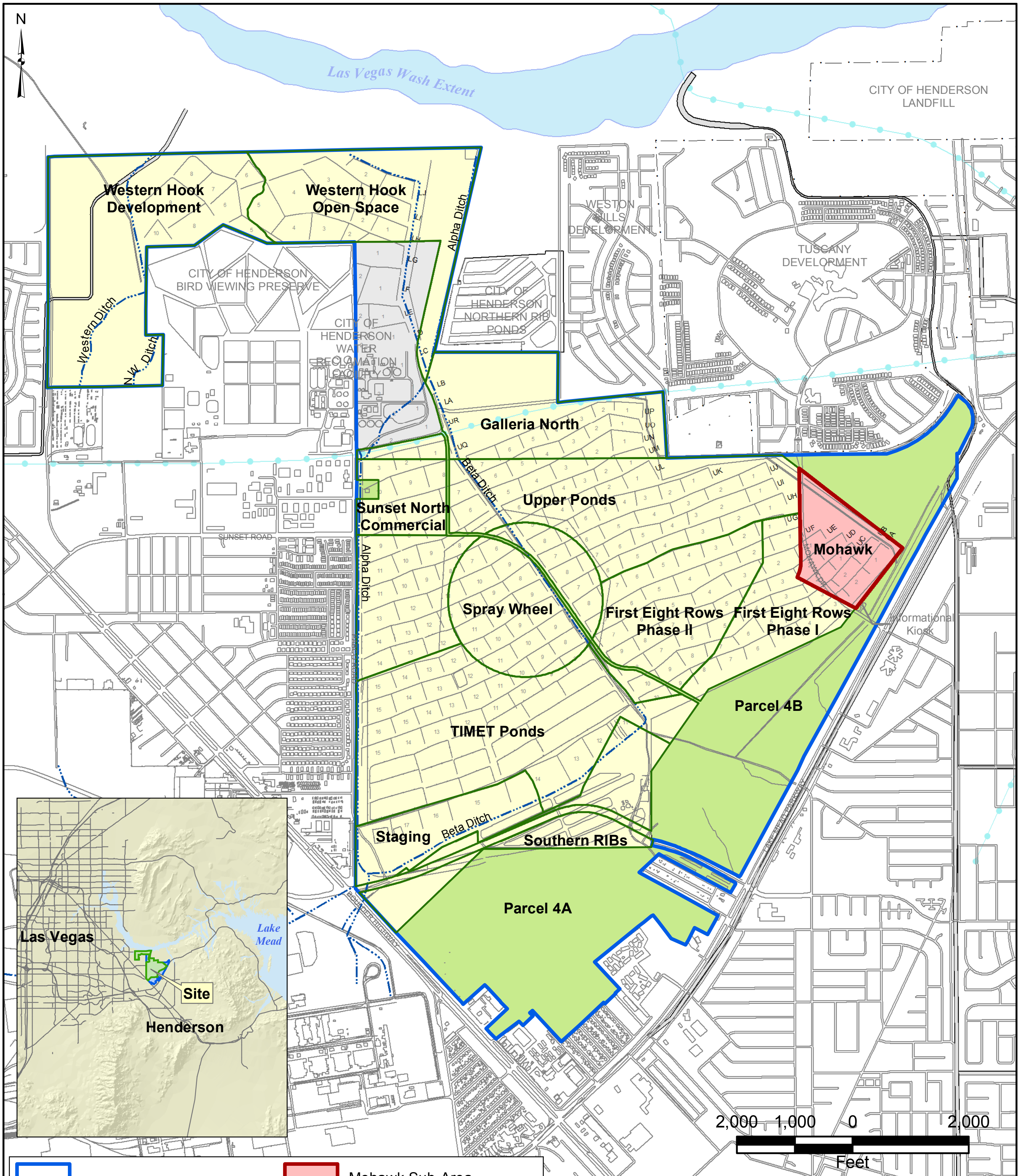
FIGURES



Site AOC3 Boundary
Ditches
Flood Conveyance Channels
Laterals
Mohawk Sub-Area
Eastside Sub-Areas
NFA Areas*
CoH WRF*

*Not part of the Closure Plan for soils.

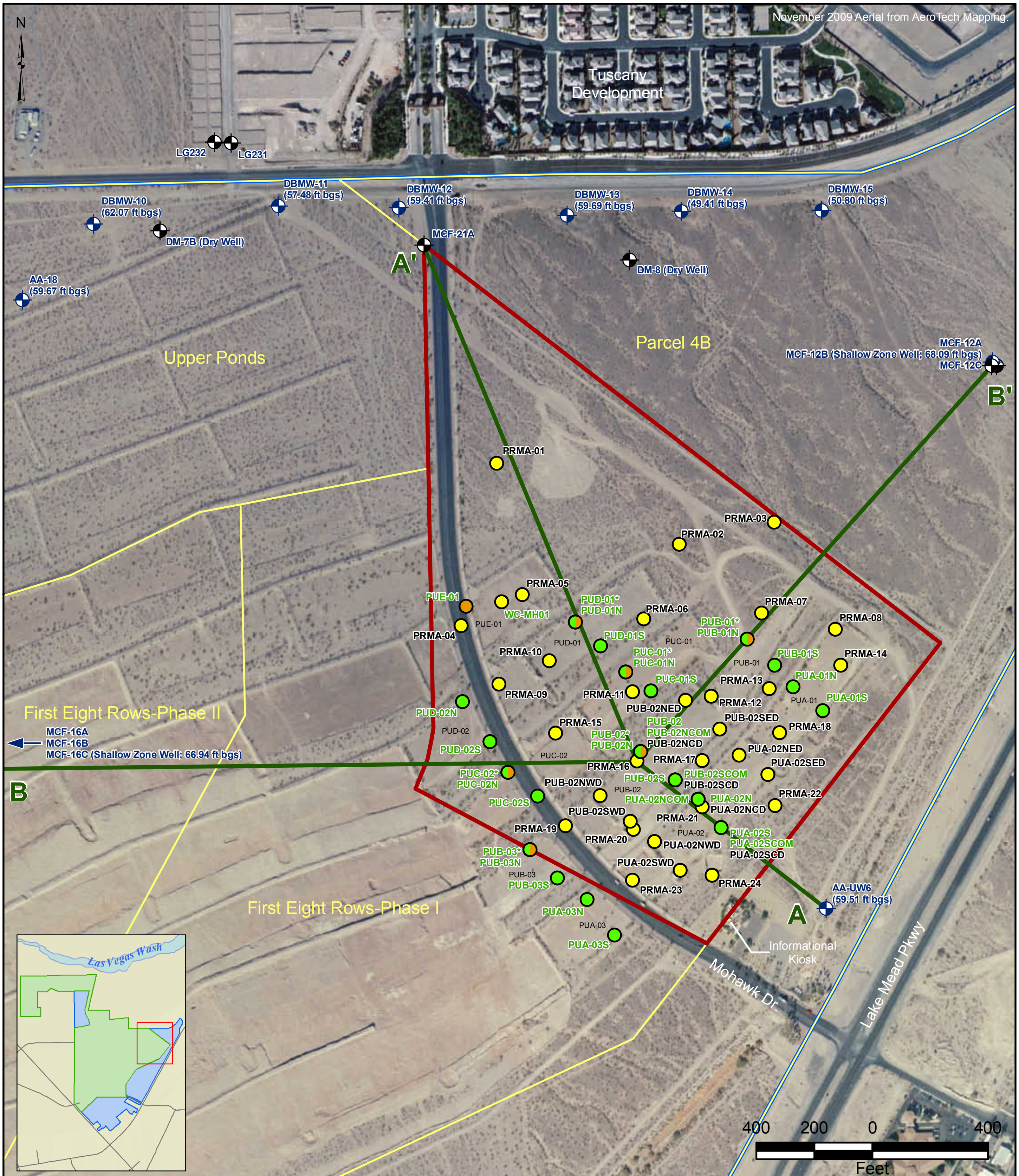
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 1

MOHAWK SUB-AREA LOCATION

Basic Remediation Company

Prepared by MKJ (ERM)	Date 11/18/10	JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURE_1.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Cross-Section Location

Historical Soil Sample Location

- Pre-IRM Location
- 1999/2000 IRM Location
- Post-IRM Location

Monitoring Wells

- Alluvial Wells with Data*
- Other Monitoring Wells

PRMA-19 - Discrete Sample
PUA-03S - Composite Sample

*Depth to shallow zone water measured in August 2009 shown where available.

BMI Common Areas (Eastside)
Clark County, Nevada

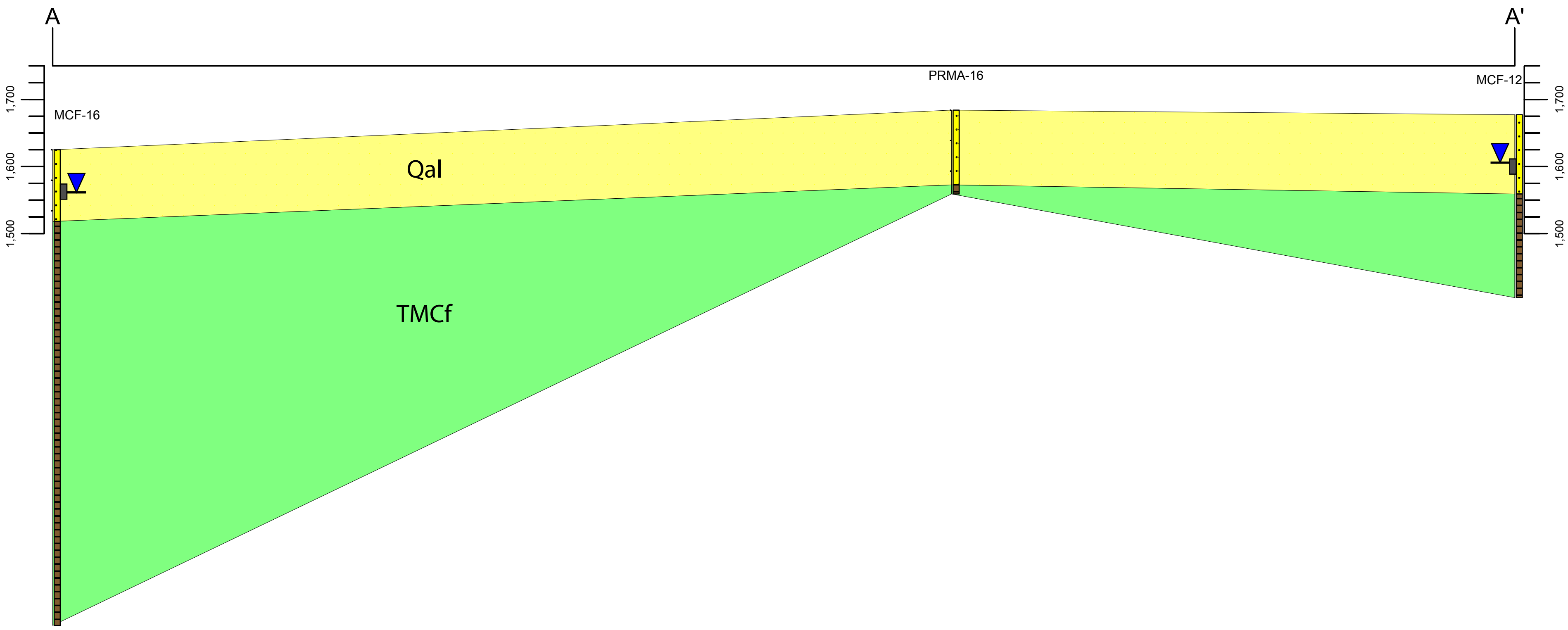
FIGURE 2

SITE PLAN WITH HISTORIC SOIL SAMPLE LOCATIONS AND MONITORING WELLS

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	11/18/10	FILE: GIS/BRC/MOHAWK/FIGURE_2.MXD

Cross-Section A-A'



= Screen Interval
= Shallow Zone Water Level (August 2009)
= Qal = Quaternary alluvium
= UMCf = Upper 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

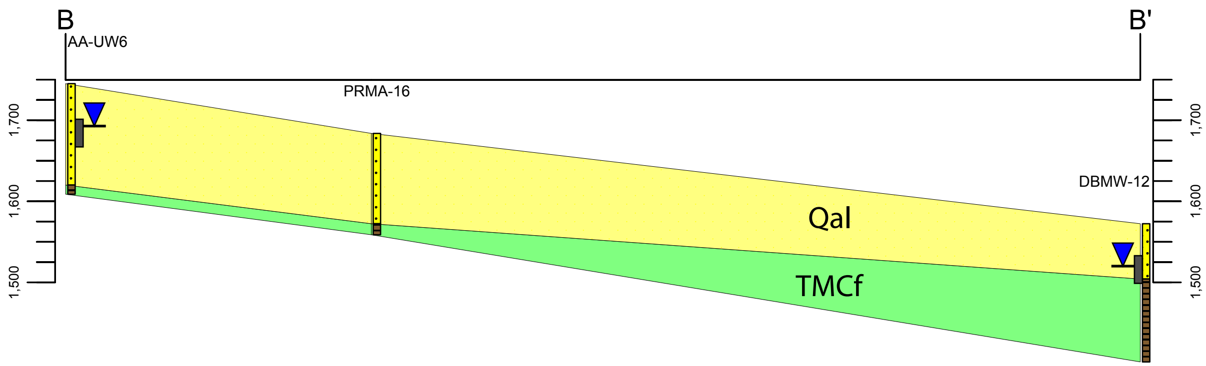
FIGURE 3

MOHAWK SUB-AREA
CROSS-SECTION A-A'

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURE_3.AI

Cross-Section B-B'



= Screen Interval

= Shallow Zone Water Level (August 2009)

= Qal = Quaternary alluvium

= UMCf = Upper 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 4

MOHAWK SUB-AREA
CROSS-SECTION B-B'

Basic Remediation Company

Prepared by MKJ (ERM)	Date 11/18/10	JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURE_4.AI

Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Current Development Plan

- High Density Residential
- Medium Density Residential
- Low Density Residential
- Parks & Trails
- Roads/Parking

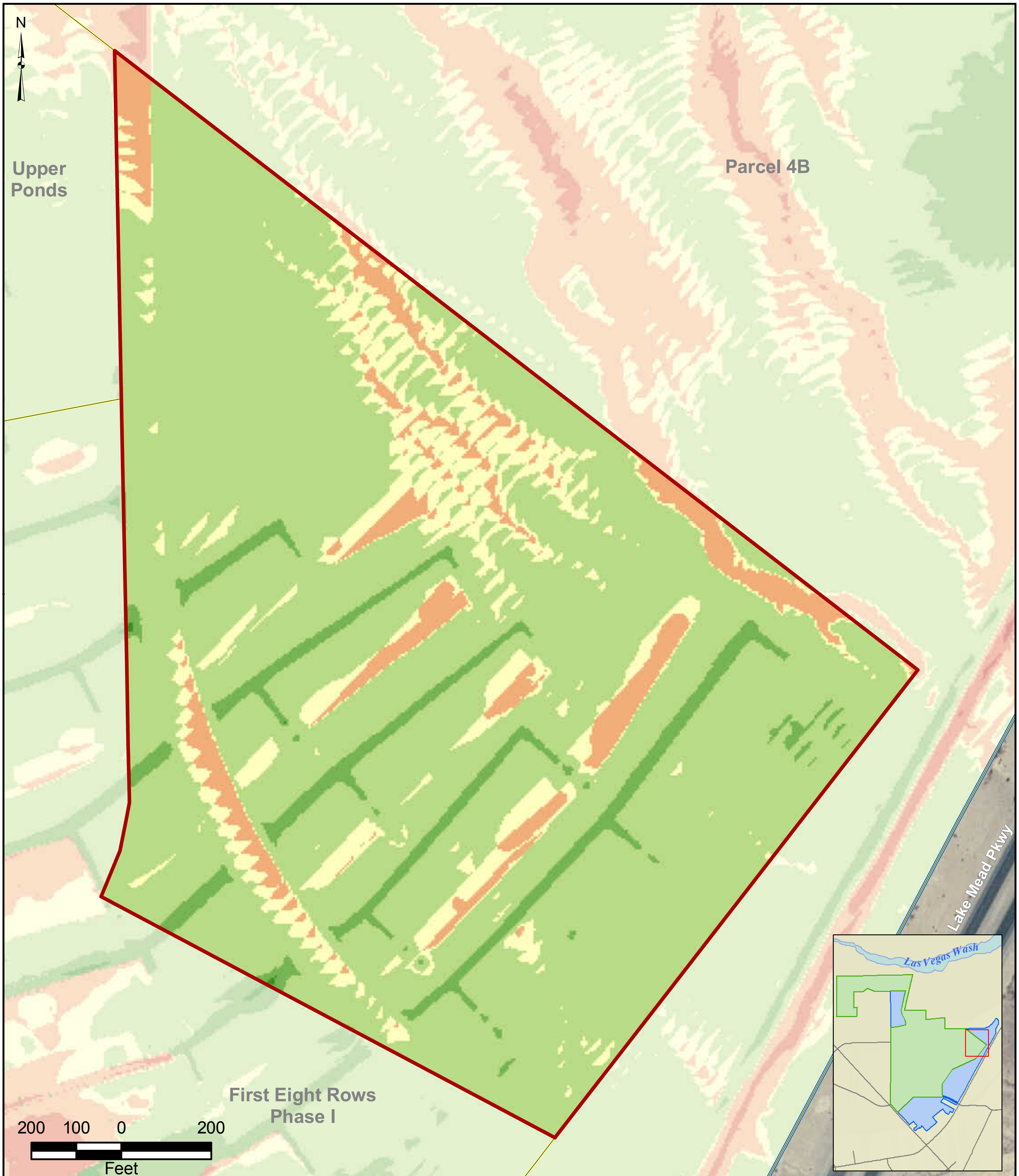
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 5

CURRENT DEVELOPMENT PLAN

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURES_5,6,12.MXD



- Mohawk 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 6

CURRENT GRADING PLAN

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURES_5,6,12.MXD

Source	Primary Inter-media Transfer	Initial Medium of Concern	Secondary Inter-media Transfer	Contact Medium	Exposure Route	Adult and Child Resident	Construction Worker	Indoor Commercial Worker	Outdoor Maintenance Worker	Trespasser/ Recreational User
						Potential Future Human Receptors				
Industrial Processes	Transfer to Ponds via Ditches	Soil	On-site Fugitive Dust Generation	Air	Inhalation*‡	■	■	□	■	■
			Uptake into Plants	Plants	Ingestion*	■	□	□	□	□
				Soil	Ingestion*	■	■	■	■	■
					Dermal Contact	■	■	□	■	■
					External†	■	■	■	■	■
			Volatilization into Indoor/Outdoor Air	Air	Inhalation*	■	■	■	■	■
			Migration to Groundwater	Ground-water	Ingestion*	□	■	□	□	□
					Dermal Contact	□	■	□	□	□
			Volatilization into Indoor/Outdoor Air	Air	Inhalation*	■	■	■	■	■
			Migration to Surface Water	Surface Water	Ingestion	□[1]	□	□	□	□[1]
					Dermal Contact	□[1]	□	□	□	□[1]

□ - Incomplete or insignificant exposure pathway.

■ - Complete or potentially complete exposure pathway.

Note: All potential exposure pathways are shown; however, a particular pathway shown as complete may be incomplete depending on the COPCs evaluated in the human health risk assessment.

[1]Potentially complete exposure pathway following discharge to Las Vegas Wash and Lake Mead. However, the Las Vegas Wash and Lake Mead are not subject to the Phase 3 Settlement Agreement and Administrative Order on Consent (Settlement Agreement). If these issues are found to be of significance NDEP and BRC will address them under separate cover.

*Includes radionuclide exposures.

†Only radionuclide exposures.

‡Includes asbestos exposures.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 7

CONCEPTUAL SITE MODEL DIAGRAM FOR POTENTIAL HUMAN EXPOSURES

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/FIGURE_7.AI

Eastside 3-Acre Random Sampling Grid (Grid ID = "XX,##")

Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Mohawk Sub-Area Soil Samples

- Random Sample Location (17)
- Biased Sample Location with Flux (18)
- Random Sample Location with Flux (1)
- Deep Sample Location (2; to GW)

Note: Deep sample locations analyzed for soil physical parameters.

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 8

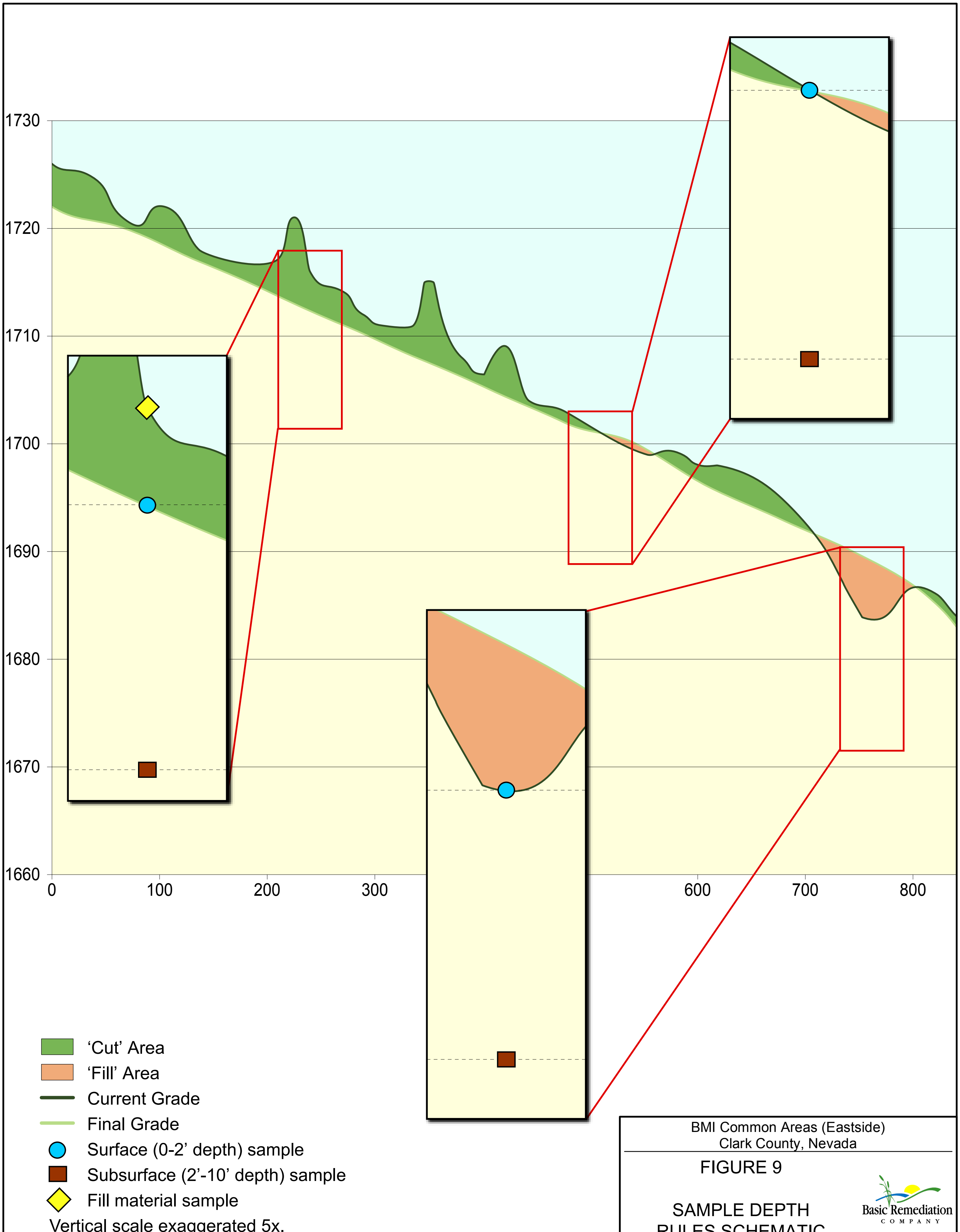
INITIAL SOIL AND SOIL VAPOR FLUX SAMPLING LOCATIONS

Basic Remediation COMPANY

Prepared by MKJ (ERM) ERM

Date 11/18/10

JOB No. 0064276
FILE: GIS/BRC/MOHAWK/FIGURE_8.MXD



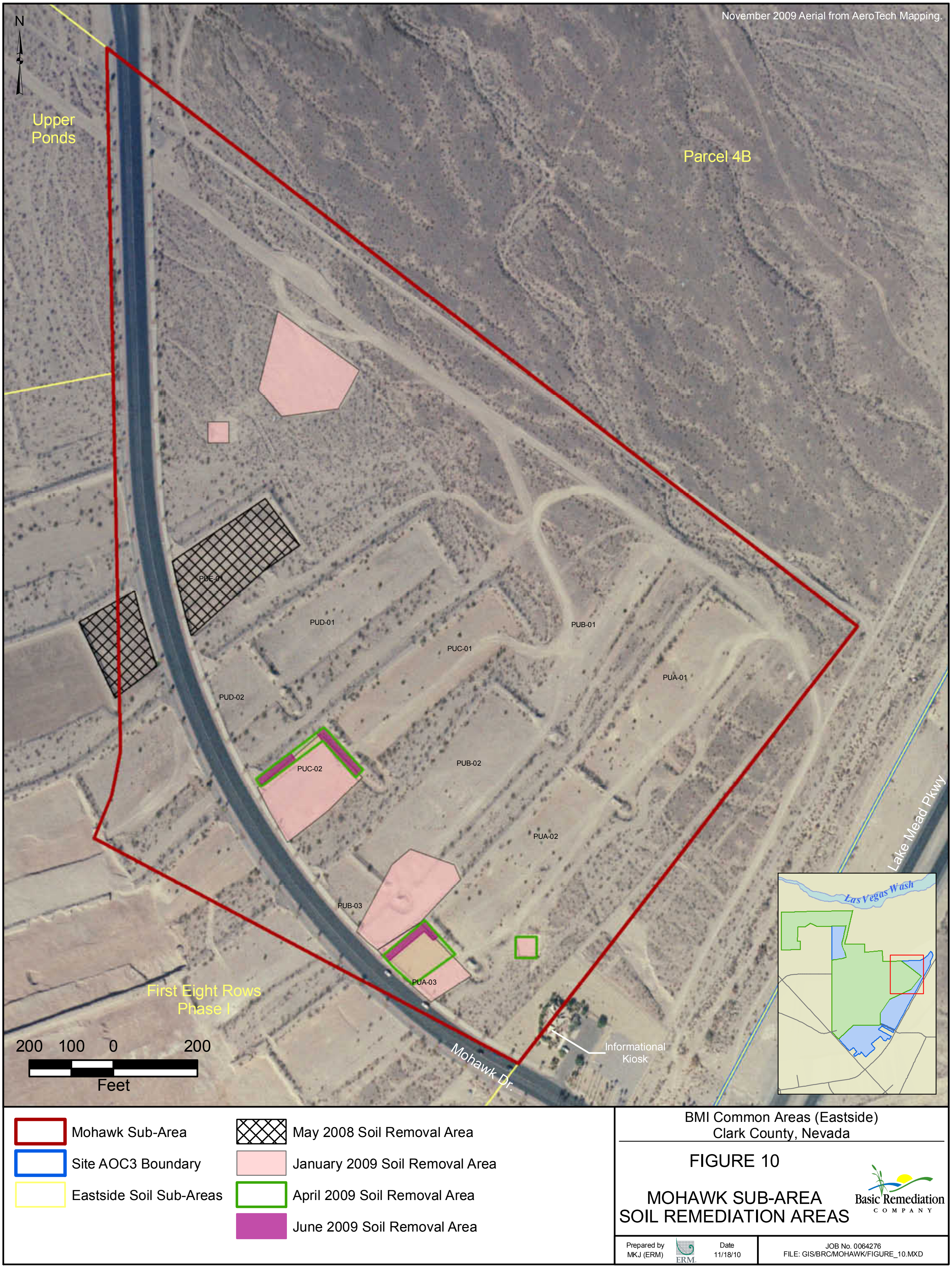
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 9

SAMPLE DEPTH
RULES SCHEMATIC

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURE_9.AI



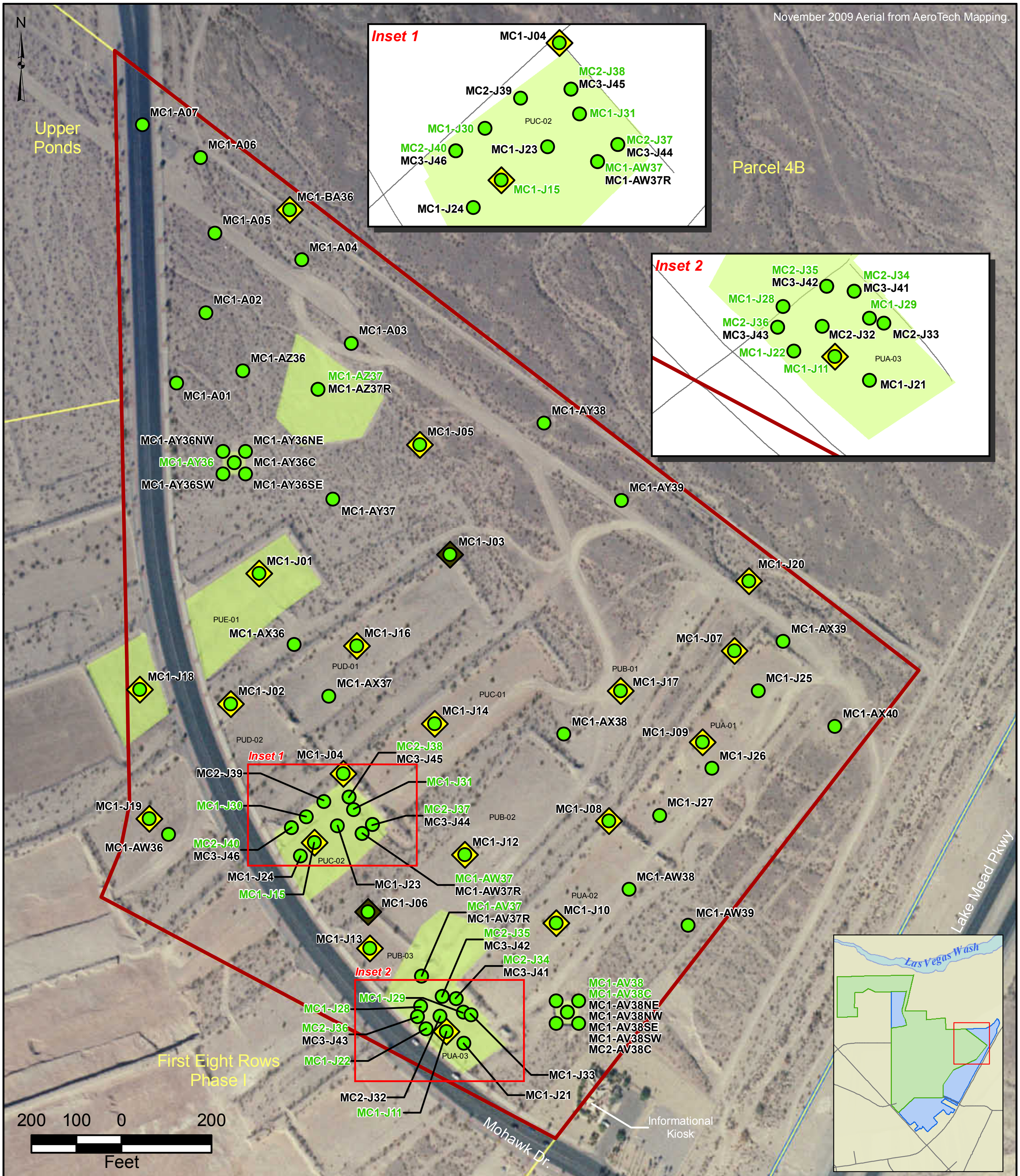
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 10

MOHAWK SUB-AREA
SOIL REMEDIATION AREAS

Basic Remediation COMPANY

Prepared by MKJ (ERM)	ERM	Date 11/18/10	JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURE_10.MXD



Mohawk Sub-Area	Soil Sample Location[1]
Site AOC3 Boundary	Surface Flux Sample Location
Eastside Soil Sub-Areas	Surface Flux Sample Location[2]
Soil Removal Areas	**MC1-AY37** - Existing Sample Location **MC1-AV38** - Scraped Sample Location*

(1) Although soil removal would affect the concentrations of all analytes, confirmatory sampling only analyzed for the constituent suites that triggered the soil removal. Therefore, in the absence of post-scrape data, the pre-scrape data are used for all other analytes in the human health risk assessment (see text).
(2) Two surface flux samples (MC1-J03 and MC1-J06) were inadvertently destroyed by the laboratory before they could be analyzed.

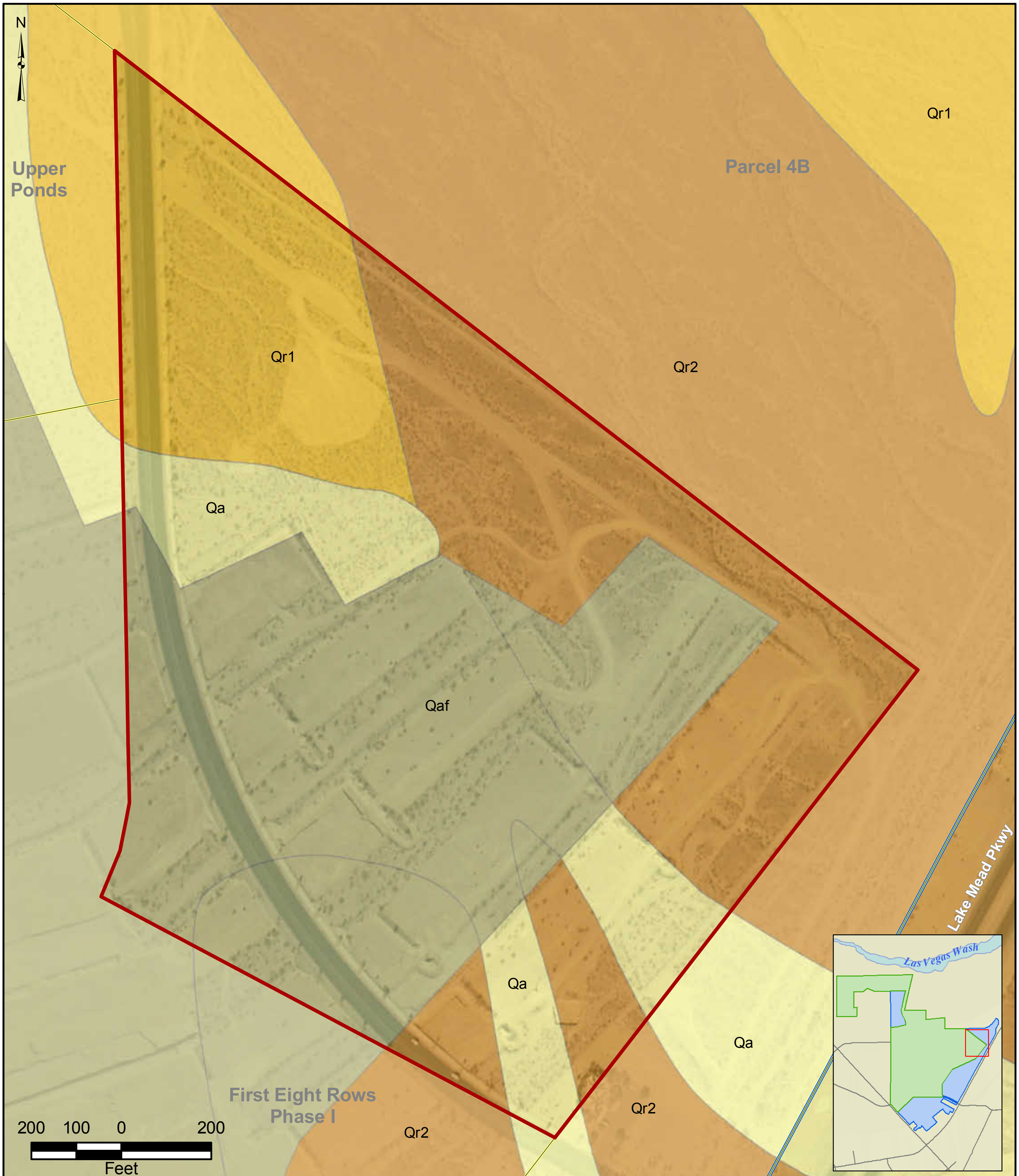
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 11

FINAL SOIL AND SOIL VAPOR FLUX SAMPLING LOCATIONS

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/FIGURE_11.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas

Lithology

Qa-Mixed
Qr1-River
Qr2-River
Qaf-Disturbed

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE 12

MOHAWK SUB-AREA LITHOLOGIES

Basic Remediation COMPANY

Prepared by MKJ (ERM)
ERM
Date 11/18/10
JOB No. 0064276
FILE: GIS/BRC/MOHAWK/FIGURES_5,6,12.MXD

TABLES

TABLE 1
SAMPLE-SPECIFIC COLLECTION DEPTHS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample Location	Sample Type	Grading Plan		Sample Depth 1	Sample Depth 2	Sample Depth 3
MC1-AV37	Random	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AV38	Random	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AW36	Random	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-AW37	Random	--	0	0 (Surface)	10 (Subsurface)	--
MC1-AW38	Random	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-AW39	Random	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-AX36	Random	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AX37	Random	--	0	0 (Surface)	10 (Subsurface)	--
MC1-AX38	Random	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AX39	Random	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AX40	Random	Cut	-5	0 (Fill)	5 (Surface)	15 (Subsurface)
MC1-AY36	Random	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AY37	Random	Cut	-4	0 (Fill)	4 (Surface)	14 (Subsurface)
MC1-AY38	Random	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AY39	Random	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-AZ36	Random	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-AZ37	Random	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-BA36	Random with Flux	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J01	Biased with Flux	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-J02	Biased with Flux	Cut	-8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J03	Biased with Flux(1)	Cut	-6	0 (Fill)	6 (Surface)	16 (Subsurface)
MC1-J04	Biased with Flux	Cut	-8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J05	Biased with Flux	Fill	+1	0 (Surface)	9 (Subsurface)	--
MC1-J06	Biased with Flux(1)	Cut	-8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J07	Biased with Flux	Cut	-8	0 (Fill)	8 (Surface)	18 (Subsurface)
MC1-J08	Biased with Flux	Cut	-9	0 (Fill)	9 (Surface)	19 (Subsurface)
MC1-J09	Biased with Flux	Cut	-2	0 (Fill/Surface)	10 (Subsurface)	--
MC1-J10	Biased with Flux	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-J11	Biased with Flux	Cut	-4	0 (Fill)	4 (Surface)	14 (Subsurface)
MC1-J12	Biased with Flux	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-J13	Biased with Flux	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J14	Biased with Flux	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J15	Biased with Flux	Cut	-1	0 (Fill/Surface)	11 (Subsurface)	--
MC1-J16	Biased with Flux	Cut	-3	0 (Fill)	3 (Surface)	13 (Subsurface)
MC1-J17	Biased with Flux	--	0	0 (Surface)	10 (Subsurface)	--
MC1-J18	Biased with Flux	Cut	-2	0 (Fill/Surface)	12 (Subsurface)	--
MC1-J19	Biased with Flux	Cut	-4	0 (Fill)	4 (Surface)	14 (Subsurface)
MC1-J20	Biased with Flux	Fill	+2	0 (Surface)	10 (Subsurface)	--

Note: Because sample collection was over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet were only sampled at the surface and one post-grade subsurface depth.
Shaded locations (MC1-J10 and MC1-AY36) indicates deep soil samples were collected for physical parameter analyses.
Depths are in feet bgs (current grade).
(1) Note that these two samples were inadvertently destroyed by the laboratory before they could be analyzed.

TABLE 2
SITE-RELATED CHEMICALS LIST AND INITIAL CONFIRMATION SAMPLE ANALYSES AND DEPTHS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Ions	**EPA 300.0**	**EPA 300.0**	Bromide	24959-67-9	✓	✓	(d)
			Chlorate	14866-68-3	✓	✓	(d)
			Chloride	16887-00-6	✓	✓	(d)
			Fluoride	16984-48-8	✓	✓	(d)
			Nitrate (as N)	14797-55-8	✓	✓	(d)
			Nitrite (as N)	14797-65-0	✓	✓	(d)
			Orthophosphate	14265-44-2	✓	✓	(d)
			Sulfate	14808-79-8	✓	✓	(d)
	EPA 314.0	**EPA 314.0**	Perchlorate	14797-73-0	✓	✓	(d)
Chlorinated Compounds	**EPA 551.1**	**EPA 551.1**	Chloral	75-87-6	(e)	(e)	(d)
			Dichloroacetaldehyde	79-02-7	(e)	(e)	(d)
Polychlorinated Dibenzodioxins/ Dibenzofurans	**EPA 8290**	**EPA 8290**	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	✓	(b)	(b)
			1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	✓	(b)	(b)
			1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	✓	(b)	(b)
			1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	✓	(b)	(b)
			1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	✓	(b)	(b)
			1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	✓	(b)	(b)
			1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	✓	(b)	(b)
			1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	✓	(b)	(b)
			1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	✓	(b)	(b)
			1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	✓	(b)	(b)
			1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	✓	(b)	(b)
			1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	✓	(b)	(b)
			1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	✓	(b)	(b)
			2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	✓	(b)	(b)
			2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	✓	(b)	(b)
			2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	✓	(b)	(b)
			2,3,7,8-Tetrachlororodibenzo-p-dioxin	1746-01-6	✓	(b)	(b)
Asbestos	**Elutrator**	**Elutriator/TEM**	Asbestos	1332-21-4	✓	(c)	(c)
General Chemistry Parameters	**EPA 350.1**	**EPA 350.2**	Ammonia (as N)	7664-41-7	✓	✓	(d)
	EPA 9012A	**EPA 9010/9014**	Cyanide (Total)	57-12-5	✓	✓	(d)
	NA	**EPA 9045C**	pH in soil	pH	✓	✓	✓
	EPA 376.1/376.2	**EPA 376.1/376.2**	Sulfide	18496-25-8	✓	✓	(d)
	Mod. EPA 415.1	**Mod. EPA 415.1**	Total inorganic carbon	7440-44-0	✓	✓	(d)
	EPA 351.2	**EPA 351.2**	Total Kjeldahl nitrogen (TKN)	TKN	✓	✓	(d)
	EPA 9060	**EPA 415.1**	Total organic carbon (TOC)	7440-44-0	✓	✓	✓

TABLE 2
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HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Metals	**EPA 3050M**	**EPA 6020/6010B**	Aluminum	7429-90-5	✓	✓	(d)
			Antimony	7440-36-0	✓	✓	(d)
			Arsenic	7440-38-2	✓	✓	(d)
			Barium	7440-39-3	✓	✓	(d)
			Beryllium	7440-41-7	✓	✓	(d)
			Boron	7440-42-8	✓	✓	(d)
			Cadmium	7440-43-9	✓	✓	(d)
			Calcium	7440-70-2	✓	✓	(d)
			Chromium	7440-47-3	✓	✓	(d)
			Cobalt	7440-48-4	✓	✓	(d)
			Copper	7440-50-8	✓	✓	(d)
			Iron	7439-89-6	✓	✓	(d)
			Lead	7439-92-1	✓	✓	(d)
			Lithium	1313-13-9	✓	✓	(d)
			Magnesium	7439-95-4	✓	✓	(d)
			Manganese	7439-96-5	✓	✓	(d)
			Molybdenum	7439-98-7	✓	✓	(d)
			Nickel	7440-02-0	✓	✓	(d)
			Niobium	7440-03-1	(e)	(e)	(d)
			Palladium	7440-05-3	(e)	(e)	(d)
			Phosphorus	7723-14-0	(e)	(e)	(d)
			Platinum	7440-06-4	(e)	(e)	(d)
			Potassium	7440-09-7	✓	✓	(d)
			Selenium	7782-49-2	✓	✓	(d)
			Silicon	7440-21-3	(e)	(e)	(d)
			Silver	7440-22-4	✓	✓	(d)
			Sodium	7440-23-5	✓	✓	(d)
			Strontium	7440-24-6	✓	✓	(d)
			Sulfur	7704-34-9	(e)	(e)	(d)
			Thallium	7440-28-0	✓	✓	(d)
			Tin	7440-31-5	✓	✓	(d)
			Titanium	7440-32-6	✓	✓	(d)
			Tungsten	7440-33-7	✓	✓	(d)
			Uranium	7440-61-1	✓	✓	(d)
			Vanadium	7440-62-2	✓	✓	(d)
			Zinc	7440-66-6	✓	✓	(d)
			Zirconium	7440-67-7	(e)	(e)	(d)

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Metals (continued)	EPA 3060A	EPA 7196A	Chromium (VI)	18540-29-9	✓	✓	(d)
	EPA 7471A	EPA 7470/7471A	Mercury	7439-97-6	✓	✓	(d)
Organophosphorous Pesticides	EPA 8141A	EPA 8141A	Azinphos-ethyl	264-27-19	(a)	(a)	(a)
			Azinphos-methyl	86-50-0	(a)	(a)	(a)
			Carbophenothion	786-19-6	(a)	(a)	(a)
			Chlorpyrifos	2921-88-2	(a)	(a)	(a)
			Coumaphos	56-72-4	(a)	(a)	(a)
			Demeton-O	298-03-3	(a)	(a)	(a)
			Demeton-S	126-75-0	(a)	(a)	(a)
			Diazinon	333-41-5	(a)	(a)	(a)
			Dichlorvos	62-73-7	(a)	(a)	(a)
			Dimethoate	60-51-5	(a)	(a)	(a)
			Disulfoton	298-04-4	(a)	(a)	(a)
			EPN	2104-64-5	(a)	(a)	(a)
			Ethoprop	13194-48-4	(a)	(a)	(a)
			Ethyl parathion	56-38-2	(a)	(a)	(a)
			Fampphur	52-85-7	(a)	(a)	(a)
			Fenthion	55-38-9	(a)	(a)	(a)
			Malathion	121-75-5	(a)	(a)	(a)
			Methyl carbophenothion	953-17-3	(a)	(a)	(a)
			Methyl parathion	298-00-0	(a)	(a)	(a)
			Mevinphos	7786-34-7	(a)	(a)	(a)
			Naled	300-76-5	(a)	(a)	(a)
			O,O,O-Triethyl phosphorothioate (TEPP)	297-97-2	(a)	(a)	(a)
			Phorate	298-02-2	(a)	(a)	(a)
			Phosmet	732-11-6	(a)	(a)	(a)
			Ronnel	299-84-3	(a)	(a)	(a)
			Stirophos (Tetrachlorovinphos)	22248-79-9	(a)	(a)	(a)
			Sulfotep	3689-24-5	(a)	(a)	(a)
Chlorinated Herbicides	EPA 8151A	EPA 8151A	2,4,5-T	93-76-5	(a)	(a)	(a)
			2,4,5-TP (Silvex)	93-72-1	(a)	(a)	(a)
			2,4-D	94-75-7	(a)	(a)	(a)
			2,4-DB	94-82-6	(a)	(a)	(a)
			Dalapon	75-99-0	(a)	(a)	(a)
			Dicamba	1918-00-9	(a)	(a)	(a)

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Chlorinated Herbicides (continued)	**EPA 8151A**	**EPA 8151A**	Dichloroprop	120-36-5	(a)	(a)	(a)
			Dinoseb	88-85-7	(a)	(a)	(a)
			MCPA	94-74-6	(a)	(a)	(a)
			MCPP	93-65-2	(a)	(a)	(a)
Organic Acids	**HPLC**	**HPLC**	4-Chlorobenzene sulfonic acid	98-66-8	(a)	(a)	(a)
			Benzenesulfonic acid	98-11-3	(a)	(a)	(a)
			O,O-Diethylphosphorodithioic acid	298-06-6	(a)	(a)	(a)
			O,O-Dimethylphosphorodithioic acid	756-80-9	(a)	(a)	(a)
Nonhalogenated Organics	**EPA 8015B**	**EPA 8015B**	Ethylene glycol	107-21-1	(a)	(a)	(a)
			Ethylene glycol monobutyl ether	111-76-2	(a)	(a)	(a)
			Methanol	67-56-1	(a)	(a)	(a)
			Propylene glycol	57-55-6	(a)	(a)	(a)
Organochlorine Pesticides	**EPA 3550B**	**EPA 8081A**	2,4-DDD	53-19-0	✓	✓	(d)
			2,4-DDE	3424-82-6	✓	✓	(d)
			4,4-DDD	72-54-8	✓	✓	(d)
			4,4-DDE	72-55-9	✓	✓	(d)
			4,4-DDT	50-29-3	✓	✓	(d)
			Aldrin	309-00-2	✓	✓	(d)
			alpha-BHC	319-84-6	✓	✓	(d)
			alpha-Chlordane	5103-71-9	✓	✓	(d)
			beta-BHC	319-85-7	✓	✓	(d)
			Chlordane	57-74-9	✓	✓	(d)
			delta-BHC	319-86-8	✓	✓	(d)
			Dieldrin	60-57-1	✓	✓	(d)
			Endosulfan I	959-98-8	✓	✓	(d)
			Endosulfan II	33213-65-9	✓	✓	(d)
			Endosulfan sulfate	1031-07-8	✓	✓	(d)
			Endrin	72-20-8	✓	✓	(d)
			Endrin aldehyde	7421-93-4	✓	✓	(d)
			Endrin ketone	53494-70-5	✓	✓	(d)
			gamma-BHC (Lindane)	58-89-9	✓	✓	(d)
			gamma-Chlordane	5103-74-2	✓	✓	(d)
			Heptachlor	76-44-8	✓	✓	(d)
			Heptachlor epoxide	1024-57-3	✓	✓	(d)
			Methoxychlor	72-43-5	✓	✓	(d)
			Toxaphene	8001-35-2	✓	✓	(d)

TABLE 2
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BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Polychlorinated Biphenyls	EPA 3510C	EPA 8082	Aroclor 1016	12674-11-2	✓	(b)	(b)
			Aroclor 1221	11104-28-2	✓	(b)	(b)
			Aroclor 1232	11141-16-5	✓	(b)	(b)
			Aroclor 1242	53469-21-9	✓	(b)	(b)
			Aroclor 1248	12672-29-6	✓	(b)	(b)
			Aroclor 1254	11097-69-1	✓	(b)	(b)
			Aroclor 1260	11096-82-5	✓	(b)	(b)
		EPA 1668	PCB-77	32598-13-3	✓	(b)	(b)
			PCB-81	70362-50-4	✓	(b)	(b)
			PCB-105	32598-14-4	✓	(b)	(b)
			PCB-114	74472-37-0	✓	(b)	(b)
			PCB-118	31508-00-6	✓	(b)	(b)
			PCB-123	65510-44-3	✓	(b)	(b)
			PCB-126	57465-28-8	✓	(b)	(b)
			PCB-156	38380-08-4	✓	(b)	(b)
			PCB-157	69782-90-7	✓	(b)	(b)
			PCB-167	52663-72-6	✓	(b)	(b)
			PCB-169	32774-16-6	✓	(b)	(b)
			PCB-189	39635-31-9	✓	(b)	(b)
			PCB-209	2051-24-3	✓	(b)	(b)
Polynuclear Aromatic Hydrocarbons	EPA 3550	EPA 8310 or EPA 8270SIM	Acenaphthene	83-32-9	✓	✓	(d)
			Acenaphthylene	208-96-8	✓	✓	(d)
			Anthracene	120-12-7	✓	✓	(d)
			Benzo(a)anthracene	56-55-3	✓	✓	(d)
			Benzo(a)pyrene	50-32-8	✓	✓	(d)
			Benzo(b)fluoranthene	205-99-2	✓	✓	(d)
			Benzo(g,h,i)perylene	191-24-2	✓	✓	(d)
			Benzo(k)fluoranthene	207-08-9	✓	✓	(d)
			Chrysene	218-01-9	✓	✓	(d)
			Dibenzo(a,h)anthracene	53-70-3	✓	✓	(d)
			Indeno(1,2,3-cd)pyrene	193-39-5	✓	✓	(d)
			Phenanthrene	85-01-8	✓	✓	(d)
			Pyrene	129-00-0	✓	✓	(d)
Radionuclides	HASL 3003	EPA 903.0 / 903.1	Radium-226	13982-63-3	✓	✓	(d)
		EPA 904.0	Radium-228	15262-20-1	✓	✓	(d)

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Radionuclides (continued)	HASL 300 (Total Dissolution)	HASL A-01-R	Thorium-228	7440-29-1	✓	✓	(d)
			Thorium-230	14274-82-9	✓	✓	(d)
			Thorium-232	14269-63-7	✓	✓	(d)
	HASL 300 (Total Dissolution)		Uranium-233/234	13966-29-5	✓	✓	(d)
			Uranium-235/236	15117-96-1	✓	✓	(d)
			Uranium-238	7440-61-1	✓	✓	(d)
Aldehydes	EPA 8315A	EPA 8315A	Acetaldehyde	75-07-0	✓	✓	(d)
			Chloroacetaldehyde	107-20-0	(e)	(e)	(d)
			Dichloroacetaldehyde	79-02-7	(e)	(e)	(d)
			Formaldehyde	50-00-0	✓	✓	(d)
			Trichloroacetaldehyde	75-87-6	(e)	(e)	(d)
Semivolatile Organic Compounds	EPA 3550B	EPA 8270C	1,2,4,5-Tetrachlorobenzene	95-94-3	✓	✓	(d)
			1,2-Diphenylhydrazine	122-66-7	✓	✓	(d)
			1,4-Dioxane	123-91-1	✓	✓	(d)
			2,2'/4,4'-Dichlorobenzil	3457-46-3	✓	✓	(d)
			2,4,5-Trichlorophenol	95-95-4	✓	✓	(d)
			2,4,6-Trichlorophenol	88-06-2	✓	✓	(d)
			2,4-Dichlorophenol	120-83-2	✓	✓	(d)
			2,4-Dimethylphenol	105-67-9	✓	✓	(d)
			2,4-Dinitrophenol	51-28-5	✓	✓	(d)
			2,4-Dinitrotoluene	121-14-2	✓	✓	(d)
			2,6-Dinitrotoluene	606-20-2	✓	✓	(d)
			2-Chloronaphthalene	91-58-7	✓	✓	(d)
			2-Chlorophenol	95-57-8	✓	✓	(d)
			2-Methylnaphthalene	91-57-6	✓	✓	(d)
			2-Nitroaniline	88-74-4	✓	✓	(d)
			2-Nitrophenol	88-75-5	✓	✓	(d)
			3,3-Dichlorobenzidine	91-94-1	✓	✓	(d)
			3-Nitroaniline	99-09-2	✓	✓	(d)
			4,4'-Dichlorobenzil	3457-46-3	✓	✓	(d)
			4-Bromophenyl phenyl ether	101-55-3	✓	✓	(d)
			4-Chloro-3-methylphenol	59-50-7	✓	✓	(d)
			4-Chlorophenyl phenyl ether	7005-72-3	✓	✓	(d)
			4-Chlorothioanisole	123-09-1	✓	✓	(d)
			4-Chlorothiophenol	106-54-7	✓	✓	(d)

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Semivolatile Organic Compounds (continued)	EPA 3550B	EPA 8270C	4-Nitroaniline	100-01-6	✓	✓	(d)
			4-Nitrophenol	100-02-7	✓	✓	(d)
			Acetophenone	98-86-2	✓	✓	(d)
			Aniline	62-53-3	✓	✓	(d)
			Azobenzene	103-33-3	✓	✓	(d)
			Benzoic acid	65-85-0	✓	✓	(d)
			Benzyl alcohol	100-51-6	✓	✓	(d)
			bis(2-Chloroethoxy)methane	111-91-1	✓	✓	(d)
			bis(2-Chloroethyl) ether	111-44-4	✓	✓	(d)
			bis(2-Chloroisopropyl) ether	108-60-1	✓	✓	(d)
			bis(2-Ethylhexyl) phthalate	117-81-7	✓	✓	(d)
			bis(Chloromethyl) ether	542-88-1	✓	✓	(d)
			bis(p-Chlorophenyl) sulfone	80-07-9	✓	✓	(d)
			bis(p-Chlorophenyl)disulfide	1142-19-4	✓	✓	(d)
			Butylbenzyl phthalate	85-68-7	✓	✓	(d)
			Carbazole	86-74-8	✓	✓	(d)
			Dibenzofuran	132-64-9	✓	✓	(d)
			Dichloromethyl ether	542-88-1	✓	✓	(d)
			Diethyl phthalate	84-66-2	✓	✓	(d)
			Dimethyl phthalate	131-11-3	✓	✓	(d)
			Di-n-butyl phthalate	84-74-2	✓	✓	(d)
			Di-n-octyl phthalate	117-84-0	✓	✓	(d)
			Diphenyl disulfide	882-33-7	✓	✓	(d)
			Diphenyl sulfide	139-66-2	✓	✓	(d)
			Diphenyl sulfone	127-63-9	✓	✓	(d)
			Fluoranthene	206-44-0	✓	✓	(d)
			Fluorene	86-73-7	✓	✓	(d)
			Hexachlorobenzene	118-74-1	✓	✓	(d)
			Hexachlorobutadiene	87-68-3	✓	✓	(d)
			Hexachlorocyclopentadiene	77-47-4	✓	✓	(d)
			Hexachloroethane	67-72-1	✓	✓	(d)
			Hydroxymethyl phthalimide	118-29-6	✓	✓	(d)
			Isophorone	78-59-1	✓	✓	(d)
			m,p-Cresol	106-44-5	✓	✓	(d)
			Naphthalene	91-20-3	✓	✓	(d)
			Nitrobenzene	98-95-3	✓	✓	(d)

TABLE 2
SITE-RELATED CHEMICALS LIST AND INITIAL CONFIRMATION SAMPLE ANALYSES AND DEPTHS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Semivolatile Organic Compounds (continued)	EPA 3550B	EPA 8270C	N-nitrosodi-n-propylamine	621-64-7	✓	✓	(d)
			N-nitrosodiphenylamine	86-30-6	✓	✓	(d)
			o-Cresol	95-48-7	✓	✓	(d)
			Octachlorostyrene	29082-74-4	✓	✓	(d)
			p-Chloroaniline (4-Chloroaniline)	106-47-8	✓	✓	(d)
			p-Chlorobenzenethiol	106-54-7	✓	✓	(d)
			Pentachlorobenzene	608-93-5	✓	✓	(d)
			Pentachlorophenol	87-86-5	✓	✓	(d)
			Phenol	108-95-2	✓	✓	(d)
			Phthalic acid	88-99-3	✓	✓	(d)
			Pyridine	110-86-1	✓	✓	(d)
			Thiophenol	108-98-5	✓	✓	(d)
			Tentatively Identified Compounds (TICs)		✓	✓	(d)
Volatile Organic Compounds	EPA 5030B/ EPA 5035	EPA 8260B	1,1,1,2-Tetrachloroethane	630-20-6	✓	✓	(d)
			1,1,1-Trichloroethane	71-55-6	✓	✓	(d)
			1,1,2,2-Tetrachloroethane	79-34-5	✓	✓	(d)
			1,1,2-Trichloroethane	79-00-5	✓	✓	(d)
			1,1-Dichloroethane	75-34-3	✓	✓	(d)
			1,1-Dichloroethene	75-35-4	✓	✓	(d)
			1,1-Dichloropropene	563-58-6	✓	✓	(d)
			1,2,3-Trichlorobenzene	87-61-6	✓	✓	(d)
			1,2,3-Trichloropropane	96-18-4	✓	✓	(d)
			1,2,4-Trichlorobenzene	120-82-1	✓	✓	(d)
			1,2,4-Trimethylbenzene	95-63-6	✓	✓	(d)
			1,2-Dichlorobenzene	95-50-1	✓	✓	(d)
			1,2-Dichloroethane	107-06-2	✓	✓	(d)
			1,2-Dichloroethene	540-59-0	✓	✓	(d)
			1,2-Dichloropropane	78-87-5	✓	✓	(d)
			1,3,5-Trichlorobenzene	108-70-3	✓	✓	(d)
			1,3,5-Trimethylbenzene	108-67-8	✓	✓	(d)
			1,3-Dichlorobenzene	541-73-1	✓	✓	(d)
			1,3-Dichloropropene	542-75-6	✓	✓	(d)
			1,3-Dichloropropane	142-28-9	✓	✓	(d)
			1,4-Dichlorobenzene	106-46-7	✓	✓	(d)
			2,2-Dichloropropane	594-20-7	✓	✓	(d)
			2,2-Dimethylpentane	590-35-2	✓	✓	(d)
			2,2,3-Trimethylbutane	464-06-2	✓	✓	(d)

TABLE 2
SITE-RELATED CHEMICALS LIST AND INITIAL CONFIRMATION SAMPLE ANALYSES AND DEPTHS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Volatile Organic Compounds (continued)	**EPA 5030B/ EPA 5035**	**EPA 8260B**	2,3-Dimethylpentane	565-59-3	✓	✓	(d)
			2,4-Dimethylpentane	108-08-7	✓	✓	(d)
			2-Chlorotoluene	95-49-8	✓	✓	(d)
			2-Hexanone	591-78-6	✓	✓	(d)
			2-Methylhexane	591-76-4	✓	✓	(d)
			2-Nitropropane	79-46-9	✓	✓	(d)
			3,3-Dimethylpentane	562-49-2	✓	✓	(d)
			3-Ethylpentane	617-78-7	✓	✓	(d)
			3-Methylhexane	589-34-4	✓	✓	(d)
			4-Chlorobenzene	108-90-7	✓	✓	(d)
			4-Chlorotoluene	106-43-4	✓	✓	(d)
			4-Methyl-2-pentanone (MIBK)	108-10-1	✓	✓	(d)
			Acetone	67-64-1	✓	✓	(d)
			Acetonitrile	75-05-8	✓	✓	(d)
			Benzene	71-43-2	✓	✓	(d)
			Bromobenzene	108-86-1	✓	✓	(d)
			Bromodichloromethane	75-27-4	✓	✓	(d)
			Bromoform	75-25-2	✓	✓	(d)
			Bromomethane	74-83-9	✓	✓	(d)
			Carbon disulfide	75-15-0	✓	✓	(d)
			Carbon tetrachloride	56-23-5	✓	✓	(d)
			Chlorobenzene	108-90-7	✓	✓	(d)
			Chlorobromomethane	74-97-5	✓	✓	(d)
			Chlorodibromomethane	124-48-1	✓	✓	(d)
			Chloroethane	75-00-3	✓	✓	(d)
			Chloroform	67-66-3	✓	✓	(d)
			Chloromethane	74-87-3	✓	✓	(d)
			cis-1,2-Dichloroethene	156-59-2	✓	✓	(d)
			cis-1,3-Dichloropropene	10061-01-5	✓	✓	(d)
			Cymene (Isopropyltoluene)	99-87-6	✓	✓	(d)
			Dibromochloroethane	73506-94-2	✓	✓	(d)
			Dibromochloromethane	124-48-1	✓	✓	(d)
			Dibromochloropropane	96-12-8	✓	✓	(d)
			Dibromomethane	74-95-3	✓	✓	(d)
			Dichloromethane (Methylene chloride)	75-09-2	✓	✓	(d)
			Dimethyldisulfide	624-92-0	✓	✓	(d)
			Ethanol	64-17-5	✓	✓	(d)

TABLE 2
SITE-RELATED CHEMICALS LIST AND INITIAL CONFIRMATION SAMPLE ANALYSES AND DEPTHS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Volatile Organic Compounds (continued)	EPA 5030B/ EPA 5035	EPA 8260B	Ethylbenzene	100-41-4	✓	✓	(d)
			Freon-11	75-69-4	✓	✓	(d)
			Freon-113	76-13-1	✓	✓	(d)
			Freon-12	75-71-8	✓	✓	(d)
			Heptane	142-82-5	✓	✓	(d)
			Isoheptane	31394-54-4	✓	✓	(d)
			Isopropylbenzene	98-82-8	✓	✓	(d)
			m,p-Xylene	mp-XYL	✓	✓	(d)
			Methyl ethyl ketone (2-Butanone)	78-93-3	✓	✓	(d)
			Methyl iodide	74-88-4	✓	✓	(d)
			MTBE (Methyl tert-butyl ether)	1634-04-4	✓	✓	(d)
			n-Butyl benzene	104-51-8	✓	✓	(d)
			n-Propylbenzene	103-65-1	✓	✓	(d)
			Nonanal	124-19-6	✓	✓	(d)
			o-Xylene	95-47-6	✓	✓	(d)
			sec-Butylbenzene	135-98-8	✓	✓	(d)
			Styrene	100-42-5	✓	✓	(d)
			tert-Butyl benzene	98-06-6	✓	✓	(d)
			Tetrachloroethene	127-18-4	✓	✓	(d)
			Toluene	108-88-3	✓	✓	(d)
			trans-1,2-Dichloroethene	156-60-5	✓	✓	(d)
			trans-1,3-Dichloropropene	10061-02-6	✓	✓	(d)
			Trichloroethene	79-01-6	✓	✓	(d)
			Vinyl acetate	108-05-4	✓	✓	(d)
			Vinyl chloride	75-01-4	✓	✓	(d)
			Xylenes (total)	1330-20-7	✓	✓	(d)
			Tentatively Identified Compounds (TICs)		✓	✓	(d)
Flashpoint	NA	EPA 1010	Flammables	NA	(a)	(a)	(a)
Total Petroleum Hydrocarbons	EPA 3550	EPA 8015	Diesel	64742-46-7	(a)	(a)	(a)
	EPA 3550		Gasoline	8006-61-9	(a)	(a)	(a)
	EPA 1664A		Grease	68153-81-1	(a)	(a)	(a)
			Mineral Spirits	NA	(a)	(a)	(a)
White Phosphorus	EPA 7580M	EPA 7580M	White phosphorus	12185-10-3	(a)	(a)	(a)
Methyl Mercury	EPA 1630	EPA 1630	Methyl mercury	22967-92-6	(a)	(a)	(a)

TABLE 2
SITE-RELATED CHEMICALS LIST AND INITIAL CONFIRMATION SAMPLE ANALYSES AND DEPTHS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Preparation Method	Analytical Method	Compound List	CAS Number	Sample Depth (from Table 1)		
					Depth 1	Depth 2/3	Deep
Soil Physical Parameters	NA	ASTM D2937/ MOSA1Ch .13	Dry bulk density	NA	(d)	✓	✓
		ASTM D2435/ MOSA1Ch .18	Total porosity	NA	(d)	✓	✓
		ASTM D5084	Soil permeability/saturated hydraulic cond.	NA	(d)	✓	✓
		ASTM D854	Specific gravity of soils	NA	(d)	✓	✓
		SW846 Method 9081	Cation exchange capacity	NA	(d)	✓	✓
		ASTM D2216/D4643/D2974	Volumetric water content	NA	(d)	✓	✓
		ASTM D422	Grain size analysis by sieve and hydrometer	NA	(d)	✓	✓
		EPA 415.1/ASTM 2947	Fractional organic carbon content	NA	(d)	✓	✓

Notes:

Laboratory limits are subject to matrix interferences and may not always be achieved in all samples.

The laboratory was instructed to report the top 25 Tentatively Identified Compounds (TICs) under method 8260B and 8270C.

NA = Not applicable.

a - Removed based on rationale provided in the text.

b - Dioxins/furans and PCBs analyzed for in fill and surface soil samples only.

c - Asbestos analyzed for in current grade surface soil samples only.

d - Soil physical parameters collected from at-depth samples only; from one sample location (see Table 1).

e - Removed based on Revisions to the Analyte List Technical Memorandum approved by NDEP on 10/16/2008. Note this was done subsequent to the initial confirmation sampling conducted in June 2008.

TABLE 3
FINAL CONFIRMATION SOIL SAMPLE LOCATIONS AND ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample Location	Sample Depth	Sample Type	Scraped?	Asbestos	Aldehydes	Dioxins	Gen Chem	Metals	OCPs
MC1-A01	0	Supplement		X					
MC1-A02	0	Supplement		X					
MC1-A03	0	Supplement		X					
MC1-A04	0	Supplement		X					
MC1-A05	0	Supplement		X					
MC1-A06	0	Supplement		X					
MC1-A07	0	Supplement		X					
MC1-AV37	0	Initial	YES	X	X	X	X	X	X
MC1-AV37	11	Initial			X		X	X	X
MC1-AV37R	0	Confirm		X					
MC1-AV38	0	Initial	YES	X	X	X	X	X	X
MC1-AV38	11	Initial			X		X	X	X
MC1-AV38C	0	Confirm	YES			X		X	
MC1-AV38NE	0	Confirm				X			
MC1-AV38NW	0	Confirm				X			
MC1-AV38SE	0	Confirm				X			
MC1-AV38SW	0	Confirm				X			
MC2-AV38C	0	Confirm						X	
MC1-AW36	0	Initial		X	X	X	X	X	X
MC1-AW36	12	Initial			X		X	X	X
MC1-AW37	0	Initial	YES	X	X	X	X	X	X
MC1-AW37	10	Initial			X		X	X	X
MC1-AW37R	0	Confirm		X					
MC1-AW38	0	Initial		X	X	X	X	X	X
MC1-AW38	12	Initial			X		X	X	X
MC1-AW39	0	Initial		X	X	X	X	X	X
MC1-AW39	12	Initial			X		X	X	X
MC1-AX36	0	Initial		X	X	X	X	X	X
MC1-AX36	3	Initial			X		X	X	X
MC1-AX36	13	Initial			X	X	X	X	X
MC1-AX37	0	Initial		X	X	X	X	X	X
MC1-AX37	10	Initial			X		X	X	X
MC1-AX38	0	Initial		X	X	X	X	X	X
MC1-AX38	11	Initial			X		X	X	X
MC1-AX39	0	Initial		X	X	X	X	X	X
MC1-AX39	3	Initial			X	X	X	X	X
MC1-AX39	13	Initial			X		X	X	X
MC1-AX40	0	Initial		X	X	X	X	X	X
MC1-AX40	5	Initial			X	X	X	X	X
MC1-AX40	15	Initial			X		X	X	X
MC1-AY36	0	Initial	YES	X	X	X	X	X	X
MC1-AY36	3	Initial			X	X	X	X	X
MC1-AY36	13	Initial			X		X	X	X
MC1-AY36C	0	Confirm				X		X	
MC1-AY36NE	0	Confirm				X			
MC1-AY36NW	0	Confirm				X			
MC1-AY36SE	0	Confirm				X			
MC1-AY36SW	0	Confirm				X			
MC1-AY37	0	Initial		X	X	X	X	X	X
MC1-AY37	4	Initial			X	X	X	X	X

TABLE 3
FINAL CONFIRMATION SOIL SAMPLE LOCATIONS AND ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample Location	Sample Depth	Sample Type	Scraped?	Asbestos	Aldehydes	Dioxins	Gen Chem	Metals	OCPs
MC1-AY37	14	Initial			X		X	X	X
MC1-AY38	0	Initial		X	X	X	X	X	X
MC1-AY38	11	Initial			X		X	X	X
MC1-AY39	0	Initial		X	X	X	X	X	X
MC1-AY39	11	Initial			X		X	X	X
MC1-AZ36	0	Initial		X	X	X	X	X	X
MC1-AZ36	3	Initial			X	X	X	X	X
MC1-AZ36	13	Initial			X		X	X	X
MC1-AZ37	0	Initial		X	X	X	X	X	X
MC1-AZ37	12	Initial			X		X	X	X
MC1-AZ37R	0	Confirm		X					
MC1-BA36	0	Initial		X	X	X	X	X	X
MC1-BA36	12	Initial			X		X	X	X
MC1-J01	0	Initial		X	X	X	X	X	X
MC1-J01	3	Initial			X	X	X	X	X
MC1-J01	13	Initial			X		X	X	X
MC1-J02	0	Initial		X	X	X	X	X	X
MC1-J02	8	Initial			X	X	X	X	X
MC1-J02	18	Initial			X		X	X	X
MC1-J03	0	Initial		X	X	X	X	X	X
MC1-J03	6	Initial			X	X	X	X	X
MC1-J03	16	Initial			X		X	X	X
MC1-J04	0	Initial		X	X	X	X	X	X
MC1-J04	8	Initial			X	X	X	X	X
MC1-J04	18	Initial			X		X	X	X
MC1-J05	0	Initial		X	X	X	X	X	X
MC1-J05	9	Initial			X		X	X	X
MC1-J06	0	Initial		X	X	X	X	X	X
MC1-J06	8	Initial			X	X	X	X	X
MC1-J06	18	Initial			X		X	X	X
MC1-J07	0	Initial		X	X	X	X	X	X
MC1-J07	8	Initial			X	X	X	X	X
MC1-J07	18	Initial			X		X	X	X
MC1-J08	0	Initial		X	X	X	X	X	X
MC1-J08	9	Initial			X	X	X	X	X
MC1-J08	19	Initial			X		X	X	X
MC1-J09	0	Initial		X	X	X	X	X	X
MC1-J09	10	Initial			X		X	X	X
MC1-J10	0	Initial		X	X	X	X	X	X
MC1-J10	3	Initial			X	X	X	X	X
MC1-J10	13	Initial			X		X	X	X
MC1-J11	0	Initial	YES	X	X	X	X	X	X
MC1-J11	4	Initial			X	X	X	X	X
MC1-J11	14	Initial			X		X	X	X
MC1-J12	0	Initial		X	X	X	X	X	X
MC1-J12	11	Initial			X		X	X	X
MC1-J13	0	Initial		X	X	X	X	X	X
MC1-J13	12	Initial			X		X	X	X
MC1-J14	0	Initial		X	X	X	X	X	X
MC1-J14	12	Initial			X		X	X	X

TABLE 3
FINAL CONFIRMATION SOIL SAMPLE LOCATIONS AND ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample Location	Sample Depth	Sample Type	Scraped?	Asbestos	Aldehydes	Dioxins	Gen Chem	Metals	OCPs
MC1-J15	0	Initial	YES	X	X	X	X	X	X
MC1-J15	11	Initial			X		X	X	X
MC1-J16	0	Initial		X	X	X	X	X	X
MC1-J16	3	Initial			X	X	X	X	X
MC1-J16	13	Initial			X		X	X	X
MC1-J17	0	Initial		X	X	X	X	X	X
MC1-J17	10	Initial			X		X	X	X
MC1-J18	0	Initial		X	X	X	X	X	X
MC1-J18	12	Initial			X		X	X	X
MC1-J19	0	Initial		X	X	X	X	X	X
MC1-J19	4	Initial			X	X	X	X	X
MC1-J19	14	Initial			X		X	X	X
MC1-J20	0	Initial		X	X	X	X	X	X
MC1-J20	10	Initial			X		X	X	X
MC1-J21	0	Supplement						X	
MC1-J22	0	Supplement	YES					X	
MC1-J23	0	Supplement			X			X	
MC1-J24	0	Supplement			X			X	
MC1-J25	0	Supplement						X	
MC1-J26	0	Supplement						X	
MC1-J27	0	Supplement						X	
MC1-J28	0	Confirm	YES	X				X	X
MC1-J29	0	Confirm	YES	X				X	X
MC1-J30	0	Confirm	YES	X				X	X
MC1-J31	0	Confirm	YES	X				X	X
MC2-J32	0	Confirm						X	
MC2-J33	0	Confirm						X	
MC2-J34	0	Confirm	YES					X	
MC2-J35	0	Confirm	YES					X	
MC2-J36	0	Confirm	YES					X	
MC2-J37	0	Confirm	YES					X	
MC2-J38	0	Confirm	YES					X	
MC2-J39	0	Confirm						X	
MC2-J40	0	Confirm	YES					X	
MC3-J41	0	Confirm						X	
MC3-J42	0	Confirm						X	
MC3-J43	0	Confirm						X	
MC3-J44	0	Confirm						X	
MC3-J45	0	Confirm						X	
MC3-J46	0	Confirm						X	

[shaded box] = Location removed. As noted in the text, post-scrape analyses associated with follow-up rounds of remediation focused on the analytes triggering that additional remediation, and did not include the full suite analyses of the original analytical program. Therefore, analytical results from the original SAP dataset were retained for all analytes except those that were re-run after additional scraping.

TABLE 3
FINAL CONFIRMATION SOIL SAMPLE LOCATIONS AND ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample Location	Sample Depth	Sample Type	Scraped?	PAHs	Aroclors	PCBs	Rads	SVOCs	VOCs
MC1-A01	0	Supplement							
MC1-A02	0	Supplement							
MC1-A03	0	Supplement							
MC1-A04	0	Supplement							
MC1-A05	0	Supplement							
MC1-A06	0	Supplement							
MC1-A07	0	Supplement							
MC1-AV37	0	Initial	YES	X	X	X	X	X	X
MC1-AV37	11	Initial		X	X		X	X	X
MC1-AV37R	0	Confirm							
MC1-AV38	0	Initial	YES	X	X	X	X	X	X
MC1-AV38	11	Initial		X			X	X	X
MC1-AV38C	0	Confirm	YES			X	X		
MC1-AV38NE	0	Confirm				X			
MC1-AV38NW	0	Confirm				X			
MC1-AV38SE	0	Confirm				X			
MC1-AV38SW	0	Confirm				X			
MC2-AV38C	0	Confirm					X		
MC1-AW36	0	Initial		X	X	X	X	X	X
MC1-AW36	12	Initial		X			X	X	X
MC1-AW37	0	Initial	YES	X	X	X	X	X	X
MC1-AW37	10	Initial		X			X	X	X
MC1-AW37R	0	Confirm							
MC1-AW38	0	Initial		X	X	X	X	X	X
MC1-AW38	12	Initial		X	X		X	X	X
MC1-AW39	0	Initial		X	X	X	X	X	X
MC1-AW39	12	Initial		X			X	X	X
MC1-AX36	0	Initial		X	X	X	X	X	X
MC1-AX36	3	Initial		X			X	X	X
MC1-AX36	13	Initial		X	X	X	X	X	X
MC1-AX37	0	Initial		X	X	X	X	X	X
MC1-AX37	10	Initial		X			X	X	X
MC1-AX38	0	Initial		X	X	X	X	X	X
MC1-AX38	11	Initial		X			X	X	X
MC1-AX39	0	Initial		X	X	X	X	X	X
MC1-AX39	3	Initial		X	X	X	X	X	X
MC1-AX39	13	Initial		X			X	X	X
MC1-AX40	0	Initial		X	X	X	X	X	X
MC1-AX40	5	Initial		X	X	X	X	X	X
MC1-AX40	15	Initial		X			X	X	X
MC1-AY36	0	Initial	YES	X	X	X	X	X	X
MC1-AY36	3	Initial		X	X	X	X	X	X
MC1-AY36	13	Initial		X			X	X	X
MC1-AY36C	0	Confirm				X	X		
MC1-AY36NE	0	Confirm				X			
MC1-AY36NW	0	Confirm				X			
MC1-AY36SE	0	Confirm				X			
MC1-AY36SW	0	Confirm				X			
MC1-AY37	0	Initial		X	X	X	X	X	X
MC1-AY37	4	Initial		X	X	X	X	X	X

TABLE 3
FINAL CONFIRMATION SOIL SAMPLE LOCATIONS AND ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample Location	Sample Depth	Sample Type	Scraped?	PAHs	Aroclors	PCBs	Rads	SVOCs	VOCs
MC1-AY37	14	Initial		X			X	X	X
MC1-AY38	0	Initial		X	X	X	X	X	X
MC1-AY38	11	Initial		X			X	X	X
MC1-AY39	0	Initial		X	X	X	X	X	X
MC1-AY39	11	Initial		X			X	X	X
MC1-AZ36	0	Initial		X	X	X	X	X	X
MC1-AZ36	3	Initial		X	X	X	X	X	X
MC1-AZ36	13	Initial		X			X	X	X
MC1-AZ37	0	Initial		X	X	X	X	X	X
MC1-AZ37	12	Initial		X			X	X	X
MC1-AZ37R	0	Confirm							
MC1-BA36	0	Initial		X	X	X	X	X	X
MC1-BA36	12	Initial		X			X	X	X
MC1-J01	0	Initial		X	X	X	X	X	X
MC1-J01	3	Initial		X	X	X	X	X	X
MC1-J01	13	Initial		X			X	X	X
MC1-J02	0	Initial		X	X	X	X	X	X
MC1-J02	8	Initial		X	X	X	X	X	X
MC1-J02	18	Initial		X			X	X	X
MC1-J03	0	Initial		X	X	X	X	X	X
MC1-J03	6	Initial		X	X	X	X	X	X
MC1-J03	16	Initial		X			X	X	X
MC1-J04	0	Initial		X	X	X	X	X	X
MC1-J04	8	Initial		X	X	X	X	X	X
MC1-J04	18	Initial		X			X	X	X
MC1-J05	0	Initial		X	X	X	X	X	X
MC1-J05	9	Initial		X			X	X	X
MC1-J06	0	Initial		X	X	X	X	X	X
MC1-J06	8	Initial		X	X	X	X	X	X
MC1-J06	18	Initial		X			X	X	X
MC1-J07	0	Initial		X	X	X	X	X	X
MC1-J07	8	Initial		X	X	X	X	X	X
MC1-J07	18	Initial		X			X	X	X
MC1-J08	0	Initial		X	X	X	X	X	X
MC1-J08	9	Initial		X	X	X	X	X	X
MC1-J08	19	Initial		X			X	X	X
MC1-J09	0	Initial		X	X	X	X	X	X
MC1-J09	10	Initial		X	X		X	X	X
MC1-J10	0	Initial		X	X	X	X	X	X
MC1-J10	3	Initial		X	X	X	X	X	X
MC1-J10	13	Initial		X			X	X	X
MC1-J11	0	Initial	YES	X	X	X	X	X	X
MC1-J11	4	Initial		X	X	X	X	X	X
MC1-J11	14	Initial		X			X	X	X
MC1-J12	0	Initial		X	X	X	X	X	X
MC1-J12	11	Initial		X			X	X	X
MC1-J13	0	Initial		X	X	X	X	X	X
MC1-J13	12	Initial		X			X	X	X
MC1-J14	0	Initial		X	X	X	X	X	X
MC1-J14	12	Initial		X			X	X	X

TABLE 3
FINAL CONFIRMATION SOIL SAMPLE LOCATIONS AND ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample Location	Sample Depth	Sample Type	Scraped?	PAHs	Aroclors	PCBs	Rads	SVOCs	VOCs
MC1-J15	0	Initial	YES	X	X	X	X	X	X
MC1-J15	11	Initial		X			X	X	X
MC1-J16	0	Initial		X	X	X	X	X	X
MC1-J16	3	Initial		X	X	X	X	X	X
MC1-J16	13	Initial		X			X	X	X
MC1-J17	0	Initial		X	X	X	X	X	X
MC1-J17	10	Initial		X			X	X	X
MC1-J18	0	Initial		X	X	X	X	X	X
MC1-J18	12	Initial		X			X	X	X
MC1-J19	0	Initial		X	X	X	X	X	X
MC1-J19	4	Initial		X	X	X	X	X	X
MC1-J19	14	Initial		X			X	X	X
MC1-J20	0	Initial		X	X	X	X	X	X
MC1-J20	10	Initial		X			X	X	X
MC1-J21	0	Supplement							
MC1-J22	0	Supplement	YES						
MC1-J23	0	Supplement							
MC1-J24	0	Supplement							
MC1-J25	0	Supplement							
MC1-J26	0	Supplement							
MC1-J27	0	Supplement							
MC1-J28	0	Confirm	YES	X			X	X	
MC1-J29	0	Confirm	YES	X			X	X	
MC1-J30	0	Confirm	YES	X			X	X	
MC1-J31	0	Confirm	YES	X			X	X	
MC2-J32	0	Confirm					X		
MC2-J33	0	Confirm					X		
MC2-J34	0	Confirm	YES				X		
MC2-J35	0	Confirm	YES				X		
MC2-J36	0	Confirm	YES				X		
MC2-J37	0	Confirm	YES				X		
MC2-J38	0	Confirm	YES				X		
MC2-J39	0	Confirm					X		
MC2-J40	0	Confirm	YES				X		
MC3-J41	0	Confirm					X		
MC3-J42	0	Confirm					X		
MC3-J43	0	Confirm					X		
MC3-J44	0	Confirm					X		
MC3-J45	0	Confirm					X		
MC3-J46	0	Confirm					X		

[shaded box] = Location removed. As noted in the text, post-scrape analyses associated with follow-up rounds of remediation focused on the analytes triggering that additional remediation, and did not include the full suite analyses of the original analytical program. Therefore, analytical results from the original SAP dataset were retained for all analytes except those that were re-run after additional scraping.

TABLE 4
FINAL HUMAN HEALTH RISK ASSESSMENT SOIL DATASET RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data							Detected Data[1]							Resident Soil BCL	Count of Detects > BCL	LBCL (DAF 1)	Count of Detects > DAF 1	LBCL (DAF 20)	Count of Detects > DAF 20	Max. Bkgrnd[2]	Count of Detects > Bkgrnd
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max								
Asbestos[3]	Amphibole	--	54	0%	54	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chrysotile	--	54	22%	42	--	--	--	--	--	--	12	1	--	--	--	--	4	--	--	--	--	--	--	--	--
Aldehydes	Acetaldehyde	mg/kg	104	38%	65	0.15	0.15	0.3	0.24	0.3	0.544	39	0.152	0.34	0.41	0.56	0.78	1.51	14	0	--	--	--	--	--	--
	Chloral	mg/kg	101	0%	101	0.067	0.069	0.07	0.077	0.074	0.17	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chloroacetaldehyde	mg/kg	102	0%	102	0.25	0.25	0.5	0.39	0.5	0.5	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dichloroacetaldehyde	mg/kg	101	0%	101	0.17	0.18	0.18	0.19	0.19	0.42	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Formaldehyde	mg/kg	104	65%	36	0.2	0.51	0.99	0.92	1	2.53	68	0.138	0.29	0.46	1.1	1.1	6.74	11	0	--	--	--	--	--	--
Dioxins/Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran[4]	pg/g	71	34%	47	0.035	0.23	1.2	2.6	2.5	14	24	2.9	5.9	16	34	46	150	--	--	--	--	--	--	--	--
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin[4]	pg/g	71	23%	55	0.011	0.22	1.2	1.4	2.1	5	16	2.5	3.4	6	9.7	17	28	--	--	--	--	--	--	--	--
	1,2,3,4,7,8,9-Heptachlorodibenzofuran[4]	pg/g	71	30%	50	0.035	0.24	1.1	1.3	2	4.4	21	2.6	4.9	9.7	17	22	70	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-Hexachlorodibenzofuran[4]	pg/g	71	32%	48	0.026	0.12	0.84	0.91	1.6	2.6	23	2.6	5.4	9.1	19	28	69	--	--	--	--	--	--	--	--
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin[4]	pg/g	71	1%	70	0.029	0.21	0.99	1	1.7	2.7	1	2.7	--	2.7	2.7	--	2.7	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-Hexachlorodibenzofuran[4]	pg/g	71	24%	54	0.022	0.13	0.79	0.83	1.3	2.5	17	3.5	5.2	8.9	16	22	51	--	--	--	--	--	--	--	--
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin[4]	pg/g	71	7%	66	0.029	0.2	0.93	0.93	1.4	3.9	5	3.6	4.1	5.6	5.4	6.6	6.9	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-Hexachlorodibenzofuran[4]	pg/g	71	8%	65	0.015	0.21	0.88	0.87	1.2	2.6	6	2.9	3.2	5.7	5.9	8.5	10	--	--	--	--	--	--	--	--
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin[4]	pg/g	71	4%	68	0.028	0.19	0.88	0.88	1.4	2.4	3	3.8	3.8	4.1	4	4.2	4.2	--	--	--	--	--	--	--	--
	1,2,3,7,8-Pentachlorodibenzofuran[4]	pg/g	71	24%	54	0.011	0.12	0.69	0.7	0.99	2.4	17	3	5.8	8.8	17	28	46	--	--	--	--	--	--	--	--
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin[4]	pg/g	71	6%	67	0.055	0.22	0.92	0.85	1.2	2.7	4	2.9	3	3.5	3.5	4	4	--	--	--	--	--	--	--	--
	2,3,4,6,7,8-Hexachlorodibenzofuran[4]	pg/g	71	10%	64	0.011	0.16	0.92	0.85	1.3	2.5	7	4.3	5	6.3	7.9	12	13	--	--	--	--	--	--	--	--
	2,3,4,7,8-Pentachlorodibenzofuran[4]	pg/g	71	20%	57	0.015	0.13	0.72	0.68	0.94	2	14	2.8	3.4	8.8	11	19	25	--	--	--	--	--	--	--	--
	2,3,7,8-Tetrachlorodibenzofuran[4]	pg/g	71	46%	38	0.016	0.19	0.3	0.29	0.43	0.62	33	0.51	0.76	1.8	5	7	21	--	--	--	--	--	--	--	--
	2,3,7,8-Tetrachlorodibenzo-p-dioxin[4]	pg/g	71	8%	65	0.035	0.14	0.42	0.35	0.51	0.86	6	0.61	0.65	0.92	0.88	1.1	1.2	--	--	--	--	--	--	--	--
	Octachlorodibenzodioxin[4]	pg/g	71	27%	52	0.32	1.2	2.3	2.7	3.7	9	19	5.1	6.6	12	24	28	140	--	--	--	--	--	--	--	--
	Octachlorodibenzofuran[4]	pg/g	71	48%	37	0.074	0.51	1.8	2.8	4.7	10	34	6.5	13	33	91	91	540	--	--	--	--	--	--	--	--
	TCDD TEQ	pg/g	71	--[4]	--	--	--	--	--	--	--	71	0.19	0.62	1.7	4.5	3.1	40.7	50	0	--	--	--	--	--	--
General Chemistry/ Ions	Ammonia	mg/kg	102	11%	91	0.78	0.8	0.81	0.86	0.83	5	11	0.83	1.1	2.1	3.4	3.8	15.3	100000	0	--	--	--	--	--	--
	Bromide	mg/kg	102	8%	94	0.25	0.26	0.26	0.26	0.26	0.29	8	0.68	0.87	1.7	2.2	2.6	6.5	--	--	--	--	--	--	--	--
	Chlorate	mg/kg	102	16%	86	0.53	0.54	0.55	0.55	0.56	0.61	16	1.4	1.7	2.6	4.1	5.8	13.2	--	--	--	--	--	--	--	--
	Chloride	mg/kg	102	100%	0	--	--	--	--	--	--	102	0.77	3.3	18	130	91	2230	--	--	--	--	--	--	--	--
	Cyanide (Total)	mg/kg	102	5%	97	0.079	0.081	0.082	0.11	0.084	0.55	5	0.088	0.09	0.096	0.099	0.11	0.11	1220	0	2	0	40	0	--	--
	Fluoride	mg/kg	102	80%	20	0.1	0.1	0.1	0.1	0.11	0.11	82	0.45	0.97	1.3	1.6	2	6.2	3670	0	--	--	--	--	--	--
	Nitrate (as N)	mg/kg	102	100%	0	--	--	--	--	--	--	102	0.22	1.2	2.6	12	9.3	185	--	--	--	--	--	--	--	--
	Nitrite (as N)	mg/kg	102	0%	102	0.02	0.021	0.021	0.16	0.21	2.2	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Orthophosphate as P	mg/kg	102	8%	94	0.51	0.52	0.53	1.7	1.7	5.8	8	1.2	1.5	5.4	6.8	8.2	23.8	--	--	--	--	--	--	--	--
	Perchlorate	mg/kg	97	88%	12	0.041	0.041	0.042	0.042	0.043	0.0429	85	0.0152	0.056	0.18	0.5	0.42	5.58	55	0	--	--	--	--	--	--
	Sulfate	mg/kg	102	100%	0	--	--	--	--	--	--	102	2.3	34	73	280	150	6830	--	--	--	--	--	--	--	--
	Sulfide	mg/kg	102	3%	99	1.8	1.8	1.8	1.8	1.9	2	3	135	140	150	160	200	196	--	--	--	--	--	--	--	--
	Total Kjeldahl Nitrogen (TKN)	mg/kg	102	81%	19	12.8	52	53	54	55	94.4	83	19.3	78	110	160	160	1250	--	--	--	--	--	--	--	--
Metals	Aluminum	mg/kg	114	100%	0	--	--	--	--	--	--	114	3970	7100	7900	8200	9200	12600	77200	0	75	114	1500	114	15500	0
	Antimony	mg/kg	114	1%	113	0.126	0.13	1	0.74	1	2.8	1	1.1	--	1.1	1.1	--	1.1	31	0	0.3	1	6	0	0.61	1
	Arsenic	mg/kg	114	100%	0	--	--	--	--	--	--	114	3.2	4.8	5.6	5.9	6.6	9.9	0.39	114	1	114	20	0	27.6	0
	Barium	mg/kg	114	100%	0	--	--	--	--	--	--	114	178	430	480	500	570	1190	15300	0	82	114	1640	0	755	7
	Beryllium	mg/kg	114	100%	0	--	--	--	--	--	--	114	0.22	0.38	0.43	0.51	0.52	2.1	160	0	3	0	60	0	0.78	7
	Boron	mg/kg	114	3%	111	2.99	6.6	6.6	10	17	52.1	3	7.2	7.2	7.5	7.8	8.7	8.7	15600	0	23	0	460	0	57	0
	Cadmium	mg/kg	114	61%	44	0.04	0.1	0.1	0.12	0.11	0.26	70	0.044	0.059	0.084	0.095	0.12	0.23	39	0	0.4	0	8	0	0.26	0
	Calcium	mg/kg	114	100%	0	--	--	--	--	--	--	114	2710	17000	22000	25000	28000	71600	--	--	--	--	--	--	71300	1
	Chromium (Total)	mg/kg	114	100%	0	--	--	--	--	--	--	114	4.5	7.7	9.2	18	13	352	100000	0	2	114	40	8	23.6	11
	Chromium (VI)	mg/kg	111	35%	72	0.1	1	1.1	1	1.1	1.2	39	0.42	0.57	0.69	1.1	1.2	4.4	230	0	2	4	40	0	0.56	30
	Cobalt	mg/kg	114	100%	0	--	--	--	--	--	--	114	2.4	3.9	4.4	5.4	5.4	22.3	23	0	33	0	660	0	8.9	7
	Copper	mg/kg	114	100%	0	--	--	--	--	--	--	114	5.1	8.7	10	12	13	81.5	2910	0	35	2	700	0	36.2	2
	Iron	mg/kg	114	100%	0	--	--	--	--	--	--	114	4040	7000	8000	8500	9800	17000	54800	0	7.5	114	150	114	21700	0
	Lead	mg/kg	114	100%	0	--	--	--	--	--	--	114	5.8	9.5	12	15	16	70.2	400	0	--	--	--	--	53	2
	Lithium	mg/kg	114	29%	81	13.14	13	13	25	26	114	33	6.8	14	18	20	23	46.4	160	0	--	--	--	--	41.8	1
	Magnesium	mg/kg	114	100%	0	--	--	--	--	--	--	114	3540	5600	6500	6800	7700	21800	100000	0	650	114	13000	1	15000	1
	Manganese	mg/kg	114	100%	0	--	--	--	--	--	--	114	144	250	370	510	560	2120	1080	12	3.3	114	66	114	2070	1
	Mercury	mg/kg	110	15%	93	0.005	0.012	0.012	0.012	0.012	0.0347	17	0.0121	0.013	0.015	0.017	0.02	0.0283	23	0	0.1	0	2	0	0.00668	17
	Molybdenum	mg/kg	114	55%	51	0.188	1	1.1	1.5	2.5	2.9	63	0.23	0.38	0.51	0.82	0.63	14.4	390	0	3.6	1	72	0	2.3	1
	Nickel	mg/kg	114	100%	0	--	--	--	--	--	--	114	6.4	9.7	11	14	15	45.3	1540	0	7	112	140	0	22	16

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data							Detected Data[1]							Resident Soil BCL	Count of Detects > BCL	LBCL (DAF 1)	Count of Detects > DAF 1	LBCL (DAF 20)	Count of Detects > DAF 20	Max. Bkgrnd[2]	Count of Detects > Bkgrnd
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max								
Metals	Niobium	mg/kg	82	4%	79	3	3	3	3.5	3	7.5	3	4.1	4.1	5.1	9.4	19	19	--	--	--	--	--	--	4.6	2
	Palladium	mg/kg	95	100%	0	--	--	--	--	--	--	95	0.21	0.59	0.74	0.77	0.95	1.5	--	--	--	--	--	--	1.6	0
	Phosphorus (as P)	mg/kg	95	100%	0	--	--	--	--	--	--	95	299	540	620	660	760	1320	--	--	--	--	--	--	1710	0
	Platinum	mg/kg	95	0%	95	0.024	0.048	0.048	0.055	0.048	0.12	0	--	--	--	--	--	--	--	--	--	--	--	--	0.048	--
	Potassium	mg/kg	114	100%	0	--	--	--	--	--	--	114	1050	2400	3100	3100	3800	7720	--	--	--	--	--	--	9000	0
	Selenium	mg/kg	114	0%	114	0.16	0.32	0.32	0.52	0.32	2.6	0	--	--	--	--	--	--	390	--	0.3	--	6	--	0.32	--
	Silicon	mg/kg	95	100%	0	--	--	--	--	--	--	95	88.3	140	200	230	280	679	--	--	--	--	--	--	7480	0
	Silver	mg/kg	114	82%	21	0.044	0.044	0.11	0.085	0.11	0.11	93	0.042	0.057	0.07	0.092	0.092	0.45	390	0	2	0	40	0	0.17	9
	Sodium	mg/kg	114	100%	0	--	--	--	--	--	--	114	145	940	1600	1500	2100	3300	--	--	--	--	--	--	4210	0
	Strontium	mg/kg	114	100%	0	--	--	--	--	--	--	114	99.8	240	300	320	380	632	46900	0	--	--	--	--	761	0
	Sulfur	mg/kg	95	27%	69	43.4	110	110	100	110	108.5	26	455	490	570	950	720	6720	--	--	--	--	--	--	--	--
	Thallium	mg/kg	114	6%	107	0.15	0.3	0.3	0.44	0.46	1.2	7	0.33	0.59	1.5	2.3	3.2	6.97	5.5	1	0.4	6	8	0	2	3
	Tin	mg/kg	114	22%	89	0.3	0.3	0.3	0.43	0.75	0.75	25	0.31	0.33	0.41	0.74	0.71	4.4	46900	0	--	--	--	--	1	4
	Titanium	mg/kg	114	100%	0	--	--	--	--	--	--	114	172	300	350	370	390	853	100000	0	150000	0	3000000	0	611	6
	Tungsten	mg/kg	114	16%	96	0.25	0.5	0.5	0.93	1.3	2.7	18	0.52	0.63	1.2	1.9	2.4	7.4	590	0	41	0	820	0	1	10
	Uranium	mg/kg	114	100%	0	--	--	--	--	--	--	114	0.49	0.77	0.99	1.2	1.3	8.3	230	0	13.5	0	270	0	4.3	2
	Vanadium	mg/kg	114	100%	0	--	--	--	--	--	--	114	13.3	20	24	43	37	458	390	1	300	1	6000	0	55.3	19
	Zinc	mg/kg	114	100%	0	--	--	--	--	--	--	114	17.6	24	27	38	34	236	23500	0	620	0	12400	0	70.5	9
	Zirconium	mg/kg	95	100%	0	--	--	--	--	--	--	95	5	8.7	9.8	11	12	71.7	--	--	--	--	--	--	16.8	4
Organochlorine Pesticides	2,4-DDD	mg/kg	107	0%	107	0.00031	0.00031	0.00032	0.00032	0.00032	0.00035	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-DDE	mg/kg	107	21%	85	0.0002	0.00021	0.00021	0.00021	0.00021	0.00023	22	0.0019	0.0023	0.0039	0.0079	0.012	0.042	--	--	--	--	--	--	--	--
	4,4-DDD	mg/kg	107	0%	107	0.000089	0.000091	0.000093	0.000093	0.000094	0.0001	0	--	--	--	--	--	--	2.4	--	0.8	--	16	--	--	--
	4,4-DDE	mg/kg	107	21%	84	0.00019	0.0002	0.0002	0.0002	0.0002	0.00022	23	0.0019	0.0028	0.0042	0.01	0.0066	0.069	1.7	0	3	0	60	0	--	--
	4,4-DDT	mg/kg	107	5%	102	0.0002	0.00021	0.00021	0.00021	0.00021	0.00023	5	0.0027	0.0034	0.0047	0.023	0.052	0.077	1.7	0	2	0	40	0	--	--
	Aldrin	mg/kg	107	0%	107	0.000095	0.000097	0.000099	0.000099	0.0001	0.00011	0	--	--	--	--	--	--	0.029	--	0.02	--	0.4	--	--	--
	alpha-BHC	mg/kg	107	0%	107	0.00028	0.00029	0.00029	0.0003	0.0003	0.00033	0	--	--	--	--	--	--	0.09	--	0.00003	--	0.0006	--	--	--
	alpha-Chlordane	mg/kg	107	0%	107	0.00021	0.00022	0.00022	0.00022	0.00022	0.00024	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	beta-BHC	mg/kg	107	7%	100	0.00019	0.00019	0.00019	0.0002	0.0002	0.00022	7	0.0018	0.0018	0.002	0.0029	0.0042	0.0063	0.32	0	0.0001	7	0.002	3	--	--
	Chlordane	mg/kg	107	0%	107	0.0023	0.0024	0.0024	0.0024	0.0025	0.0027	0	--	--	--	--	--	--	1.6	--	0.5	--	10	--	--	--
	delta-BHC	mg/kg	107	0%	107	0.00017	0.00017	0.00017	0.00017	0.00018	0.00019	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dieldrin	mg/kg	107	0%	107	0.000091	0.000093	0.000095	0.000095	0.000096	0.00011	0	--	--	--	--	--	--	0.03	--	0.0002	--	0.004	--	--	--
	Endosulfan I	mg/kg	107	0%	107	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan II	mg/kg	107	0%	107	0.000093	0.000095	0.000097	0.000097	0.000098	0.00011	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endosulfan sulfate	mg/kg	107	0%	107	0.00026	0.00027	0.00027	0.00027	0.00028	0.0003	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Endrin	mg/kg	107	0%	107	0.000083	0.000085	0.000086	0.000087	0.000088	0.000096	0	--	--	--	--	--	--	18	--	0.05	--	1	--	--	--
	Endrin aldehyde	mg/kg	107	1%	106	0.00018	0.00018	0.00019	0.00019	0.00019	0.00021	1	0.0028	--	0.0028	0.0028	--	0.0028	--	--	--	--	--	--	--	--
	Endrin ketone	mg/kg	107	0%	107	0.00016	0.00017	0.00017	0.00017	0.00017	0.00019	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	gamma-Chlordane	mg/kg	107	0%	107	0.000083	0.000085	0.000086	0.000087	0.000088	0.000096	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Heptachlor	mg/kg	107	0%	107	0.00017	0.00018	0.00018	0.00018	0.00018	0.0002	0	--	--	--	--	--	--	0.11	--	1	--	20	--	--	--
	Heptachlor epoxide	mg/kg	107	0%	107	0.00013	0.00013	0.00014	0.00014	0.00014	0.00015	0	--	--	--	--	--	--	0.053	--	0.03	--	0.6	--	--	--
	Lindane	mg/kg	107	0%	107	0.00012	0.00013	0.00013	0.00013	0.00013	0.00014	0	--	--	--	--	--	--	0.44	--	0.0005	--	0.01	--	--	--
	Methoxychlor	mg/kg	107	0%	107	0.00032	0.00032	0.00033	0.00033	0.00033	0.00036	0	--	--	--	--	--	--	310	--	8	--	160	--	--	--
	Toxaphene	mg/kg	107	0%	107	0.0058	0.0059	0.006	0.0061	0.0061	0.0067	0	--	--	--	--	--	--	0.44	--	2	--	40	--	--	--
Polynuclear Aromatic Hydrocarbons	Acenaphthene	mg/kg	107	0%	107	0.00173	0.018	0.018	0.018	0.019	0.02	0	--	--	--	--	--	--	4690	--	29	--	580	--	--	--
	Acenaphthylene	mg/kg	107	0%	107	0.00173	0.016	0.016	0.016	0.016	0.018	0	--	--	--	--	--	--	150	--	--	--	--	--	--	--
	Anthracene	mg/kg	107	0%	107	0.00067	0.00069	0.0007	0.00075	0.00071	0.00177	0	--	--	--	--	--	--	23500	--	590	--	11800	--	--	--
	Benzo(a)anthracene	mg/kg	107	0%	107	0.0011	0.0012	0.0012	0.0012	0.0012	0.00177	0	--	--	--	--	--	--	0.62	--	0.08	--	1.6	--	--	--
	Benzo(a)pyrene	mg/kg	107	0%	107	0.00173	0.002	0.002	0.002	0.0021	0.0023	0	--	--	--	--	--	--	0.062	--	0.4	--	8	--	--	--
	Benzo(b)fluoranthene	mg/kg	107	0%	107	0.00173	0.002	0.002	0.002	0.0021	0.0023	0	--	--	--	--	--	--	0.62	--	0.2	--	4	--	--	--
	Benzo(g,h,i)perylene	mg/kg	107	0%	107	0.00173	0.0063	0.0064	0.0062	0.0065	0.0071	0	--	--	--	--	--	--	2350	--	--	--	--	--	--	--
	Benzo(k)fluoranthene	mg/kg	107	0%	107	0.00173	0.0023	0.0024	0.0024	0.0024	0.0026	0	--	--	--	--	--	--	6.2	--	2	--	40	--	--	--
	Chrysene	mg/kg	107	0%	107	0.0011	0.0011	0.0011	0.0011	0.0011	0.00177	0	--	--	--	--	--	--	62	--	8	--	160	--	--	--
	Dibenzo(a,h)anthracene	mg/kg	107	0%	107	0.00173	0.0038	0.0039	0.0038	0.0039	0.0043	0	--	--	--	--	--	--	0.062	--	0.08	--	1.6	--	--	--
	Indeno(1,2,3-cd)pyrene	mg/kg	107	0%	107	0.00173	0.002	0.002	0.002	0.002	0.0022	0	--	--	--	--	--	--	0.62	--	0.7	--	14	--	--	--
	Phenanthrene	mg/kg	107	0%	107	0.0017	0.0017	0.0018	0.0018	0.0018	0.002	0	--	--	--	--	--	--	25	--	--	--	--	--	--	--
	Pyrene	mg/kg	107	0%	107	0.00173	0.003	0.0031	0.0031	0.0032	0.0034	0	--	--	--	--	--	--	2350	--	210	--	4200	--	--	--

TABLE 4
FINAL HUMAN HEALTH RISK ASSESSMENT SOIL DATASET RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data							Detected Data[1]							Resident Soil BCL	Count of Detects > BCL	LBCL (DAF 1)	Count of Detects > DAF 1	LBCL (DAF 20)	Count of Detects > DAF 20	Max. Bkgrnd[2]	Count of Detects > Bkgrnd
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max								
Polychlorinated Biphenyls	Aroclor 1016	mg/kg	67	0%	67	0.0049	0.005	0.0051	0.0051	0.0052	0.0057	0	--	--	--	--	--	--	3.9	--	--	--	--	--	--	--
	Aroclor 1221	mg/kg	67	0%	67	0.0049	0.005	0.0051	0.0051	0.0052	0.0057	0	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--
	Aroclor 1232	mg/kg	67	0%	67	0.0049	0.005	0.0051	0.0051	0.0052	0.0057	0	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--
	Aroclor 1242	mg/kg	67	0%	67	0.0049	0.005	0.0051	0.0051	0.0052	0.0057	0	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--
	Aroclor 1248	mg/kg	67	0%	67	0.0049	0.005	0.0051	0.0051	0.0052	0.0057	0	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--
	Aroclor 1254	mg/kg	67	0%	67	0.0027	0.0027	0.0028	0.0028	0.0028	0.0031	0	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--
	Aroclor 1260	mg/kg	67	0%	67	0.0027	0.0027	0.0028	0.0028	0.0028	0.0031	0	--	--	--	--	--	--	0.22	--	--	--	--	--	--	--
	PCB 105[4]	pg/g	71	65%	25	2	2.1	2.1	2.1	2.2	2.3	46	2.2	11	27	84	72	550	--	--	--	--	--	--	--	--
	PCB 114[4]	pg/g	71	56%	31	2	2.1	2.1	2.1	2.1	2.3	40	2.4	6.4	12	51	47	510	--	--	--	--	--	--	--	--
	PCB 118[4]	pg/g	71	73%	19	2.1	2.1	2.1	2.2	2.2	3.6	52	2.5	11	44	160	140	1300	--	--	--	--	--	--	--	--
	PCB 123[4]	pg/g	71	0%	71	2	2	2.1	2.1	2.1	2.3	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB 126[4]	pg/g	71	18%	58	2	2	2.1	2.1	2.1	2.3	13	2.4	3.4	9.7	11	15	28	--	--	--	--	--	--	--	--
	PCB 156[4]	pg/g	71	54%	33	2	2.1	2.1	2.1	2.1	2.3	38	2.2	4.3	9.5	29	29	190	--	--	--	--	--	--	--	--
	PCB 157[4]	pg/g	71	28%	51	2	2	2.1	2.1	2.1	2.3	20	2.1	2.8	5	11	17	38	--	--	--	--	--	--	--	--
	PCB 167[4]	pg/g	71	35%	46	2	2	2.1	2.1	2.1	2.3	25	2.6	3.6	6.3	15	22	61	--	--	--	--	--	--	--	--
	PCB 169[4]	pg/g	71	0%	71	2	2	2.1	2.1	2.1	2.3	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB 189[4]	pg/g	71	17%	59	2	2	2.1	2.1	2.1	2.3	12	2.3	2.7	7.6	8.1	12	18	--	--	--	--	--	--	--	--
	PCB 209[4]	pg/g	71	58%	30	2	2.1	2.1	2.1	2.1	2.3	41	26	88	190	610	570	3700	--	--	--	--	--	--	--	--
	PCB 77[4]	pg/g	71	0%	71	2	2	2.1	2.1	2.1	2.3	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	PCB 81[4]	pg/g	71	0%	71	2	2	2.1	2.1	2.1	2.3	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Physical Properties	Cation Exchange Capacity	pg/g	102	100%	0	--	--	--	--	--	--	102	8.1	11	13	14	15	50.8	--	--	--	--	--	--	--	--
	Percent Moisture	pg/g	137	100%	0	--	--	--	--	--	--	137	0.2	2.4	3.8	5.8	5.6	96.1	--	--	--	--	--	--	--	--
	Percent Solids	pg/g	102	100%	0	--	--	--	--	--	--	102	81	91	95	94	97	99	--	--	--	--	--	--	--	--
	pH (Hydrogen Ion)	pg/g	102	100%	0	--	--	--	--	--	--	102	7.9	8.7	9.1	9.1	9.5	9.9	--	--	--	--	--	--	--	--
	Total Organic Carbon	pg/g	102	98%	2	0.065	--	0.065	0.065	--	0.065	100	0.2	4.3	6.9	7.7	11	27.1	--	--	--	--	--	--	--	--
Radionuclides	Radium-226	pCi/g	109	93%	8	--	--	--	--	--	--	101	0.479	0.79	1	1.1	1.2	3.11	0.0071	109	0.016	109	0.32	109	2.75	2
	Radium-228	pCi/g	109	90%	11	--	--	--	--	--	--	98	0.141	1.2	1.5	1.6	2	3.12	0.013	109	0.016	109	0.32	78	2.86	2
	Thorium-228	pCi/g	109	99%	1	--	--	--	--	--	--	108	0.809	1.4	1.7	1.7	2	2.67	0.0078	109	0.0023	109	0.045	109	3.37	0
	Thorium-230	pCi/g	109	83%	19	--	--	--	--	--	--	90	0.37	1	1.1	1.2	1.4	2.94	3.2	0	0.00084	109	0.017	109	3.64	0
	Thorium-232	pCi/g	109	100%	0	--	--	--	--	--	--	109	0.675	1.2	1.4	1.4	1.6	2.26	2.8	0	0.0029	109	0.058	109	2.8	0
	Uranium-233/234	pCi/g	109	76%	26	--	--	--	--	--	--	83	0.4	1	1	1.2	1.3	4.45	4.2	1	--	--	--	--	4.78	0
	Uranium-235/236	pCi/g	109	21%	86	--	--	--	--	--	--	23	-0.126	0.032	0.093	0.1	0.16	1	0.11	48	--	--	--	--	0.241	3
	Uranium-238	pCi/g	109	96%	4	--	--	--	--	--	--	105	0.147	0.75	0.91	1	1.2	3.02	0.46	105	--	--	--	--	4.01	0
Semivolatile Organic Compounds	1,2,4,5-Tetrachlorobenzene	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	18	--	--	--	--	--	--	--
	1,2-Diphenylhydrazine	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	0.61	--	--	--	--	--	--	--
	1,4-Dioxane	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	44	--	--	--	--	--	--	--
	2,2'-/4,4'-Dichlorobenzil	mg/kg	107	0%	107	0.114	0.34	0.35	0.34	0.36	0.41	0	--	--	--	--	--	--	23	--	0.0003	--	0.006	--	--	--
	2,4,5-Trichlorophenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	6110	--	14	--	280	--	--	--
	2,4,6-Trichlorophenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	44	--	0.008	--	0.16	--	--	--
	2,4-Dichlorophenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	180	--	0.05	--	1	--	--	--
	2,4-Dimethylphenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	1220	--	0.4	--	8	--	--	--
	2,4-Dinitrophenol	mg/kg	107	0%	107	0.131	0.34	0.34	0.34	0.35	0.38	0	--	--	--	--	--	--	120	--	0.01	--	0.2	--	--	--
	2,4-Dinitrotoluene	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	1.6	--	0.00004	--	0.0008	--	--	--
	2,6-Dinitrotoluene	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	61	--	0.00003	--	0.0006	--	--	--
	2-Chloronaphthalene	mg/kg	107	0%	107	0.0121	0.034	0.035	0.034	0.035	0.039	0	--	--	--	--	--	--	6260	--	--	--	--	--	--	--
	2-Chlorophenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	390	--	0.2	--	4	--	--	--
	2-Methylnaphthalene	mg/kg	107	0%	107	0.00691	0.034	0.035	0.034	0.035	0.039	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Nitroaniline	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	180	--	--	--	--	--	--	--
	2-Nitrophenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3,3'-Dichlorobenzidine	mg/kg	107	0%	107	0.033	0.034	0.035	0.038	0.035	0.106	0	--	--	--	--	--	--	1.1	--	0.0003	--	0.006	--	--	--
	3-Methylphenol & 4-Methylphenol	mg/kg	107	0%	107	0.067	0.068	0.069	0.073	0.071	0.142	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3-Nitroaniline	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Bromophenyl phenyl ether	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chloro-3-Methylphenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorophenyl phenyl ether	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorothioanisole	mg/kg	107	0%	107	0.0076	0.0078	0.0079	0.013	0.0081	0.117	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Nitrophenol	mg/kg	107	0%	107	0.0691	0.34	0.34	0.33	0.35	0.38	0	--	--	--	--	--	--	490	--	--	--	--	--	--	--
	Acetophenone	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	1740	--	--	--	--	--	--	--

TABLE 4
FINAL HUMAN HEALTH RISK ASSESSMENT SOIL DATASET RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data							Detected Data[1]							Resident Soil BCL	Count of Detects > BCL	LBCL (DAF 1)	Count of Detects > DAF 1	LBCL (DAF 20)	Count of Detects > DAF 20	Max. Bkgrnd[2]	Count of Detects > Bkgrnd
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max								
Semivolatile Organic Compounds	Aniline	mg/kg	107	0%	107	0.033	0.034	0.035	0.039	0.035	0.124	0	--	--	--	--	--	--	85	--	--	--	--	--	--	--
	Azobenzene	mg/kg	102	0%	102	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	3.9	--	--	--	--	--	--	--
	Benzenethiol	mg/kg	107	0%	107	0.114	0.13	0.13	0.13	0.13	0.14	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Benzoic acid	mg/kg	107	0%	107	0.033	0.034	0.035	0.041	0.035	0.177	0	--	--	--	--	--	--	100000	--	20	--	400	--	--	--
	Benzyl alcohol	mg/kg	107	0%	107	0.033	0.034	0.035	0.038	0.035	0.106	0	--	--	--	--	--	--	30600	--	--	--	--	--	--	--
	Benzyl butyl phthalate	mg/kg	107	1%	106	0.033	0.034	0.035	0.037	0.035	0.0708	1	0.039	--	0.039	0.039	--	0.039	240	0	810	0	16200	0	--	--
	bis(2-Chloroethoxy) methane	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	bis(2-Chloroethyl) ether	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	0.24	--	0.00002	--	0.0004	--	--	--
	bis(2-Chloroisopropyl) ether	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	3.4	--	--	--	--	--	--	--
	bis(2-Ethylhexyl) phthalate	mg/kg	107	3%	104	0.033	0.034	0.035	0.037	0.036	0.0708	3	0.039	0.039	0.046	0.048	0.058	0.058	35	0	180	0	3600	0	--	--
	bis(p-Chlorophenyl) disulfide	mg/kg	107	0%	107	0.114	0.21	0.21	0.21	0.21	0.23	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	bis(p-Chlorophenyl) sulfone	mg/kg	107	0%	107	0.114	0.34	0.34	0.33	0.35	0.38	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Carbazole	mg/kg	107	0%	107	0.0104	0.034	0.035	0.034	0.035	0.039	0	--	--	--	--	--	--	24	--	0.03	--	0.6	--	--	--
	Dibenzofuran	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	160	--	--	--	--	--	--	--
	Dibutyl phthalate	mg/kg	107	0%	107	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	6110	--	270	--	5400	--	--	--
	Dichloromethyl ether	mg/kg	5	0%	5	0.114	0.11	0.12	0.12	0.12	0.117	0	--	--	--	--	--	--	0.00024	--	--	--	--	--	--	--
	Diethyl phthalate	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	48900	--	--	--	--	--	--	--
	Dimethyl phthalate	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	100000	--	--	--	--	--	--	--
	Di-n-octyl phthalate	mg/kg	107	0%	107	0.015	0.015	0.015	0.018	0.016	0.0708	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Diphenyl sulfone	mg/kg	107	0%	107	0.0067	0.0068	0.0069	0.012	0.0071	0.117	0	--	--	--	--	--	--	180	--	--	--	--	--	--	--
	Diphenylamine	mg/kg	5	0%	5	0.0691	0.069	0.07	0.07	0.071	0.0708	0	--	--	--	--	--	--	1530	--	--	--	--	--	--	--
	Fluoranthene	mg/kg	107	0%	107	0.0104	0.034	0.035	0.034	0.035	0.039	0	--	--	--	--	--	--	2290	--	210	--	4200	--	--	--
	Fluorene	mg/kg	107	0%	107	0.0104	0.034	0.035	0.034	0.035	0.039	0	--	--	--	--	--	--	3130	--	28	--	560	--	--	--
	Hexachloro-1,3-butadiene	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	6.2	--	0.1	--	2	--	--	--
	Hexachlorobenzene	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	0.3	--	0.1	--	2	--	--	--
	Hexachlorocyclopentadiene	mg/kg	107	0%	107	0.0691	0.34	0.34	0.33	0.35	0.38	0	--	--	--	--	--	--	370	--	20	--	400	--	--	--
	Hexachloroethane	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	35	--	0.02	--	0.4	--	--	--
	Hydroxymethyl phthalimide	mg/kg	107	0%	107	0.043	0.044	0.045	0.049	0.046	0.117	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isophorone	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	510	--	0.03	--	0.6	--	--	--
	Naphthalene	mg/kg	107	0%	107	0.0104	0.034	0.035	0.034	0.035	0.039	0	--	--	--	--	--	--	3.1	--	4	--	80	--	--	--
	Nitrobenzene	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	2.7	--	0.007	--	0.14	--	--	--
	N-nitrosodi-n-propylamine	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	0.069	--	0.000002	--	0.00004	--	--	--
	N-nitrosodiphenylamine	mg/kg	102	0%	102	0.033	0.034	0.035	0.035	0.035	0.039	0	--	--	--	--	--	--	99	--	0.06	--	1.2	--	--	--
	o-Cresol	mg/kg	107	0%	107	0.0691	0.12	0.12	0.12	0.13	0.14	0	--	--	--	--	--	--	3060	--	0.8	--	16	--	--	--
	Octachlorostyrene	mg/kg	107	0%	107	0.033	0.034	0.035	0.039	0.035	0.117	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	p-Chloroaniline	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	240	--	0.03	--	0.6	--	--	--
	p-Chlorothiophenol	mg/kg	107	0%	107	0.114	0.19	0.19	0.19	0.2	0.21	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pentachlorobenzene	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	49	--	--	--	--	--	--	--
	Pentachlorophenol	mg/kg	107	0%	107	0.0691	0.34	0.34	0.33	0.35	0.38	0	--	--	--	--	--	--	3	--	0.001	--	0.02	--	--	--
	Phenol	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	18300	--	5	--	100	--	--	--
	Phenyl Disulfide	mg/kg	107	0%	107	0.029	0.029	0.03	0.034	0.031	0.117	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenyl Sulfide	mg/kg	107	0%	107	0.0035	0.0036	0.0037	0.0089	0.0038	0.117	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phthalic acid	mg/kg	107	0%	107	0.114	0.26	0.26	0.25	0.26	0.29	0	--	--	--	--	--	--	100000	--	--	--	--	--	--	--
	p-Nitroaniline	mg/kg	107	0%	107	0.0691	0.34	0.34	0.33	0.35	0.38	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pyridine	mg/kg	107	0%	107	0.033	0.034	0.035	0.037	0.035	0.0708	0	--	--	--	--	--	--	61	--	--	--	--	--	--	--
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	mg/kg	102	1%	101	0.00018	0.00018	0.00019	0.00019	0.00019	0.00021	1	0.036	--	0.036	0.036	--	0.036	3.7	0	--	--	--	--	--	--
	1,1,1-Trichloroethane	mg/kg	102	0%	102	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0	--	--	--	--	--	--	1390	--	0.1	--	2	--	--	--
	1,1,2,2-Tetrachloroethane	mg/kg	102	0%	102	0.000078	0.00008	0.000081	0.000082	0.000083	0.00009	0	--	--	--	--	--	--	0.47	--	0.0002	--	0.004	--	--	--
	1,1,2-Trichloroethane	mg/kg	102	0%	102	0.000067	0.000069	0.00007	0.00007	0.000071	0.000077	0	--	--	--	--	--	--	1	--	0.0009	--	0.018	--	--	--
	1,1-Dichloroethane	mg/kg	102	0%	102	0.00007	0.000072	0.000073	0.000073	0.000074	0.000081	0	--	--	--	--	--	--	4.2	--	1	--	20	--	--	--
	1,1-Dichloroethylene	mg/kg	102	0%	102	0.00012	0.00012	0.00012	0.00012	0.00013	0.00014	0	--	--	--	--	--	--	280	--	0.003	--	0.06	--	--	--
	1,1-Dichloropropene	mg/kg	102	0%	102	0.000087	0.000089	0.00009	0.000091	0.000092	0.0001	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichlorobenzene	mg/kg	102	0%	102	0.00039	0.0004	0.0004	0.00041	0.00041	0.00045	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2,3-Trichloropropane	mg/kg	102	0%	102	0.00025	0.00026	0.00026	0.00026	0.00026	0.00029	0	--	--	--	--	--	--	0.32	--	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	mg/kg	102	0%	102	0.00033	0.00034	0.00034	0.00035	0.00035	0.00038	0	--	--	--	--	--	--	140	--	0.3	--	6	--	--	--
	1,2,4-Trimethylbenzene	mg/kg	102	18%	84	0.00013	0.00014	0.00014	0.00094	0.00014	0.0058	18	0.00038	0.00045	0.00051	0.00057	0.00058	0.0015	140	0	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	102	0%	102	0.00021	0.00022	0.00022	0.00022	0.00022	0.00024	0	--	--	--	--	--	--	0.01	--	--	--	--	--	--	--
	1,2-Dichlorobenzene	mg/kg	102	0%	102	0.00012	0.00012	0.00013	0.00013	0.00013	0.00014	0	--	--	--	--	--	--	370	--	0.9	--	18	--	--	--

TABLE 4
FINAL HUMAN HEALTH RISK ASSESSMENT SOIL DATASET RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 5 of 6)

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data							Detected Data[1]							Resident Soil BCL	Count of Detects > BCL	LBCL (DAF 1)	Count of Detects > DAF 1	LBCL (DAF 20)	Count of Detects > DAF 20	Max. Bkgrnd[2]	Count of Detects > Bkgrnd
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max								
Volatile Organic Compounds	1,2-Dichloroethane	mg/kg	102	0%	102	0.000066	0.000068	0.000069	0.000069	0.00007	0.000076	0	--	--	--	--	--	--	0.43	--	0.001	--	0.02	--	--	--
	1,2-Dichloroethylene	mg/kg	102	0%	102	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,2-Dichloropropane	mg/kg	102	0%	102	0.00011	0.00011	0.00011	0.00011	0.00012	0.00013	0	--	--	--	--	--	--	0.82	--	0.001	--	0.02	--	--	--
	1,3,5-Trichlorobenzene	mg/kg	102	0%	102	0.00037	0.00038	0.00038	0.00039	0.00039	0.00043	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	mg/kg	102	1%	101	0.000097	0.000099	0.0001	0.0001	0.0001	0.00011	1	0.00053	--	0.00053	0.00053	--	0.00053	50	0	--	--	--	--	--	--
	1,3-Dichlorobenzene	mg/kg	102	0%	102	0.00013	0.00013	0.00014	0.00014	0.00014	0.00015	0	--	--	--	--	--	--	230	--	--	--	--	--	--	--
	1,3-Dichloropropane	mg/kg	102	0%	102	0.000051	0.000052	0.000053	0.000053	0.000054	0.000059	0	--	--	--	--	--	--	1130	--	0.001	--	0.02	--	--	--
	1,4-Dichlorobenzene	mg/kg	102	0%	102	0.00014	0.00014	0.00014	0.00014	0.00014	0.00016	0	--	--	--	--	--	--	2.6	--	0.1	--	2	--	--	--
	1-Nonanal	mg/kg	102	2%	100	0.00047	0.00048	0.00049	0.00049	0.0005	0.00054	2	0.00067	--	0.0027	0.0027	--	0.0047	--	--	--	--	--	--	--	--
	2,2,3-Trimethylbutane	mg/kg	102	0%	102	0.00021	0.00022	0.00022	0.00022	0.00022	0.00024	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,2-Dichloropropane	mg/kg	102	0%	102	0.00023	0.00024	0.00024	0.00024	0.00025	0.00027	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,2-Dimethylpentane	mg/kg	102	0%	102	0.00028	0.00028	0.00029	0.00029	0.00029	0.00032	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,3-Dimethylpentane	mg/kg	102	0%	102	0.00022	0.00023	0.00023	0.00024	0.00024	0.00026	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2,4-Dimethylpentane	mg/kg	102	0%	102	0.00019	0.0002	0.0002	0.0002	0.0002	0.00022	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-Chlorotoluene	mg/kg	102	0%	102	0.00025	0.00025	0.00026	0.00026	0.00026	0.00029	0	--	--	--	--	--	--	510	--	--	--	--	--	--	--
	2-Nitropropane	mg/kg	102	0%	102	0.0006	0.00062	0.00063	0.00063	0.00064	0.0007	0	--	--	--	--	--	--	0.068	--	--	--	--	--	--	--
	2-Phenylbutane	mg/kg	102	0%	102	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0	--	--	--	--	--	--	220	--	--	--	--	--	--	--
	3,3-Dimethylpentane	mg/kg	102	0%	102	0.0002	0.00021	0.00021	0.00021	0.00021	0.00023	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3-Ethylpentane	mg/kg	102	0%	102	0.00021	0.00022	0.00022	0.00022	0.00022	0.00024	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3-Methylhexane	mg/kg	102	0%	102	0.00014	0.00014	0.00015	0.00015	0.00015	0.00016	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4-Chlorotoluene	mg/kg	102	0%	102	0.00017	0.00018	0.00018	0.00018	0.00018	0.0002	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Acetone	mg/kg	102	15%	87	0.0017	0.0018	0.0018	0.0087	0.021	0.09	15	0.012	0.016	0.021	0.035	0.036	0.16	60000	0	0.8	0	16	0	--	--
	Acetonitrile	mg/kg	102	1%	101	0.0054	0.0055	0.0056	0.0057	0.0057	0.0063	1	0.033	--	0.033	0.033	--	0.033	1470	0	--	--	--	--	--	--
	Benzene	mg/kg	102	1%	101	0.000087	0.000089	0.00009	0.000091	0.000092	0.0001	1	0.00055	--	0.00055	0.00055	--	0.00055	0.81	0	0.002	0	0.04	0	--	--
	Bromobenzene	mg/kg	102	0%	102	0.00012	0.00012	0.00013	0.00013	0.00013	0.00014	0	--	--	--	--	--	--	64	--	--	--	--	--	--	--
	Bromodichloromethane	mg/kg	102	0%	102	0.00021	0.00022	0.00022	0.00022	0.00023	0.00025	0	--	--	--	--	--	--	10	--	0.03	--	0.6	--	--	--
	Bromomethane	mg/kg	102	0%	102	0.00013	0.00013	0.00014	0.00014	0.00014	0.00015	0	--	--	--	--	--	--	8.7	--	0.01	--	0.2	--	--	--
	Carbon disulfide	mg/kg	102	0%	102	0.00012	0.00012	0.00013	0.00033	0.00013	0.0055	0	--	--	--	--	--	--	720	--	2	--	40	--	--	--
	Carbon tetrachloride	mg/kg	102	0%	102	0.00021	0.00021	0.00021	0.00022	0.00022	0.00024	0	--	--	--	--	--	--	0.3	--	0.003	--	0.06	--	--	--
	CFC-11	mg/kg	102	0%	102	0.00022	0.00022	0.00023	0.00023	0.00023	0.00025	0	--	--	--	--	--	--	880	--	--	--	--	--	--	--
	CFC-12	mg/kg	102	0%	102	0.00029	0.0003	0.0003	0.0003	0.00031	0.00033	0	--	--	--	--	--	--	220	--	--	--	--	--	--	--
	Chlorinated fluorocarbon (Freon 113)	mg/kg	102	0%	102	0.00015	0.00015	0.00015	0.00015	0.00015	0.00017	0	--	--	--	--	--	--	5550	--	--	--	--	--	--	--
	Chlorobenzene	mg/kg	102	0%	102	0.00011	0.00011	0.00011	0.00011	0.00011	0.00012	0	--	--	--	--	--	--	270	--	0.07	--	1.4	--	--	--
	Chlorobromomethane	mg/kg	102	0%	102	0.00023	0.00023	0.00023	0.00024	0.00024	0.00026	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Chlorodibromomethane	mg/kg	102	0%	102	0.00012	0.00012	0.00012	0.00012	0.00012	0.00014	0	--	--	--	--	--	--	1.1	--	0.02	--	0.4	--	--	--
	Chloroethane	mg/kg	102	0%	102	0.00046	0.00047	0.00048	0.00048	0.00049	0.00053	0	--	--	--	--	--	--	220	--	--	--	--	--	--	--
	Chloroform	mg/kg	102	0%	102	0.0001	0.0001	0.0001	0.00015	0.00011	0.0053	0	--	--	--	--	--	--	0.31	--	0.03	--	0.6	--	--	--
	Chloromethane	mg/kg	102	0%	102	0.00027	0.00027	0.00028	0.00028	0.00028	0.00031	0	--	--	--	--	--	--	1.6	--	--	--	--	--	--	--
	cis-1,2-Dichloroethylene	mg/kg	102	0%	102	0.000054	0.000055	0.000056	0.000057	0.000057	0.000062	0	--	--	--	--	--	--	780	--	0.02	--	0.4	--	--	--
	cis-1,3-Dichloropropylene	mg/kg	102	0%	102	0.0001	0.0001	0.0001	0.0001	0.00011	0.00012	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cymene	mg/kg	102	0%	102	0.00012	0.00013	0.00013	0.00013	0.00013	0.00014	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Dibromomethane	mg/kg	102	0%	102	0.00017	0.00017	0.00017	0.00017	0.00018	0.00019	0	--	--	--	--	--	--	780	--	--	--	--	--	--	--
	Dichloromethane	mg/kg	102	15%	87	0.00069	0.00071	0.00073	0.0027	0.00079	0.022	15	0.0046	0.0075	0.0091	0.0099	0.011	0.019	11	0	0.001	15	0.02	0	--	--
	Ethanol	mg/kg	102	3%	99	0.047	0.048	0.049	0.05	0.05	0.055	3	0.19	0.19	0.29	0.32	0.47	0.47	--	--	--	--	--	--	--	--
	Ethylbenzene	mg/kg	102	1%	101	0.000058	0.000059	0.00006	0.000061	0.000061	0.000067	1	0.00037	--	0.00037	0.00037	--	0.00037	3.8	0	0.7	0	14	0	--	--
	Hexane, 2-methyl-	mg/kg	102	0%	102	0.0002	0.00021	0.00021	0.00021	0.00021	0.00023	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Isopropylbenzene	mg/kg	102	0%	102	0.0001	0.00011	0.00011	0.00011	0.00011	0.00012	0	--	--	--	--	--	--	370	--	--	--	--	--	--	--
	m,p-Xylene	mg/kg	102	1%	101	0.00017	0.00017	0.00017	0.00017	0.00018	0.00019	1	0.00088	--	0.00088	0.00088	--	0.00088	210	0	10	0	200	0	--	--
	Methyl disulfide	mg/kg	102	0%	102	0.00018	0.00018	0.00018	0.00018	0.00019	0.0002	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl ethyl ketone	mg/kg	102	4%	98	0.00087	0.00089	0.0009	0.00091	0.00092	0.001	4	0.0013	0.0023	0.0065	0.0081	0.015	0.018	32100	0	--	--	--	--	--	--
	Methyl iodide	mg/kg	102	0%	102	0.00012	0.00013	0.00013	0.00013	0.00013	0.00014	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Methyl isobutyl ketone	mg/kg	102	0%	102	0.00029	0.0003	0.0003	0.0003	0.0003	0.00033	0	--	--	--	--	--	--	5800	--	--	--	--	--	--	--
	Methyl n-butyl ketone	mg/kg	102	0%	102	0.00024	0.00024	0.00025	0.00025	0.00025	0.00027	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MTBE (Methyl tert-butyl ether)	mg/kg	102	0%	102	0.000089	0.000091	0.000093	0.000093	0.000094	0.0001	0	--	--	--	--	--	--	39	--	--	--	--	--	--	--
	n-Butyl benzene	mg/kg	102	0%	102	0.00018	0.00018	0.00019	0.00019	0.00019	0.00021	0	--	--	--	--	--	--	240	--	--	--	--	--	--	--
	n-Heptane	mg/kg	102	0%	102	0.00016	0.00017	0.00017	0.00017	0.00017	0.00019	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Propyl benzene	mg/kg	102	0%	102	0.00011	0.00011	0.00011	0.00011	0.00012	0.00013	0	--	--	--	--	--	--	240	--	--	--	--	--	--	--
	o-Xylene	mg/kg	102	0%	102	0.000076	0.000078	0.000079	0.00008	0.00008	0.000088	0	--	--	--	--	--	--	280	--	9	--	180	--	--	--

TABLE 4
FINAL HUMAN HEALTH RISK ASSESSMENT SOIL DATASET RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data							Detected Data[1]							Resident Soil BCL	Count of Detects > BCL	LBCL (DAF 1)	Count of Detects > DAF 1	LBCL (DAF 20)	Count of Detects > DAF 20	Max. Bkgrnd[2]	Count of Detects > Bkgrnd
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max								
Volatile Organic Compounds	Styrene (monomer)	mg/kg	102	0%	102	0.00017	0.00018	0.00018	0.00018	0.00018	0.0002	0	--	--	--	--	--	--	1730	--	0.2	--	4	--	--	--
	tert-Butyl benzene	mg/kg	102	0%	102	0.0001	0.0001	0.0001	0.0001	0.00011	0.00012	0	--	--	--	--	--	--	390	--	--	--	--	--	--	--
	Tetrachloroethylene	mg/kg	102	0%	102	0.000087	0.000089	0.00009	0.000091	0.000092	0.0001	0	--	--	--	--	--	--	0.62	--	0.003	--	0.06	--	--	--
	Toluene	mg/kg	102	3%	99	0.00032	0.00033	0.00034	0.00073	0.00035	0.0055	3	0.0005	0.0005	0.00065	0.00088	0.0015	0.0015	520	0	0.6	0	12	0	--	--
	trans-1,2-Dichloroethylene	mg/kg	102	0%	102	0.00009	0.000092	0.000094	0.000094	0.000095	0.0001	0	--	--	--	--	--	--	120	--	0.03	--	0.6	--	--	--
	trans-1,3-Dichloropropylene	mg/kg	102	0%	102	0.0001	0.0001	0.0001	0.0001	0.00011	0.00012	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Tribromomethane	mg/kg	102	0%	102	0.000059	0.00006	0.000061	0.000062	0.000062	0.000068	0	--	--	--	--	--	--	62	--	0.04	--	0.8	--	--	--
	Trichloroethylene	mg/kg	102	0%	102	0.0001	0.00011	0.00011	0.00011	0.00011	0.00012	0	--	--	--	--	--	--	1.1	--	0.003	--	0.06	--	--	--
	Vinyl acetate	mg/kg	101	0%	101	0.00024	0.00025	0.00025	0.00025	0.00025	0.00028	0	--	--	--	--	--	--	990	--	8	--	160	--	--	--
	Vinyl chloride	mg/kg	102	0%	102	0.00011	0.00011	0.00012	0.00012	0.00012	0.00013	0	--	--	--	--	--	--	0.35	--	0.0007	--	0.014	--	--	--
	Xylenes (total)	mg/kg	102	0%	102	0.00023	0.00024	0.00024	0.00024	0.00024	0.00027	0	--	--	--	--	--	--	210	--	10	--	200	--	--	--

Notes:

This table includes only data included in the risk assessment. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in the tables in Attachment B, which include all data, regardless of status.

The values used are simply a comparison to NDEP BCL values for information purposes only.

Because both non-detect and detected radionuclides have reported activity levels, calculated summary statistics (and exceedances of comparison levels) are presented as detected regardless of the lab detect flag. Lab detect flags are represented by the censored (non-detect) and detect count fields in the table.

Values for Q1, median, mean, and Q3 are rounded to 2 significant figures. BCLs are rounded to 3 significant figures.

BCL = Basic Comparison Levels (BCLs) from NDEP 2010a. Values used are residential soil BCLs.

LBCL = Leaching-based BCLs from NDEP 2010a.

Max = Maximum

Min = Minimum

Q1 = 1st quartile (25th percentile)

Q3 = 3rd quartile (75th percentile)

(1) 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 dataset.

(2) Values used are the maximum from the Supplemental Shallow Background report (BRC and ERM 2009).

(3) Asbestos results shown are for long protocol structures (>10um). The minimum and maximum values represent the number of protocol structures in an individual sample. The detect count represents the number of samples with at least one detected protocol structure, not the total number of structures.

(4) TCDD TEQ values are calculated from congener-specific (dioxins, furans, and PBCs) concentrations. An individual TCDD TEQ value may include detect and non-detect congeners. Therefore, the number of detects and non-detects, and a frequency of detection for TCDD TEQ are not presented.

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

TABLE 5
SOIL VAPOR FLUX SAMPLE ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

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 5
SOIL VAPOR FLUX SAMPLE ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

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 5
SOIL VAPOR FLUX SAMPLE ANALYSES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

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-Dichlorobenzene	95-50-1	0.005	0.026	0.031	0.16
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
1,3-Dichlorobenzene	541-73-1	0.005	0.026	0.031	0.16
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

TABLE 6
SOIL VAPOR FLUX SAMPLE RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data[1]							Detected Data[2]						
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max
Volatile Organic Compounds (Full Scan)	1,1,1,2-Tetrachloroethane	μg/m^2-min	22	0%	22	0.024	0.024	0.024	0.024	0.024	0.024	0	--	--	--	--	--	--
	1,1,1-Trichloroethane	μg/m^2-min	22	0%	22	0.019	0.019	0.019	0.019	0.019	0.019	0	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	μg/m^2-min	22	0%	22	0.024	0.024	0.024	0.024	0.024	0.024	0	--	--	--	--	--	--
	1,1,2-Trichloroethane	μg/m^2-min	22	0%	22	0.019	0.019	0.019	0.019	0.019	0.019	0	--	--	--	--	--	--
	1,1-Dichloroethane	μg/m^2-min	22	0%	22	0.014	0.014	0.014	0.014	0.014	0.014	0	--	--	--	--	--	--
	1,1-Dichloroethylene	μg/m^2-min	22	0%	22	0.014	0.014	0.014	0.014	0.014	0.014	0	--	--	--	--	--	--
	1,1-Dichloropropene	μg/m^2-min	22	0%	22	0.012	0.012	0.012	0.012	0.012	0.012	0	--	--	--	--	--	--
	1,2,3-Trichloropropane	μg/m^2-min	22	0%	22	0.019	0.019	0.019	0.019	0.019	0.019	0	--	--	--	--	--	--
	1,2,4-Trichlorobenzene	μg/m^2-min	22	36%	14	0.048	0.051	0.051	0.051	0.051	0.051	8	0.048	0.055	0.071	0.073	0.085	0.12
	1,2,4-Trimethylbenzene	μg/m^2-min	22	14%	19	0.017	0.017	0.017	0.017	0.017	0.017	3	0.021	0.021	0.026	0.031	0.045	0.045
	1,2-Dibromo-3-chloropropane	μg/m^2-min	22	5%	21	0.15	0.16	0.16	0.16	0.16	0.16	1	0.17	--	0.17	0.17	--	0.17
	1,2-Dibromoethane	μg/m^2-min	22	0%	22	0.027	0.027	0.027	0.027	0.027	0.027	0	--	--	--	--	--	--
	1,2-Dichlorobenzene	μg/m^2-min	22	5%	21	0.021	0.021	0.021	0.021	0.021	0.021	1	0.032	--	0.032	0.032	--	0.032
	1,2-Dichloroethane	μg/m^2-min	22	0%	22	0.014	0.014	0.014	0.014	0.014	0.014	0	--	--	--	--	--	--
	1,2-Dichloropropane	μg/m^2-min	22	0%	22	0.016	0.016	0.016	0.016	0.016	0.016	0	--	--	--	--	--	--
	1,3,5-Trimethylbenzene	μg/m^2-min	22	14%	19	0.017	0.017	0.017	0.017	0.017	0.017	3	0.017	0.017	0.019	0.03	0.055	0.055
	1,3-Dichlorobenzene	μg/m^2-min	22	0%	22	0.021	0.021	0.021	0.021	0.021	0.021	0	--	--	--	--	--	--
	1,3-Dichloropropane	μg/m^2-min	22	0%	22	0.012	0.014	0.014	0.014	0.014	0.014	0	--	--	--	--	--	--
	1,4-Dichlorobenzene	μg/m^2-min	22	5%	21	0.021	0.021	0.021	0.021	0.021	0.021	1	0.042	--	0.042	0.042	--	0.042
	1,4-Dioxane	μg/m^2-min	22	23%	17	0.0097	0.0097	0.0097	0.0098	0.0097	0.011	5	0.017	0.017	0.028	0.063	0.13	0.17
	2,2-Dichloropropane	μg/m^2-min	22	0%	22	0.016	0.016	0.016	0.016	0.016	0.016	0	--	--	--	--	--	--
	2-Methyl-1-propanol	μg/m^2-min	22	9%	20	0.024	0.025	0.026	0.026	0.026	0.026	2	0.059	--	0.074	0.074	--	0.089
	2-Phenylbutane	μg/m^2-min	22	0%	22	0.017	0.017	0.017	0.017	0.017	0.019	0	--	--	--	--	--	--
	Acetone	μg/m^2-min	22	95%	1	0.0064	--	0.0064	0.0064	--	0.0064	21	0.17	0.24	0.35	0.46	0.63	1.6
	Acetonitrile	μg/m^2-min	22	36%	14	0.014	0.014	0.014	0.014	0.014	0.014	8	0.054	0.091	0.17	0.23	0.37	0.54
	Benzene	μg/m^2-min	22	32%	15	0.011	0.011	0.011	0.011	0.011	0.011	7	0.011	0.011	0.016	0.019	0.023	0.041
	Benzyl chloride	μg/m^2-min	22	5%	21	0.014	0.014	0.014	0.015	0.016	0.016	1	0.024	--	0.024	0.024	--	0.024
	Bromodichloromethane	μg/m^2-min	22	0%	22	0.015	0.018	0.018	0.018	0.018	0.018	0	--	--	--	--	--	--
	Bromomethane	μg/m^2-min	22	9%	20	0.013	0.013	0.013	0.013	0.013	0.013	2	0.03	--	0.07	0.07	--	0.11
	Carbon disulfide	μg/m^2-min	22	50%	11	0.0084	0.0084	0.0084	0.0084	0.0084	0.0084	11	0.013	0.017	0.029	0.056	0.057	0.27
	Carbon tetrachloride	μg/m^2-min	22	5%	21	0.022	0.022	0.022	0.022	0.022	0.022	1	0.099	--	0.099	0.099	--	0.099
	Freon 11	μg/m^2-min	22	14%	19	0.019	0.019	0.019	0.019	0.019	0.019	3	0.019	0.019	0.024	0.025	0.032	0.032
	Freon 12	μg/m^2-min	22	0%	22	0.017	0.017	0.017	0.017	0.017	0.017	0	--	--	--	--	--	--
	Freon 113	μg/m^2-min	22	55%	10	0.026	0.026	0.026	0.026	0.026	0.026	12	0.027	0.03	0.034	0.036	0.04	0.053
	Chlorobenzene	μg/m^2-min	22	0%	22	0.016	0.016	0.016	0.016	0.016	0.016	0	--	--	--	--	--	--
	Chlorobromomethane	μg/m^2-min	22	5%	21	0.018	0.018	0.018	0.018	0.018	0.018	1	0.018	--	0.018	0.018	--	0.018
	Chlorodibromomethane	μg/m^2-min	22	0%	22	0.026	0.026	0.026	0.026	0.026	0.026	0	--	--	--	--	--	--

TABLE 6
SOIL VAPOR FLUX SAMPLE RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data[1]							Detected Data[2]						
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max
Volatile Organic Compounds (Full Scan)	Chloroethane	$\mu g/m^2$-min	22	5%	21	0.0092	0.0092	0.0092	0.0092	0.0092	0.0092	1	0.028	--	0.028	0.028	--	0.028
	Chloroform	$\mu g/m^2$-min	22	36%	14	0.017	0.017	0.017	0.017	0.017	0.017	8	0.019	0.025	0.047	0.056	0.076	0.13
	Chloromethane	$\mu g/m^2$-min	22	86%	3	0.0072	0.0072	0.0072	0.0072	0.0072	0.0072	19	0.0096	0.017	0.026	0.036	0.043	0.099
	cis-1,2-Dichloroethylene	$\mu g/m^2$-min	22	0%	22	0.014	0.014	0.014	0.014	0.014	0.014	0	--	--	--	--	--	--
	cis-1,3-Dichloropropylene	$\mu g/m^2$-min	22	0%	22	0.016	0.016	0.016	0.016	0.016	0.016	0	--	--	--	--	--	--
	Cymene	$\mu g/m^2$-min	22	27%	16	0.017	0.017	0.017	0.017	0.017	0.019	6	0.019	0.019	0.024	0.085	0.14	0.35
	Dibromomethane	$\mu g/m^2$-min	22	0%	22	0.022	0.022	0.022	0.022	0.022	0.022	0	--	--	--	--	--	--
	Dichloromethane	$\mu g/m^2$-min	22	9%	20	0.012	0.012	0.012	0.012	0.012	0.012	2	0.021	--	0.024	0.024	--	0.027
	Ethanol	$\mu g/m^2$-min	22	55%	10	0.015	0.015	0.015	0.015	0.016	0.016	12	0.021	0.046	0.076	0.077	0.11	0.16
	Ethylbenzene	$\mu g/m^2$-min	22	5%	21	0.015	0.015	0.015	0.015	0.015	0.015	1	0.048	--	0.048	0.048	--	0.048
	Hexachloro-1,3-butadiene	$\mu g/m^2$-min	22	0%	22	0.07	0.074	0.074	0.074	0.074	0.074	0	--	--	--	--	--	--
	Isopropylbenzene	$\mu g/m^2$-min	22	14%	19	0.015	0.017	0.017	0.017	0.017	0.017	3	0.017	0.017	0.019	0.03	0.055	0.055
	m & p-Xylene	$\mu g/m^2$-min	22	18%	18	0.028	0.03	0.03	0.03	0.03	0.03	4	0.033	0.033	0.049	0.065	0.11	0.13
	Methyl ethyl ketone	$\mu g/m^2$-min	22	36%	14	0.0079	0.0079	0.0079	0.0079	0.0079	0.0079	8	0.014	0.019	0.036	0.073	0.12	0.24
	Methyl iodide	$\mu g/m^2$-min	22	5%	21	0.04	0.04	0.04	0.04	0.04	0.04	1	0.17	--	0.17	0.17	--	0.17
	Methyl isobutyl ketone	$\mu g/m^2$-min	22	41%	13	0.011	0.012	0.013	0.013	0.013	0.013	9	0.013	0.015	0.017	0.019	0.025	0.03
	Methyl n-butyl ketone	$\mu g/m^2$-min	22	64%	8	0.011	0.011	0.011	0.011	0.011	0.013	14	0.013	0.016	0.02	0.028	0.034	0.085
	Methyl tert-butyl ether	$\mu g/m^2$-min	22	0%	22	0.008	0.009	0.0093	0.009	0.0093	0.0093	0	--	--	--	--	--	--
	Naphthalene	$\mu g/m^2$-min	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	n-Butyl benzene	$\mu g/m^2$-min	22	0%	22	0.017	0.017	0.017	0.017	0.017	0.019	0	--	--	--	--	--	--
	n-Heptane	$\mu g/m^2$-min	22	100%	0	--	--	--	--	--	--	22	0.013	0.017	0.022	0.024	0.026	0.068
	n-Propyl benzene	$\mu g/m^2$-min	22	0%	22	0.015	0.015	0.015	0.015	0.015	0.015	0	--	--	--	--	--	--
	o-Xylene	$\mu g/m^2$-min	22	14%	19	0.015	0.015	0.015	0.015	0.015	0.015	3	0.018	0.018	0.027	0.036	0.062	0.062
	Styrene (monomer)	$\mu g/m^2$-min	22	5%	21	0.015	0.015	0.015	0.015	0.015	0.015	1	0.018	--	0.018	0.018	--	0.018
	tert-Butyl benzene	$\mu g/m^2$-min	22	0%	22	0.017	0.017	0.017	0.017	0.017	0.017	0	--	--	--	--	--	--
	Tetrachloroethylene	$\mu g/m^2$-min	22	0%	22	0.023	0.023	0.023	0.023	0.023	0.023	0	--	--	--	--	--	--
	Toluene	$\mu g/m^2$-min	22	59%	9	0.013	0.013	0.013	0.013	0.013	0.013	13	0.013	0.014	0.02	0.023	0.022	0.088
	trans-1,2-Dichloroethylene	$\mu g/m^2$-min	22	0%	22	0.011	0.011	0.011	0.011	0.011	0.011	0	--	--	--	--	--	--
	trans-1,3-Dichloropropylene	$\mu g/m^2$-min	22	0%	22	0.016	0.016	0.016	0.016	0.016	0.016	0	--	--	--	--	--	--
	Tribromomethane	$\mu g/m^2$-min	22	0%	22	0.032	0.032	0.032	0.032	0.032	0.032	0	--	--	--	--	--	--
	Trichloroethylene	$\mu g/m^2$-min	22	0%	22	0.019	0.019	0.019	0.019	0.019	0.019	0	--	--	--	--	--	--
	Vinyl acetate	$\mu g/m^2$-min	22	27%	16	0.0095	0.0095	0.0095	0.0095	0.0095	0.0095	6	0.014	0.014	0.015	0.019	0.024	0.034
	Vinyl chloride	$\mu g/m^2$-min	22	0%	22	0.0089	0.0089	0.0089	0.0089	0.0089	0.0089	0	--	--	--	--	--	--
	1,1,2,2-Tetrachloroethane	$\mu g/m^2$-min	22	0%	22	0.0016	0.0018	0.0018	0.0018	0.0018	0.0021	0	--	--	--	--	--	--

TABLE 6
SOIL VAPOR FLUX SAMPLE RESULTS SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter of Interest	Compound List	Units	Total Count	Detect Freq.	Censored (Non-Detect) Data[(1)]							Detected Data[(2)]						
					Count	Min	Q1	Median	Mean	Q3	Max	Count	Min	Q1	Median	Mean	Q3	Max
Volatile Organic Compounds (SIM)	1,1,2-Trichloroethane	μg/m^2-min	22	0%	22	0.0013	0.0015	0.0015	0.0015	0.0015	0.0017	0	--	--	--	--	--	--
	1,2,3-Trichloropropane	μg/m^2-min	22	0%	22	0.0012	0.0012	0.0012	0.0013	0.0014	0.0016	0	--	--	--	--	--	--
	1,2-Dibromo-3-chloropropane	μg/m^2-min	22	0%	22	0.0048	0.0052	0.0052	0.0054	0.0056	0.0067	0	--	--	--	--	--	--
	1,2-Dibromoethane	μg/m^2-min	22	5%	21	0.0018	0.0021	0.0021	0.0021	0.0021	0.0027	1	0.027	--	0.027	0.027	--	0.027
	1,2-Dichlorobenzene	μg/m^2-min	22	0%	22	0.0014	0.0014	0.0016	0.0016	0.0016	0.0018	0	--	--	--	--	--	--
	1,2-Dichloroethane	μg/m^2-min	22	36%	14	0.00093	0.0011	0.0011	0.0011	0.0011	0.0012	8	0.0011	0.0011	0.0013	0.0022	0.0032	0.0059
	1,2-Dichloropropane	μg/m^2-min	22	0%	22	0.0011	0.0012	0.0012	0.0012	0.0012	0.0016	0	--	--	--	--	--	--
	1,3-Dichlorobenzene	μg/m^2-min	22	0%	22	0.0014	0.0016	0.0016	0.0016	0.0016	0.0018	0	--	--	--	--	--	--
	1,4-Dichlorobenzene	μg/m^2-min	22	9%	20	0.0014	0.0016	0.0016	0.0016	0.0016	0.0018	2	0.0025	--	0.0056	0.0056	--	0.0086
	Benzene	μg/m^2-min	22	36%	14	0.00074	0.00086	0.00086	0.00088	0.00086	0.0011	8	0.006	0.0061	0.0067	0.0096	0.012	0.023
	Benzyl chloride	μg/m^2-min	22	18%	18	0.001	0.001	0.001	0.001	0.001	0.0012	4	0.0014	0.0015	0.0019	0.0019	0.0024	0.0024
	Bromodichloromethane	μg/m^2-min	22	0%	22	0.001	0.001	0.001	0.0011	0.0013	0.0015	0	--	--	--	--	--	--
	Carbon tetrachloride	μg/m^2-min	22	95%	1	0.0015	--	0.0015	0.0015	--	0.0015	21	0.0029	0.004	0.0063	0.013	0.013	0.12
	Chlorodibromomethane	μg/m^2-min	22	0%	22	0.0013	0.0016	0.0016	0.0016	0.0016	0.002	0	--	--	--	--	--	--
	Chloroform	μg/m^2-min	22	100%	0	--	--	--	--	--	--	22	0.0022	0.0053	0.0096	0.018	0.015	0.081
	Dichloromethane	μg/m^2-min	22	73%	6	0.0008	0.0009	0.00093	0.00095	0.001	0.0012	16	0.0012	0.0015	0.0019	0.0032	0.0028	0.012
	Hexachloro-1,3-butadiene	μg/m^2-min	22	0%	22	0.0049	0.0053	0.0057	0.0056	0.0057	0.007	0	--	--	--	--	--	--
	Naphthalene	μg/m^2-min	22	0%	22	0.0026	0.0028	0.0028	0.0029	0.003	0.0036	0	--	--	--	--	--	--
	Tetrachloroethylene	μg/m^2-min	22	50%	11	0.0016	0.0018	0.0018	0.0018	0.0018	0.0021	11	0.0018	0.0021	0.0023	0.0035	0.0042	0.011
	Trichloroethylene	μg/m^2-min	22	14%	19	0.0012	0.0014	0.0014	0.0014	0.0014	0.0019	3	0.0025	0.0025	0.0031	0.0062	0.013	0.013
	Vinyl chloride	μg/m^2-min	22	5%	21	0.00059	0.00069	0.00069	0.00069	0.00069	0.00089	1	0.00069	--	0.00069	0.00069	--	0.00069

Notes:

Values for Q1, median, mean, and Q3 are rounded to 2 significant figures.

Max = Maximum

Min = Minimum

Q1 = 1st quartile (25th percentile)

Q3 = 3rd quartile (75th percentile)

(1) An SQL was not report by the laboratory. Therefore, values are based on the method detection limit (MDL).

(2) Range of detections include estimated values of detect results ("J" flagged values).

TABLE 7
BACKGROUND COMPARISON SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

	Mohawk Sub-Area																	
			Censored (Non-Detect) Data								Detected Data[1]							
Chemical	**Total Count**	**Detect Freq.**	**Count**	**Min**	**Q1**	**Median**	**Mean**	**Q3**	**Max**	**Std. Dev.**	**Count**	**Min**	**Q1**	**Median**	**Mean**	**Q3**	**Max**	**Std. Dev.**
Aluminum	114	100%	0	--	--	--	--	--	--	--	114	3970	7140	7940	8210	9220	12600	1690
Antimony	114	0.9%	113	0.126	0.126	1	0.743	1	2.8	0.669	1	1.1	--	1.1	1.1	--	1.1	--
Arsenic	114	100%	0	--	--	--	--	--	--	--	114	3.2	4.8	5.6	5.86	6.6	9.9	1.4
Barium	114	100%	0	--	--	--	--	--	--	--	114	178	426	484	501	567	1190	145
Beryllium	114	100%	0	--	--	--	--	--	--	--	114	0.22	0.38	0.43	0.512	0.52	2.1	0.306
Boron	114	2.6%	111	2.99	6.6	6.6	10.3	16.5	52.1	8.64	3	7.2	7.2	7.5	7.8	8.7	8.7	0.794
Cadmium	114	61.4%	44	0.04	0.1	0.1	0.116	0.11	0.26	0.0601	70	0.044	0.059	0.0835	0.0951	0.12	0.23	0.0426
Calcium	114	100%	0	--	--	--	--	--	--	--	114	2710	16800	21600	24600	27900	71600	12600
Chromium (Total)	114	100%	0	--	--	--	--	--	--	--	114	4.5	7.68	9.2	18.4	13	352	38.7
Chromium (VI)	111	35.1%	72	0.1	1	1.05	0.998	1.1	1.2	0.249	39	0.42	0.57	0.69	1.09	1.2	4.4	0.955
Cobalt	114	100%	0	--	--	--	--	--	--	--	114	2.4	3.88	4.4	5.43	5.4	22.3	3.46
Copper	114	100%	0	--	--	--	--	--	--	--	114	5.1	8.7	10.1	12.1	12.8	81.5	8.33
Iron	114	100%	0	--	--	--	--	--	--	--	114	4040	7000	8010	8450	9790	17000	2280
Lead	114	100%	0	--	--	--	--	--	--	--	114	5.8	9.5	11.7	14.7	16.3	70.2	9.77
Lithium	114	28.9%	81	13.14	13.1	13.1	24.7	25.6	114	27.4	33	6.8	14.5	17.7	19.7	23.1	46.4	8.17
Magnesium	114	100%	0	--	--	--	--	--	--	--	114	3540	5650	6510	6830	7720	21800	2070
Manganese	114	100%	0	--	--	--	--	--	--	--	114	144	254	367	507	559	2120	401
Mercury	110	15.5%	93	0.005	0.0115	0.0115	0.0123	0.0115	0.0347	0.00549	17	0.0121	0.0128	0.015	0.0167	0.0199	0.0283	0.00511
Molybdenum	114	55.3%	51	0.188	1	1.1	1.5	2.5	2.9	0.833	63	0.23	0.38	0.51	0.819	0.63	14.4	1.77
Nickel	114	100%	0	--	--	--	--	--	--	--	114	6.4	9.68	11.1	13.8	14.9	45.3	7.24
Niobium	82	3.7%	79	3	3	3	3.53	3	7.5	1.44	3	4.1	4.1	5.1	9.4	19	19	8.33
Palladium	95	100%	0	--	--	--	--	--	--	--	95	0.21	0.59	0.74	0.769	0.95	1.5	0.252
Phosphorus (as P)	95	100%	0	--	--	--	--	--	--	--	95	299	541	621	660	758	1320	192
Platinum	95	0%	95	0.024	0.048	0.048	0.0548	0.048	0.12	0.0214	0	--	--	--	--	--	--	--

TABLE 7
BACKGROUND COMPARISON SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

	Mohawk Sub-Area																	
			Censored (Non-Detect) Data								Detected Data[1]							
Chemical	Total Count	Detect Freq.	Count	Min	Q1	Median	Mean	Q3	Max	Std. Dev.	Count	Min	Q1	Median	Mean	Q3	Max	Std. Dev.
Potassium	114	100%	0	--	--	--	--	--	--	--	114	1050	2360	3120	3150	3820	7720	1150
Selenium	114	0%	114	0.16	0.32	0.32	0.519	0.32	2.6	0.583	0	--	--	--	--	--	--	--
Silicon	95	100%	0	--	--	--	--	--	--	--	95	88.3	139	199	229	277	679	126
Silver	114	81.6%	21	0.044	0.044	0.11	0.0849	0.11	0.11	0.0328	93	0.042	0.0565	0.07	0.0919	0.092	0.45	0.066
Sodium	114	100%	0	--	--	--	--	--	--	--	114	145	944	1590	1530	2060	3300	772
Strontium	114	100%	0	--	--	--	--	--	--	--	114	99.8	243	300	316	377	632	94.6
Thallium	114	6.1%	107	0.15	0.3	0.3	0.438	0.46	1.2	0.255	7	0.33	0.59	1.5	2.3	3.2	6.97	2.28
Tin	114	21.9%	89	0.3	0.3	0.3	0.433	0.75	0.75	0.205	25	0.31	0.325	0.41	0.737	0.705	4.4	0.86
Titanium	114	100%	0	--	--	--	--	--	--	--	114	172	304	346	367	392	853	113
Tungsten	114	15.8%	96	0.25	0.5	0.5	0.932	1.25	2.7	0.685	18	0.52	0.63	1.2	1.88	2.43	7.4	1.96
Uranium	114	100%	0	--	--	--	--	--	--	--	114	0.49	0.765	0.99	1.2	1.3	8.3	0.976
Vanadium	114	100%	0	--	--	--	--	--	--	--	114	13.3	19.7	23.9	42.6	37.5	458	56.8
Zinc	114	100%	0	--	--	--	--	--	--	--	114	17.6	23.7	26.9	38.1	33.9	236	37.3
Zirconium	95	100%	0	--	--	--	--	--	--	--	95	5	8.7	9.8	11.2	11.6	71.7	7.57
Radium-226	109	92.7%	8	0.83	1	1	0.979	1	1	0.0601	101	0.479	0.776	1.04	1.09	1.25	3.11	0.442
Radium-228	109	89.9%	11	0.141	0.315	0.682	0.543	0.743	0.813	0.254	98	0.799	1.26	1.55	1.67	2.04	3.12	0.523
Thorium-228	109	99.1%	1	1.07	--	1.07	1.07	--	1.07	--	108	0.809	1.44	1.7	1.72	2.02	2.67	0.409
Thorium-230	109	82.6%	19	0.37	1	1	0.967	1	1	0.145	90	0.524	0.998	1.21	1.29	1.45	2.94	0.489
Thorium-232	109	100%	0	--	--	--	--	--	--	--	109	0.675	1.18	1.4	1.38	1.56	2.26	0.294
Uranium-233/234	109	76.1%	26	0.4	1	1	0.939	1	1	0.175	83	0.504	0.941	1.16	1.34	1.6	4.45	0.611
Uranium-235/236	109	21.1%	86	-0.126	0.0107	0.067	0.0796	0.129	1	0.126	23	0.0902	0.145	0.177	0.179	0.213	0.281	0.0468
Uranium-238	109	96.3%	4	0.147	0.171	0.621	0.597	1	1	0.467	105	0.338	0.761	0.91	1.03	1.18	3.02	0.434

Note: Summary and background comparison statistics were performed using one-half the detection limit for metals and using GiSdT® (Neptune and Company 2009).
BOLD with Highlight indicates Site concentrations are greater than background.
WRS = Wilcoxon Rank Sum Test with the Gehan Modification

TABLE 7
BACKGROUND COMPARISON SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Background																	
			Censored (Non-Detect) Data								Detected Data[(1)]							
	Total Count	Detect Freq.	Count	Min	Q1	Median	Mean	Q3	Max	Std. Dev.	Count	Min	Q1	Median	Mean	Q3	Max	Std. Dev.
Aluminum	33	100%	0	--	--	--	--	--	--	--	33	5330	7170	9260	9740	12700	15500	2810
Antimony	33	39.4%	20	1	1	1	1.03	1	1.4	0.0923	13	0.19	0.255	0.3	0.318	0.37	0.61	0.111
Arsenic	33	100%	0	--	--	--	--	--	--	--	33	4.5	6.15	7.7	8.65	9.6	27.6	4.41
Barium	33	100%	0	--	--	--	--	--	--	--	33	211	307	428	466	633	755	173
Beryllium	33	100%	0	--	--	--	--	--	--	--	33	0.28	0.35	0.4	0.439	0.49	0.78	0.13
Boron	33	45.5%	18	6.6	6.6	6.6	6.6	6.6	6.6	--	15	7.1	7.4	9.7	13.2	11.8	57	12.5
Cadmium	33	63.6%	12	0.1	0.1	0.1	0.102	0.1	0.11	0.00389	21	0.053	0.0805	0.11	0.12	0.15	0.26	0.052
Calcium	33	100%	0	--	--	--	--	--	--	--	33	3430	20600	25400	27800	35500	71300	13900
Chromium (Total)	33	100%	0	--	--	--	--	--	--	--	33	3.2	7.25	9.9	10.8	13.6	23.6	4.59
Chromium (VI)	33	0%	33	0.41	0.41	0.42	0.441	0.47	0.56	0.0379	0	--	--	--	--	--	--	--
Cobalt	33	100%	0	--	--	--	--	--	--	--	33	3.7	4.2	4.7	5.04	5.25	8.9	1.17
Copper	33	100%	0	--	--	--	--	--	--	--	33	8	9.45	10.8	12.8	13.5	36.2	5.74
Iron	33	100%	0	--	--	--	--	--	--	--	33	6210	7770	9310	10300	11800	21700	3490
Lead	33	100%	0	--	--	--	--	--	--	--	33	7.6	10.2	12.1	15.2	16	53	9.57
Lithium	33	18.2%	27	14.628	14.6	25.8	36.6	51.3	138	31.1	6	26.3	30	33	33.2	35.9	41.8	5.05
Magnesium	33	100%	0	--	--	--	--	--	--	--	33	1550	6480	7580	8210	9640	15000	2710
Manganese	33	100%	0	--	--	--	--	--	--	--	33	178	238	295	410	383	2070	367
Mercury	33	0%	33	0.00668	0.00668	0.00668	0.0143	0.0343	0.035	0.0126	0	--	--	--	--	--	--	--
Molybdenum	33	100%	0	--	--	--	--	--	--	--	33	0.28	0.5	0.64	0.788	1.05	2.3	0.417
Nickel	33	100%	0	--	--	--	--	--	--	--	33	9.1	10.6	11.8	12.6	14	22	2.9
Niobium	33	3.0%	32	3	3	3	3	3	3	--	1	4.6	--	4.6	4.6	--	4.6	--
Palladium	33	100%	0	--	--	--	--	--	--	--	33	0.35	0.58	0.73	0.788	0.94	1.6	0.277
Phosphorus (as P)	33	100%	0	--	--	--	--	--	--	--	33	296	621	754	806	951	1710	277
Platinum	33	0%	33	0.048	0.048	0.048	0.048	0.048	0.048	--	0	--	--	--	--	--	--	--

TABLE 7
BACKGROUND COMPARISON SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

	Background																	
			Censored (Non-Detect) Data								Detected Data[1]							
Chemical	Total Count	Detect Freq.	Count	Min	Q1	Median	Mean	Q3	Max	Std. Dev.	Count	Min	Q1	Median	Mean	Q3	Max	Std. Dev.
Potassium	33	100%	0	--	--	--	--	--	--	--	33	1090	2110	2820	3530	4400	9000	2040
Selenium	33	0%	33	0.32	0.32	0.32	0.32	0.32	0.32	--	0	--	--	--	--	--	--	--
Silicon	33	100%	0	--	--	--	--	--	--	--	33	344	833	1190	1430	1530	7480	1250
Silver	33	42.4%	19	0.11	0.11	0.11	0.11	0.11	0.11	--	14	0.054	0.0693	0.076	0.095	0.123	0.17	0.0397
Sodium	33	100%	0	--	--	--	--	--	--	--	33	274	854	1370	1580	2030	4210	966
Strontium	33	100%	0	--	--	--	--	--	--	--	33	172	294	379	392	471	761	144
Thallium	33	18.2%	27	0.3	0.3	0.3	0.342	0.41	0.42	0.0562	6	0.43	0.438	0.46	0.717	0.883	2	0.629
Tin	33	48.5%	17	0.3	0.3	0.3	0.347	0.41	0.42	0.0581	16	0.32	0.345	0.43	0.483	0.593	1	0.176
Titanium	33	100%	0	--	--	--	--	--	--	--	33	215	319	380	408	523	611	114
Tungsten	33	6.1%	31	0.5	0.5	0.5	0.581	0.5	1	0.187	2	0.96	--	0.98	0.98	--	1	0.0283
Uranium	33	100%	0	--	--	--	--	--	--	--	33	0.56	0.73	0.92	1.17	1.25	4.3	0.737
Vanadium	33	100%	0	--	--	--	--	--	--	--	33	19	24.6	29.4	30.4	33.6	55.3	7.09
Zinc	33	100%	0	--	--	--	--	--	--	--	33	25	30.1	35.2	37	42.3	70.5	9.93
Zirconium	33	39.4%	20	20.5	20.6	20.7	21.1	20.9	27.5	1.52	13	9.1	10.4	11.5	11.7	12.5	16.8	2.03
Radium-226	33	93.9%	2	0.153	--	0.158	0.158	--	0.163	0.00707	31	0.574	0.837	1.03	1.16	1.38	2.75	0.458
Radium-228	33	84.8%	5	0.573	0.662	0.902	0.831	0.964	0.981	0.169	28	1.05	1.31	1.5	1.67	2.06	2.86	0.492
Thorium-228	33	100%	0	--	--	--	--	--	--	--	33	1.1	1.35	1.64	1.79	2.24	3.37	0.507
Thorium-230	33	81.8%	6	1	1	1	1	1	1	--	27	1.02	1.12	1.48	1.6	1.98	3.64	0.574
Thorium-232	33	100%	0	--	--	--	--	--	--	--	33	1.14	1.35	1.49	1.54	1.71	2.8	0.323
Uranium-233/234	33	100%	0	--	--	--	--	--	--	--	33	0.7	0.867	1.17	1.46	1.96	4.78	0.814
Uranium-235/236	33	33.3%	22	0.0224	0.0528	0.0663	0.0731	0.0927	0.189	0.0363	11	0.088	0.118	0.166	0.158	0.191	0.241	0.0482
Uranium-238	33	100%	0	--	--	--	--	--	--	--	33	0.545	0.788	0.938	1.2	1.43	4.01	0.672

Note: Summary and background comparison statistics were performed using one-half the detection limit for metals and using GiSdT® (Neptune and Company 2009).
BOLD with Highlight indicates Site concentrations are greater than background.
WRS = Wilcoxon Rank Sum Test with the Gehan Modification

TABLE 7
BACKGROUND COMPARISON SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	T Test *p*	Quantile Test *p*	Slippage Test *p*	WRS Test *p*	Greater than Background?	Units	Basis
Aluminum	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Antimony	9.4 E-1	1.0 E+0	8.1 E-1	8.4 E-1	YES	mg/kg	Low detection frequency; a single detection at the site, however many DLs were raised at Site due to blank contamination.
Arsenic	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Barium	1.5 E-1	8.4 E-1	1.6 E-1	1.0 E-1	NO	mg/kg	Multiple tests
Beryllium	2.4 E-2	5.4 E-1	1.6 E-1	9.8 E-2	YES	mg/kg	A single test failed, however, multiple site detections exceed the background max.
Boron	9.3 E-1	1.0 E+0	1.0 E+0	8.7 E-1	NO	mg/kg	Low detection frequency; Site Max, Mean < Background Max, Mean
Cadmium	9.2 E-1	9.5 E-1	1.0 E+0	9.5 E-1	NO	mg/kg	Multiple tests
Calcium	8.8 E-1	9.7 E-1	7.8 E-1	9.7 E-1	NO	mg/kg	Multiple tests
Chromium (Total)	2.1 E-2	7.1 E-1	5.4 E-2	4.7 E-1	YES	mg/kg	Statistically similar to background; however, three high Site results were reanalyzed and confirmed. Considered greater than background.
Chromium (VI)	5.3 E-13	3.5 E-5	NA	8.5 E-15	YES	mg/kg	ND in background
Cobalt	1.6 E-1	4.8 E-1	1.6 E-1	9.3 E-1	YES	mg/kg	Statistically similar to background; however, three high Site results were reanalyzed and confirmed. Considered greater than background.
Copper	7.0 E-1	8.4 E-1	6.0 E-1	9.5 E-1	NO	mg/kg	Multiple tests
Iron	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Lead	6.1 E-1	5.4 E-1	6.0 E-1	7.5 E-1	NO	mg/kg	Multiple tests
Lithium	9.9 E-1	3.0 E-1	8.0 E-1	1.0 E+0	NO	mg/kg	Low detection frequency; Site mean, median < background mean, median. Max at Site and background are similar.
Magnesium	1.0 E+0	1.0 E+0	7.8 E-1	1.0 E+0	NO	mg/kg	Multiple tests
Manganese	9.8 E-2	1.2 E-1	7.8 E-1	4.6 E-2	NO	mg/kg	Multiple tests
Mercury	2.9 E-1	8.7 E-1	NA	1.1 E-4	YES	mg/kg	ND in background
Molybdenum	5.0 E-1	1.0 E+0	7.5 E-1	3.4 E-1	YES	mg/kg	Statistically similar to background, however, max detect is >6 times the background max.
Nickel	8.5 E-2	3.6 E-1	1.3 E-2	8.8 E-1	YES	mg/kg	A single test failed, however, multiple site detections exceed the background max.
Niobium	3.5 E-2	6.5 E-2	4.7 E-1	2.0 E-2	YES	mg/kg	Multiple tests
Palladium	6.3 E-1	5.5 E-1	1.0 E+0	5.4 E-1	NO	mg/kg	Multiple tests
Phosphorus (as P)	NA	NA	NA	NA	NO	mg/kg	Multiple tests
Platinum	1.3 E-3	1.0 E+0	NA	3.8 E-2	NO	mg/kg	ND in both site and background datasets

TABLE 7
BACKGROUND COMPARISON SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	T Test *p*	Quantile Test *p*	Slippage Test *p*	WRS Test *p*	Greater than Background?	Units	Basis
Potassium	8.4 E-1	9.2 E-1	1.0 E+0	5.0 E-1	NO	mg/kg	Multiple tests
Selenium	2.0 E-4	1.0 E+0	NA	6.7 E-3	NO	mg/kg	ND in both site and background datasets
Silicon	1.0 E+0	1.0 E+0	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Silver	9.4 E-2	2.9 E-1	9.4 E-2	1.0 E+0	YES	mg/kg	Statistically similar to background, however, max detect is >2 times the background max with several Site detections exceeded the max background
Sodium	5.9 E-1	5.4 E-1	1.0 E+0	3.4 E-1	NO	mg/kg	Multiple tests
Strontium	1.0 E+0	9.9 E-1	1.0 E+0	1.0 E+0	NO	mg/kg	Multiple tests
Thallium	2.0 E-1	2.1 E-1	4.6 E-1	7.3 E-1	YES	mg/kg	Multiple tests
Tin	4.5 E-1	1.0 E+0	3.6 E-1	8.2 E-1	YES	mg/kg	Multiple tests
Titanium	9.6 E-1	1.0 E+0	2.1 E-1	9.7 E-1	NO	mg/kg	Multiple tests
Tungsten	1.6 E-4	8.1 E-3	3.3 E-2	4.5 E-4	YES	mg/kg	Multiple tests
Uranium	4.2 E-1	5.7 E-1	6.0 E-1	3.2 E-1	NO	mg/kg	Multiple tests
Vanadium	1.3 E-2	9.8 E-2	5.5 E-3	9.7 E-1	YES	mg/kg	Multiple tests
Zinc	3.9 E-1	1.0 E+0	9.4 E-2	1.0 E+0	YES	mg/kg	Statistically similar to background, however, max detect is >3 times the background max
Zirconium	3.9 E-1	4.2 E-1	5.9 E-1	1.0 E+0	NO	mg/kg	Multiple tests
Radium-226	6.9 E-1	9.2 E-1	5.9 E-1	5.9 E-1	NO	pCi/g	Multiple tests
Radium-228	3.6 E-1	5.3 E-1	5.9 E-1	3.9 E-1	NO	pCi/g	Multiple tests
Thorium-228	7.7 E-1	8.4 E-1	1.0 E+0	5.6 E-1	NO	pCi/g	Multiple tests
Thorium-230	9.7 E-1	1.0 E+0	1.0 E+0	1.0 E+0	NO	pCi/g	Multiple tests
Thorium-232	9.9 E-1	1.0 E+0	1.0 E+0	9.9 E-1	NO	pCi/g	Multiple tests
Uranium-233/234	9.8 E-1	9.9 E-1	1.0 E+0	8.6 E-1	NO	pCi/g	Multiple tests
Uranium-235/236	7.2 E-1	9.2 E-1	7.6 E-1	5.7 E-1	NO	pCi/g	Low detection frequency; results are comparable to background and other radionuclides are in equilibrium.
Uranium-238	9.4 E-1	9.2 E-1	1.0 E+0	8.9 E-1	NO	pCi/g	Multiple tests

Note: Summary and background comparison statistics were performed using one-half the detection limit for metals and using GiSdT® (Neptune and Company 2009).
BOLD with Highlight indicates Site concentrations are greater than background.
WRS = Wilcoxon Rank Sum Test with the Gehan Modification

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Aldehydes														
Acetaldehyde	mg/kg	39	104	38%	0.15	0.544	0.152	1.51	0.29	0.31	N/A	No	Yes	(5)
Chloral	mg/kg	0	101	0%	0.067	0.17	ND	ND	0.038	0.011	N/A	No	No	(2)
Chloroacetaldehyde	mg/kg	0	102	0%	0.25	0.5	ND	ND	0.2	0.062	N/A	No	No	(2)
Dichloroacetaldehyde	mg/kg	0	101	0%	0.17	0.42	ND	ND	0.097	0.027	N/A	No	No	(2)
Formaldehyde	mg/kg	68	104	65%	0.2	2.53	0.138	6.74	0.89	1.3	N/A	No	Yes	(5)
Dioxins / Furans														
TCDD TEQ	ppt	71	71	100%	N/A	N/A	0.19	40.7	4.5	8.5	N/A	Yes	No	(1)(3)
Inorganics														
Aluminum	mg/kg	114	114	100%	N/A	N/A	7935	12600	8200	1700	NO	No	No	(6)
Ammonia	mg/kg	11	104	11%	0.78	5	0.83	15.3	0.75	1.6	N/A	No	Yes	(5)
Antimony	mg/kg	1	114	1%	0.126	2.8	0.5	1.1	0.38	0.34	YES	No	Yes	(8)
Arsenic	mg/kg	114	114	100%	N/A	N/A	5.6	9.9	5.9	1.4	NO	Yes	No	(1)(6)
Asbestos	Structures	16	52	31%	N/A	N/A	1	10	N/A	N/A	N/A	Yes	Yes	(1)(5)
Barium	mg/kg	114	114	100%	N/A	N/A	483.5	1190	500	140	NO	No	No	(6)
Beryllium	mg/kg	114	114	100%	N/A	N/A	0.43	2.1	0.51	0.31	YES	No	Yes	(8)
Boron	mg/kg	3	114	3%	2.99	52.1	3.3	8.7	5.2	4.3	NO	No	No	(6)
Cadmium	mg/kg	70	114	61%	0.04	0.26	0.062	0.23	0.081	0.042	NO	No	No	(6)
Calcium	mg/kg	114	114	100%	N/A	N/A	21600	71600	25000	13000	NO	No	No	(6)
Chromium (Total)	mg/kg	114	114	100%	N/A	N/A	9.2	352	18	39	YES	No	Yes	(8)
Chromium (VI)	mg/kg	39	111	35%	0.1	1.2	0.55	4.4	0.71	0.64	YES	Yes	Yes	(1)(8)
Cobalt	mg/kg	13	13	100%	N/A	N/A	3	22.3	11	7.5	YES	No	Yes	(8)
Copper	mg/kg	114	114	100%	N/A	N/A	10.1	81.5	12	8.3	NO	No	No	(6)
Cyanide	mg/kg	5	102	5%	0.079	0.55	0.088	0.11	0.055	0.049	N/A	No	No	(4)(12)
Fluoride	mg/kg	82	102	80%	0.1	0.11	0.45	6.2	1.3	1.1	N/A	No	Yes	(5)
Iron	mg/kg	114	114	100%	N/A	N/A	8005	17000	8500	2300	NO	No	No	(6)
Lead	mg/kg	114	114	100%	N/A	N/A	11.65	70.2	15	9.8	NO	Yes	No	(11)
Lithium	mg/kg	33	114	29%	13.14	114	6.57	46.4	14	13	NO	No	No	(6)
Magnesium	mg/kg	114	114	100%	N/A	N/A	6510	21800	6800	2100	NO	No	No	(6)
Manganese	mg/kg	114	114	100%	N/A	N/A	366.5	2120	510	400	NO	No	No	(6)
Mercury	mg/kg	17	110	15%	0.005	0.0347	0.00575	0.0283	0.0078	0.005	YES	No	Yes	(8)
Molybdenum	mg/kg	63	114	55%	0.188	2.9	0.545	14.4	0.79	1.3	YES	No	Yes	(8)
Nickel	mg/kg	114	114	100%	N/A	N/A	11.1	45.3	14	7.2	YES	No	Yes	(8)
Niobium	mg/kg	3	82	4%	3	7.5	1.5	19	2	2.1	YES	No	No	(9)
Nitrate (as N)	mg/kg	102	102	100%	N/A	N/A	0.22	185	12	29	N/A	No	Yes	(5)
Palladium	mg/kg	95	95	100%	N/A	N/A	0.74	1.5	0.77	0.25	NO	No	No	(6)

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Perchlorate	mg/kg	85	97	88%	0.041	0.0429	0.0152	5.58	0.44	0.89	N/A	No	Yes	(5)
Phosphorus (as P)	mg/kg	95	95	100%	N/A	N/A	621	1320	660	190	NO	No	No	(6)
Platinum	mg/kg	0	95	0%	0.024	0.12	0.024	N/A	0.027	0.011	NO	No	No	(2)
Potassium	mg/kg	114	114	100%	N/A	N/A	3120	7720	3100	1200	NO	No	No	(6)
Selenium	mg/kg	0	114	0%	0.16	2.6	0.16	N/A	0.26	0.29	NO	No	No	(6)
Silicon	mg/kg	95	95	100%	N/A	N/A	199	679	230	130	NO	No	No	(6)
Silver	mg/kg	93	114	82%	0.044	0.11	0.0635	0.45	0.083	0.063	YES	No	Yes	(8)
Sodium	mg/kg	114	114	100%	N/A	N/A	1585	3300	1500	770	NO	No	No	(6)
Strontium	mg/kg	114	114	100%	N/A	N/A	299.5	632	320	95	NO	No	No	(6)
Sulfur	mg/kg	26	95	27%	43.4	108.5	54.25	6720	300	780	N/A	No	No	(9)
Thallium	mg/kg	7	114	6%	0.15	1.2	0.15	6.97	0.35	0.74	YES	No	Yes	(8)
Tin	mg/kg	25	114	22%	0.3	0.75	0.15	4.4	0.33	0.46	YES	No	Yes	(8)
Titanium	mg/kg	114	114	100%	N/A	N/A	346	853	370	110	NO	No	No	(6)
Tungsten	mg/kg	18	114	16%	0.25	2.7	0.3125	7.4	0.69	0.97	YES	No	Yes	(8)
Uranium	mg/kg	114	114	100%	N/A	N/A	0.99	8.3	1.2	0.98	NO	No	No	(6)
Vanadium	mg/kg	106	106	100%	N/A	N/A	13.3	277	35	35	YES	No	Yes	(8)
Zinc	mg/kg	114	114	100%	N/A	N/A	26.9	236	38	37	YES	No	Yes	(8)
Zirconium	mg/kg	95	95	100%	N/A	N/A	9.8	71.7	11	7.6	NO	No	No	(6)
Organochlorine Pesticides														
2,4-DDD	mg/kg	0	107	0%	0.00031	0.00035	ND	ND	0.00016	0.0000051	N/A	Yes	No	(2)
2,4-DDE	mg/kg	22	107	21%	0.0002	0.00023	0.0019	0.042	0.0017	0.0052	N/A	Yes	Yes	(1)(5)
4,4-DDD	mg/kg	0	107	0%	0.000089	0.0001	ND	ND	0.000047	0.0000014	N/A	Yes	No	(2)
4,4-DDE	mg/kg	23	107	21%	0.00019	0.00022	0.0019	0.069	0.0023	0.0081	N/A	Yes	Yes	(1)(5)
4,4-DDT	mg/kg	5	107	4.7%	0.0002	0.00023	0.0027	0.077	0.0012	0.0079	N/A	Yes	Yes	(7)
Aldrin	mg/kg	0	107	0%	0.000095	0.00011	ND	ND	0.00005	0.0000017	N/A	Yes	No	(2)
alpha-BHC	mg/kg	0	107	0%	0.00028	0.00033	ND	ND	0.00015	0.0000052	N/A	No	No	(2)
alpha-Chlordane	mg/kg	0	107	0%	0.00021	0.00024	ND	ND	0.00011	0.0000037	N/A	Yes	No	(2)
beta-BHC	mg/kg	7	107	7%	0.00019	0.00022	0.0018	0.0063	0.00028	0.00081	N/A	No	Yes	(5)
Chlordane	mg/kg	0	107	0%	0.0023	0.0027	ND	ND	0.0012	0.000042	N/A	Yes	No	(2)
delta-BHC	mg/kg	0	107	0%	0.00017	0.00019	ND	ND	0.000087	0.0000031	N/A	No	No	(2)
Dieldrin	mg/kg	0	107	0%	0.000091	0.00011	ND	ND	0.000048	0.0000015	N/A	Yes	No	(2)
Endosulfan I	mg/kg	0	107	0%	0.00011	0.00012	ND	ND	0.000056	0.0000016	N/A	No	No	(2)
Endosulfan II	mg/kg	0	107	0%	0.000093	0.00011	ND	ND	0.000049	0.0000016	N/A	No	No	(2)
Endosulfan sulfate	mg/kg	0	107	0%	0.00026	0.0003	ND	ND	0.00014	0.0000045	N/A	No	No	(2)
Endrin	mg/kg	0	107	0%	0.000083	0.000096	ND	ND	0.000043	0.0000014	N/A	No	No	(2)
Endrin aldehyde	mg/kg	1	107	1%	0.00018	0.00021	0.0028	0.0028	0.00012	0.00026	N/A	No	No	(4)(12)

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Endrin ketone	mg/kg	0	107	0%	0.00016	0.00019	ND	ND	0.000086	0.0000029	N/A	No	No	(2)
gamma-Chlordane	mg/kg	0	107	0%	0.000083	0.000096	ND	ND	0.000043	0.0000014	N/A	Yes	No	(2)
Heptachlor	mg/kg	0	107	0%	0.00017	0.0002	ND	ND	0.00009	0.0000031	N/A	No	No	(2)
Heptachlor epoxide	mg/kg	0	107	0%	0.00013	0.00015	ND	ND	0.000069	0.0000029	N/A	No	No	(2)
Lindane	mg/kg	0	107	0%	0.00012	0.00014	ND	ND	0.000065	0.0000024	N/A	No	No	(2)
Methoxychlor	mg/kg	0	107	0%	0.00032	0.00036	ND	ND	0.00017	0.0000052	N/A	No	No	(2)
Toxaphene	mg/kg	0	107	0%	0.0058	0.0067	ND	ND	0.003	0.000099	N/A	Yes	No	(2)
Radionuclides														
Radium-226	pCi/g	101	109	93%	0.83	1	1.02	3.11	1	0.45	NO	Yes	No	(1)(6)
Radium-228	pCi/g	98	109	90%	0.141	0.813	1.47	3.12	1.5	0.65	NO	Yes	No	(1)(6)
Thorium-228	pCi/g	108	109	99%	1.07	1.07	1.7	2.67	1.7	0.42	NO	Yes	No	(1)(6)
Thorium-230	pCi/g	90	109	83%	0.37	1	1.12	2.94	1.1	0.54	NO	Yes	No	(1)(6)
Thorium-232	pCi/g	109	109	100%	N/A	N/A	1.4	2.26	1.4	0.29	NO	Yes	No	(1)(6)
Uranium-233/234	pCi/g	83	109	76%	0.4	1	1.04	4.45	1.1	0.65	NO	Yes	No	(1)(6)
Uranium-235/236	pCi/g	23	109	21%	-0.126	1	0.093	0.281	0.069	0.083	NO	Yes	No	(1)(6)
Uranium-238	pCi/g	105	109	96%	0.147	1	0.91	3.02	1	0.45	NO	Yes	No	(1)(6)
Semi-Volatile Organic Compounds														
1,2,4,5-Tetrachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
1,2-Diphenylhydrazine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
1,4-Dioxane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,2'-/4,4'-Dichlorobenzil	mg/kg	0	107	0%	0.114	0.41	ND	ND	0.17	0.026	N/A	No	No	(2)
2,4,5-Trichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4,6-Trichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dimethylphenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dinitrophenol	mg/kg	0	107	0%	0.131	0.38	ND	ND	0.17	0.023	N/A	No	No	(2)
2,4-Dinitrotoluene	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
2,6-Dinitrotoluene	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
2-Chloronaphthalene	mg/kg	0	107	0%	0.0121	0.039	ND	ND	0.017	0.0025	N/A	No	No	(2)
2-Chlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2-Methylnaphthalene	mg/kg	0	107	0%	0.00691	0.039	ND	ND	0.017	0.003	N/A	No	No	(2)
2-Nitroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2-Nitrophenol	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
3,3'-Dichlorobenzidine	mg/kg	0	107	0%	0.033	0.106	ND	ND	0.019	0.0075	N/A	No	No	(2)
3-Methylphenol & 4-Methylphenol	mg/kg	0	107	0%	0.067	0.142	ND	ND	0.037	0.0075	N/A	No	No	(2)
3-Nitroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
4-Bromophenyl phenyl ether	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chloro-3-Methylphenol	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chlorophenyl phenyl ether	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chlorothioanisole	mg/kg	0	107	0%	0.0076	0.117	ND	ND	0.0065	0.011	N/A	No	No	(2)
4-Nitrophenol	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Acetophenone	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
Aniline	mg/kg	0	107	0%	0.033	0.124	ND	ND	0.02	0.0093	N/A	No	No	(2)
Azobenzene	mg/kg	0	102	0%	0.033	0.039	ND	ND	0.017	0.00058	N/A	No	No	(2)
Benzenethiol	mg/kg	0	107	0%	0.114	0.14	ND	ND	0.065	0.0029	N/A	No	No	(2)
Benzoic acid	mg/kg	0	107	0%	0.033	0.177	ND	ND	0.021	0.015	N/A	No	No	(2)
Benzyl alcohol	mg/kg	0	107	0%	0.033	0.106	ND	ND	0.019	0.0075	N/A	No	No	(2)
Benzyl butyl phthalate	mg/kg	1	107	1%	0.033	0.0708	0.039	0.039	0.018	0.0043	N/A	No	No	(4)(12)
bis(2-Chloroethoxy) methane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
bis(2-Chloroethyl) ether	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
bis(2-Chloroisopropyl) ether	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
bis(2-Ethylhexyl) phthalate	mg/kg	3	107	3%	0.033	0.0708	0.039	0.058	0.019	0.0063	N/A	No	No	(4)(12)
bis(p-Chlorophenyl) disulfide	mg/kg	0	107	0%	0.114	0.23	ND	ND	0.1	0.011	N/A	No	No	(2)
bis(p-Chlorophenyl) sulfone	mg/kg	0	107	0%	0.114	0.38	ND	ND	0.17	0.025	N/A	No	No	(2)
Carbazole	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Dibenzofuran	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Dibutyl phthalate	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
Dichloromethyl ether	mg/kg	0	5	0%	0.114	0.117	ND	ND	0.058	0.00057	N/A	No	No	(2)
Diethyl phthalate	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Dimethyl phthalate	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Di-n-octyl phthalate	mg/kg	0	107	0%	0.015	0.0708	ND	ND	0.009	0.0058	N/A	No	No	(2)
Diphenyl sulfone	mg/kg	0	107	0%	0.0067	0.117	ND	ND	0.006	0.012	N/A	No	No	(2)
Diphenylamine	mg/kg	0	5	0%	0.0691	0.0708	ND	ND	0.035	0.00033	N/A	No	No	(2)
Fluoranthene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Fluorene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Hexachloro-1,3-butadiene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Hexachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
Hexachlorocyclopentadiene	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Hexachloroethane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Hydroxymethyl phthalimide	mg/kg	0	107	0%	0.043	0.117	ND	ND	0.024	0.0075	N/A	No	No	(2)
Isophorone	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Naphthalene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Nitrobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
N-nitrosodi-n-propylamine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
N-nitrosodiphenylamine	mg/kg	0	102	0%	0.033	0.039	ND	ND	0.017	0.00058	N/A	No	No	(2)
o-Cresol	mg/kg	0	107	0%	0.0691	0.14	ND	ND	0.06	0.0062	N/A	No	No	(2)
Octachlorostyrene	mg/kg	0	107	0%	0.033	0.117	ND	ND	0.019	0.0086	N/A	No	No	(2)
p-Chloroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
p-Chlorothiophenol	mg/kg	0	107	0%	0.114	0.21	ND	ND	0.095	0.0088	N/A	No	No	(2)
Pentachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Pentachlorophenol	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Phenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Phenyl Disulfide	mg/kg	0	107	0%	0.029	0.117	ND	ND	0.017	0.0091	N/A	No	No	(2)
Phenyl Sulfide	mg/kg	0	107	0%	0.0035	0.117	ND	ND	0.0045	0.012	N/A	No	No	(2)
Phthalic acid	mg/kg	0	107	0%	0.114	0.29	ND	ND	0.13	0.016	N/A	No	No	(2)
p-Nitroaniline	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Pyridine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Polynuclear Aromatic Hydrocarbons														
Acenaphthene	mg/kg	0	107	0%	0.00173	0.02	ND	ND	0.0089	0.0018	N/A	No	No	(2)
Acenaphthylene	mg/kg	0	107	0%	0.00173	0.018	ND	ND	0.0078	0.0016	N/A	No	No	(2)
Anthracene	mg/kg	0	107	0%	0.00067	0.00177	ND	ND	0.00038	0.00011	N/A	No	No	(2)
Benzo(a)anthracene	mg/kg	0	107	0%	0.0011	0.00177	ND	ND	0.00062	0.000061	N/A	No	No	(2)
Benzo(a)pyrene	mg/kg	0	107	0%	0.00173	0.0023	ND	ND	0.001	0.00005	N/A	Yes	No	(2)
Benzo(b)fluoranthene	mg/kg	0	107	0%	0.00173	0.0023	ND	ND	0.001	0.00005	N/A	No	No	(2)
Benzo(g,h,i)perylene	mg/kg	0	107	0%	0.00173	0.0071	ND	ND	0.0031	0.00051	N/A	No	No	(2)
Benzo(k)fluoranthene	mg/kg	0	107	0%	0.00173	0.0026	ND	ND	0.0012	0.000079	N/A	No	No	(2)
Chrysene	mg/kg	0	107	0%	0.0011	0.00177	ND	ND	0.00057	0.000069	N/A	No	No	(2)
Dibenzo(a,h)anthracene	mg/kg	0	107	0%	0.00173	0.0043	ND	ND	0.0019	0.00024	N/A	No	No	(2)
Indeno(1,2,3-cd)pyrene	mg/kg	0	107	0%	0.00173	0.0022	ND	ND	0.00099	0.000044	N/A	No	No	(2)
Phenanthrene	mg/kg	0	107	0%	0.0017	0.002	ND	ND	0.0009	0.000034	N/A	No	No	(2)
Pyrene	mg/kg	0	107	0%	0.00173	0.0034	ND	ND	0.0015	0.00015	N/A	No	No	(2)
Polychlorinated Biphenyls														
Aroclor 1016	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1221	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1232	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1242	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1248	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1254	mg/kg	0	67	0%	0.0027	0.0031	ND	ND	0.0014	0.000047	N/A	Yes	No	(2)

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Aroclor 1260	mg/kg	0	67	0%	0.0027	0.0031	ND	ND	0.0014	0.000047	N/A	Yes	No	(2)
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	mg/kg	1	102	1%	0.00018	0.00021	0.036	0.036	0.00045	0.0036	N/A	No	No	(4)(12)
1,1,1-Trichloroethane	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.0000016	N/A	No	No	(2)
1,1,2,2-Tetrachloroethane	mg/kg	0	102	0%	0.000078	0.00009	ND	ND	0.000041	0.0000013	N/A	No	No	(2)
1,1,2-Trichloroethane	mg/kg	0	102	0%	0.000067	0.000077	ND	ND	0.000035	0.0000011	N/A	No	No	(2)
1,1-Dichloroethane	mg/kg	0	102	0%	0.00007	0.000081	ND	ND	0.000037	0.0000012	N/A	No	No	(2)
1,1-Dichloroethylene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000062	0.0000029	N/A	No	No	(2)
1,1-Dichloropropene	mg/kg	0	102	0%	0.000087	0.0001	ND	ND	0.000046	0.0000014	N/A	No	No	(2)
1,2,3-Trichlorobenzene	mg/kg	0	102	0%	0.00039	0.00045	ND	ND	0.0002	0.000007	N/A	No	No	(2)
1,2,3-Trichloropropane	mg/kg	0	102	0%	0.00025	0.00029	ND	ND	0.00013	0.0000046	N/A	No	No	(2)
1,2,4-Trichlorobenzene	mg/kg	0	102	0%	0.00033	0.00038	ND	ND	0.00017	0.0000059	N/A	No	No	(2)
1,2,4-Trimethylbenzene	mg/kg	18	102	18%	0.00013	0.0058	0.00038	0.0015	0.00049	0.00086	N/A	No	Yes	(5)
1,2-Dibromo-3-chloropropane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000037	N/A	No	No	(2)
1,2-Dichlorobenzene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000063	0.0000029	N/A	No	No	(2)
1,2-Dichloroethane	mg/kg	0	102	0%	0.000066	0.000076	ND	ND	0.000035	0.0000011	N/A	No	No	(2)
1,2-Dichloroethylene	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.000002	N/A	No	No	(2)
1,2-Dichloropropane	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000057	0.0000029	N/A	No	No	(2)
1,3,5-Trichlorobenzene	mg/kg	0	102	0%	0.00037	0.00043	ND	ND	0.00019	0.0000067	N/A	No	No	(2)
1,3,5-Trimethylbenzene	mg/kg	1	102	1%	0.000097	0.00011	0.00053	0.00053	0.000055	0.000048	N/A	No	No	(4)(12)
1,3-Dichlorobenzene	mg/kg	0	102	0%	0.00013	0.00015	ND	ND	0.000069	0.000003	N/A	No	No	(2)
1,3-Dichloropropane	mg/kg	0	102	0%	0.000051	0.000059	ND	ND	0.000027	8.7E-07	N/A	No	No	(2)
1,4-Dichlorobenzene	mg/kg	0	102	0%	0.00014	0.00016	ND	ND	0.000071	0.0000025	N/A	No	No	(2)
1-Nonanal	mg/kg	2	102	2%	0.00047	0.00054	0.00067	0.0047	0.00029	0.00044	N/A	No	No	(4)
2,2,3-Trimethylbutane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
2,2-Dichloropropane	mg/kg	0	102	0%	0.00023	0.00027	ND	ND	0.00012	0.0000043	N/A	No	No	(2)
2,2-Dimethylpentane	mg/kg	0	102	0%	0.00028	0.00032	ND	ND	0.00014	0.0000048	N/A	No	No	(2)
2,3-Dimethylpentane	mg/kg	0	102	0%	0.00022	0.00026	ND	ND	0.00012	0.000004	N/A	No	No	(2)
2,4-Dimethylpentane	mg/kg	0	102	0%	0.00019	0.00022	ND	ND	0.0001	0.0000033	N/A	No	No	(2)
2-Chlorotoluene	mg/kg	0	102	0%	0.00025	0.00029	ND	ND	0.00013	0.0000045	N/A	No	No	(2)
2-Nitropropane	mg/kg	0	102	0%	0.0006	0.0007	ND	ND	0.00032	0.00001	N/A	No	No	(2)
2-Phenylbutane	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.0000018	N/A	No	No	(2)
3,3-dimethylpentane	mg/kg	0	102	0%	0.0002	0.00023	ND	ND	0.00011	0.0000034	N/A	No	No	(2)
3-ethylpentane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
3-Methylhexane	mg/kg	0	102	0%	0.00014	0.00016	ND	ND	0.000073	0.0000031	N/A	No	No	(2)
4-Chlorotoluene	mg/kg	0	102	0%	0.00017	0.0002	ND	ND	0.00009	0.0000034	N/A	No	No	(2)

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Acetone	mg/kg	15	102	15%	0.0017	0.09	0.012	0.16	0.0089	0.019	N/A	No	Yes	(5)
Acetonitrile	mg/kg	1	102	1%	0.0054	0.0063	0.033	0.033	0.0031	0.003	N/A	No	No	(4)(12)
Benzene	mg/kg	1	102	1%	0.000087	0.0001	0.00055	0.00055	0.000051	0.00005	N/A	Yes	Yes	(7)
Bromobenzene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000063	0.0000029	N/A	No	No	(2)
Bromodichloromethane	mg/kg	0	102	0%	0.00021	0.00025	ND	ND	0.00011	0.000004	N/A	No	No	(2)
Bromomethane	mg/kg	0	102	0%	0.00013	0.00015	ND	ND	0.000068	0.000003	N/A	No	No	(2)
Carbon disulfide	mg/kg	0	102	0%	0.00012	0.0055	ND	ND	0.00016	0.0005	N/A	No	No	(2)
Carbon tetrachloride	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
CFC-11	mg/kg	0	102	0%	0.00022	0.00025	ND	ND	0.00011	0.000004	N/A	No	No	(2)
CFC-12	mg/kg	0	102	0%	0.00029	0.00033	ND	ND	0.00015	0.000005	N/A	No	No	(2)
Chlorinated fluorocarbon (Freon 113)	mg/kg	0	102	0%	0.00015	0.00017	ND	ND	0.000076	0.0000024	N/A	No	No	(2)
Chlorobenzene	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.000002	N/A	No	No	(2)
Chlorobromomethane	mg/kg	0	102	0%	0.00023	0.00026	ND	ND	0.00012	0.000004	N/A	No	No	(2)
Chlorodibromomethane	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000061	0.0000025	N/A	No	No	(2)
Chloroethane	mg/kg	0	102	0%	0.00046	0.00053	ND	ND	0.00024	0.000008	N/A	No	No	(2)
Chloroform	mg/kg	0	102	0%	0.0001	0.0053	ND	ND	0.000077	0.00026	N/A	No	No	(2)
Chloromethane	mg/kg	0	102	0%	0.00027	0.00031	ND	ND	0.00014	0.0000048	N/A	No	No	(2)
cis-1,2-Dichloroethylene	mg/kg	0	102	0%	0.000054	0.000062	ND	ND	0.000028	9.2E-07	N/A	No	No	(2)
cis-1,3-Dichloropropylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Cymene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000065	0.0000021	N/A	No	No	(2)
Dibromomethane	mg/kg	0	102	0%	0.00017	0.00019	ND	ND	0.000087	0.000003	N/A	No	No	(2)
Dichloromethane	mg/kg	15	102	15%	0.00069	0.022	0.0046	0.019	0.0026	0.0039	N/A	No	Yes	(5)
Ethanol	mg/kg	3	102	3%	0.047	0.055	0.19	0.47	0.033	0.053	N/A	No	No	(4)
Ethylbenzene	mg/kg	1	102	1%	0.000058	0.000067	0.00037	0.00037	0.000034	0.000034	N/A	No	No	(4)(12)
Hexane, 2-methyl-	mg/kg	0	102	0%	0.0002	0.00023	ND	ND	0.00011	0.0000034	N/A	No	No	(2)
Isopropylbenzene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000054	0.0000024	N/A	No	No	(2)
m,p-Xylene	mg/kg	1	102	1%	0.00017	0.00019	0.00088	0.00088	0.000095	0.000079	N/A	No	No	(4)(12)
Methyl disulfide	mg/kg	0	102	0%	0.00018	0.0002	ND	ND	0.000092	0.0000031	N/A	No	No	(2)
Methyl ethyl ketone	mg/kg	4	102	4%	0.00087	0.001	0.0013	0.018	0.00075	0.0019	N/A	No	No	(4)(12)
Methyl iodide	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000065	0.0000021	N/A	No	No	(2)
Methyl isobutyl ketone	mg/kg	0	102	0%	0.00029	0.00033	ND	ND	0.00015	0.0000051	N/A	No	No	(2)
Methyl n-butyl ketone	mg/kg	0	102	0%	0.00024	0.00027	ND	ND	0.00012	0.0000042	N/A	No	No	(2)
MTBE (Methyl tert-butyl ether)	mg/kg	0	102	0%	0.000089	0.0001	ND	ND	0.000047	0.0000014	N/A	No	No	(2)
n-Butyl benzene	mg/kg	0	102	0%	0.00018	0.00021	ND	ND	0.000094	0.0000036	N/A	No	No	(2)
n-Heptane	mg/kg	0	102	0%	0.00016	0.00019	ND	ND	0.000086	0.000003	N/A	No	No	(2)
n-Propyl benzene	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000057	0.0000027	N/A	No	No	(2)

TABLE 8A
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
o-Xylene	mg/kg	0	102	0%	0.000076	0.000088	ND	ND	0.00004	0.0000013	N/A	No	No	(2)
Styrene (monomer)	mg/kg	0	102	0%	0.00017	0.0002	ND	ND	0.000091	0.0000031	N/A	No	No	(2)
tert-Butyl benzene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Tetrachloroethylene	mg/kg	0	102	0%	0.000087	0.0001	ND	ND	0.000046	0.0000014	N/A	No	No	(2)
Toluene	mg/kg	3	102	3%	0.00032	0.0055	0.0005	0.0015	0.00038	0.00067	N/A	No	No	(4)(12)
trans-1,2-Dichloroethylene	mg/kg	0	102	0%	0.00009	0.0001	ND	ND	0.000047	0.0000013	N/A	No	No	(2)
trans-1,3-Dichloropropylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Tribromomethane	mg/kg	0	102	0%	0.000059	0.000068	ND	ND	0.000031	0.000001	N/A	No	No	(2)
Trichloroethylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000055	0.0000019	N/A	No	No	(2)
Vinyl acetate	mg/kg	0	101	0%	0.00024	0.00028	ND	ND	0.00013	0.0000045	N/A	No	No	(2)
Vinyl chloride	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000059	0.0000027	N/A	No	No	(2)
Xylenes (total)	mg/kg	0	102	0%	0.00023	0.00027	ND	ND	0.00012	0.0000042	N/A	No	No	(2)

pCi/g - picoCuries per gram
mg/kg - milligrams per kilogram
N/A - Not available or not applicable.
ND - Not detected.
Highlight indicates selected as COPC.
(1) Persistent, Bioaccumulative, and Toxic (PBT) Program.
(2) Not detected.
(3) Dioxin and PCB congeners are not evaluated separately. Dioxin and PCB congeners are evaluated as TCDD TEQs. The maximum TCDD TEQ was less than the 50 ppt residential BCL.
(4) Chemical detected in less than 5 percent of the samples and is not a PBT or Class A carcinogen.
(5) Chemical detected in greater than 5 percent of samples.
(6) Chemical concentrations are equivalent to background.
(7) Chemical detected in less than 5 percent of the samples, but is a PBT or Class A carcinogen.
(8) Based on statistical tests, Site concentrations are elevated compared to background.
(9) No toxicity criteria or applicable surrogate criteria are available.
(10) One carcinogenic polynuclear aromatic hydrocarbon (PAH) is a COPC, therefore all carcinogenic PAHs are COPCs.
(11) Lead was not selected as a COPC because the maximum concentration is below 400 ppb.
(12) Chemical detected in less than 5 percent of samples and below the residential BCL.

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Aldehydes														
Acetaldehyde	mg/kg	39	104	38%	0.15	0.544	0.152	1.51	0.29	0.31	N/A	No	Yes	(5)
Chloral	mg/kg	0	101	0%	0.067	0.17	ND	ND	0.038	0.011	N/A	No	No	(2)
Chloroacetaldehyde	mg/kg	0	102	0%	0.25	0.5	ND	ND	0.2	0.062	N/A	No	No	(2)
Dichloroacetaldehyde	mg/kg	0	101	0%	0.17	0.42	ND	ND	0.097	0.027	N/A	No	No	(2)
Formaldehyde	mg/kg	68	104	65%	0.2	2.53	0.138	6.74	0.89	1.3	N/A	No	Yes	(5)
Dioxins / Furans														
TCDD TEQ	ppt	71	71	100%	N/A	N/A	0.19	40.7	4.5	8.5	N/A	Yes	No	(1)(3)
Inorganics														
Aluminum	mg/kg	114	114	100%	N/A	N/A	7935	12600	8200	1700	NO	No	No	(6)
Ammonia	mg/kg	11	104	11%	0.78	5	0.83	15.3	0.75	1.6	N/A	No	Yes	(5)
Antimony	mg/kg	1	114	1%	0.126	2.8	0.5	1.1	0.38	0.34	YES	No	Yes	(8)
Arsenic	mg/kg	114	114	100%	N/A	N/A	5.6	9.9	5.9	1.4	NO	Yes	No	(1)(6)
Asbestos	Structures	16	52	31%	N/A	N/A	1	10	N/A	N/A	N/A	Yes	Yes	(1)(5)
Barium	mg/kg	114	114	100%	N/A	N/A	483.5	1190	500	140	NO	No	No	(6)
Beryllium	mg/kg	114	114	100%	N/A	N/A	0.43	2.1	0.51	0.31	YES	No	Yes	(8)
Boron	mg/kg	3	114	3%	2.99	52.1	3.3	8.7	5.2	4.3	NO	No	No	(6)
Cadmium	mg/kg	70	114	61%	0.04	0.26	0.062	0.23	0.081	0.042	NO	No	No	(6)
Calcium	mg/kg	114	114	100%	N/A	N/A	21600	71600	25000	13000	NO	No	No	(6)
Chromium (Total)	mg/kg	114	114	100%	N/A	N/A	9.2	352	18	39	YES	No	Yes	(8)
Chromium (VI)	mg/kg	39	111	35%	0.1	1.2	0.55	4.4	0.71	0.64	YES	Yes	Yes	(1)(8)
Cobalt	mg/kg	101	101	100%	N/A	N/A	2.4	11	4.7	1.4	NO	No	No	(6)
Copper	mg/kg	114	114	100%	N/A	N/A	10.1	81.5	12	8.3	NO	No	No	(6)
Cyanide	mg/kg	5	102	5%	0.079	0.55	0.088	0.11	0.055	0.049	N/A	No	No	(4)(12)
Fluoride	mg/kg	82	102	80%	0.1	0.11	0.45	6.2	1.3	1.1	N/A	No	Yes	(5)
Iron	mg/kg	114	114	100%	N/A	N/A	8005	17000	8500	2300	NO	No	No	(6)
Lead	mg/kg	114	114	100%	N/A	N/A	11.65	70.2	15	9.8	NO	Yes	No	(11)
Lithium	mg/kg	33	114	29%	13.14	114	6.57	46.4	14	13	NO	No	No	(6)
Magnesium	mg/kg	114	114	100%	N/A	N/A	6510	21800	6800	2100	NO	No	No	(6)
Manganese	mg/kg	114	114	100%	N/A	N/A	366.5	2120	510	400	NO	No	No	(6)
Mercury	mg/kg	17	110	15%	0.005	0.0347	0.00575	0.0283	0.0078	0.005	YES	No	Yes	(8)
Molybdenum	mg/kg	63	114	55%	0.188	2.9	0.545	14.4	0.79	1.3	YES	No	Yes	(8)
Nickel	mg/kg	114	114	100%	N/A	N/A	11.1	45.3	14	7.2	YES	No	Yes	(8)
Niobium	mg/kg	3	82	4%	3	7.5	1.5	19	2	2.1	YES	No	No	(9)
Nitrate (as N)	mg/kg	102	102	100%	N/A	N/A	0.22	185	12	29	N/A	No	Yes	(5)
Palladium	mg/kg	95	95	100%	N/A	N/A	0.74	1.5	0.77	0.25	NO	No	No	(6)

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Perchlorate	mg/kg	85	97	88%	0.041	0.0429	0.0152	5.58	0.44	0.89	N/A	No	Yes	(5)
Phosphorus (as P)	mg/kg	95	95	100%	N/A	N/A	621	1320	660	190	NO	No	No	(6)
Platinum	mg/kg	0	95	0%	0.024	0.12	0.024	N/A	0.027	0.011	NO	No	No	(2)
Potassium	mg/kg	114	114	100%	N/A	N/A	3120	7720	3100	1200	NO	No	No	(6)
Selenium	mg/kg	0	114	0%	0.16	2.6	0.16	N/A	0.26	0.29	NO	No	No	(6)
Silicon	mg/kg	95	95	100%	N/A	N/A	199	679	230	130	NO	No	No	(6)
Silver	mg/kg	93	114	82%	0.044	0.11	0.0635	0.45	0.083	0.063	YES	No	Yes	(8)
Sodium	mg/kg	114	114	100%	N/A	N/A	1585	3300	1500	770	NO	No	No	(6)
Strontium	mg/kg	114	114	100%	N/A	N/A	299.5	632	320	95	NO	No	No	(6)
Sulfur	mg/kg	26	95	27%	43.4	108.5	54.25	6720	300	780	N/A	No	No	(9)
Thallium	mg/kg	7	114	6%	0.15	1.2	0.15	6.97	0.35	0.74	YES	No	Yes	(8)
Tin	mg/kg	25	114	22%	0.3	0.75	0.15	4.4	0.33	0.46	YES	No	Yes	(8)
Titanium	mg/kg	114	114	100%	N/A	N/A	346	853	370	110	NO	No	No	(6)
Tungsten	mg/kg	18	114	16%	0.25	2.7	0.3125	7.4	0.69	0.97	YES	No	Yes	(8)
Uranium	mg/kg	114	114	100%	N/A	N/A	0.99	8.3	1.2	0.98	NO	No	No	(6)
Vanadium	mg/kg	8	8	100%	N/A	N/A	33.4	458	140	149	YES	No	Yes	(8)
Zinc	mg/kg	114	114	100%	N/A	N/A	26.9	236	38	37	YES	No	Yes	(8)
Zirconium	mg/kg	95	95	100%	N/A	N/A	9.8	71.7	11	7.6	NO	No	No	(6)
Organochlorine Pesticides														
2,4-DDD	mg/kg	0	107	0%	0.00031	0.00035	ND	ND	0.00016	0.0000051	N/A	Yes	No	(2)
2,4-DDE	mg/kg	22	107	21%	0.0002	0.00023	0.0019	0.042	0.0017	0.0052	N/A	Yes	Yes	(1)(5)
4,4-DDD	mg/kg	0	107	0%	0.000089	0.0001	ND	ND	0.000047	0.0000014	N/A	Yes	No	(2)
4,4-DDE	mg/kg	23	107	21%	0.00019	0.00022	0.0019	0.069	0.0023	0.0081	N/A	Yes	Yes	(1)(5)
4,4-DDT	mg/kg	5	107	4.7%	0.0002	0.00023	0.0027	0.077	0.0012	0.0079	N/A	Yes	Yes	(7)
Aldrin	mg/kg	0	107	0%	0.000095	0.00011	ND	ND	0.00005	0.0000017	N/A	Yes	No	(2)
alpha-BHC	mg/kg	0	107	0%	0.00028	0.00033	ND	ND	0.00015	0.0000052	N/A	No	No	(2)
alpha-Chlordane	mg/kg	0	107	0%	0.00021	0.00024	ND	ND	0.00011	0.0000037	N/A	Yes	No	(2)
beta-BHC	mg/kg	7	107	7%	0.00019	0.00022	0.0018	0.0063	0.00028	0.00081	N/A	No	Yes	(5)
Chlordane	mg/kg	0	107	0%	0.0023	0.0027	ND	ND	0.0012	0.000042	N/A	Yes	No	(2)
delta-BHC	mg/kg	0	107	0%	0.00017	0.00019	ND	ND	0.000087	0.0000031	N/A	No	No	(2)
Dieldrin	mg/kg	0	107	0%	0.000091	0.00011	ND	ND	0.000048	0.0000015	N/A	Yes	No	(2)
Endosulfan I	mg/kg	0	107	0%	0.00011	0.00012	ND	ND	0.000056	0.0000016	N/A	No	No	(2)
Endosulfan II	mg/kg	0	107	0%	0.000093	0.00011	ND	ND	0.000049	0.0000016	N/A	No	No	(2)
Endosulfan sulfate	mg/kg	0	107	0%	0.00026	0.0003	ND	ND	0.00014	0.0000045	N/A	No	No	(2)
Endrin	mg/kg	0	107	0%	0.000083	0.000096	ND	ND	0.000043	0.0000014	N/A	No	No	(2)
Endrin aldehyde	mg/kg	1	107	1%	0.00018	0.00021	0.0028	0.0028	0.00012	0.00026	N/A	No	No	(4)(12)

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Endrin ketone	mg/kg	0	107	0%	0.00016	0.00019	ND	ND	0.000086	0.0000029	N/A	No	No	(2)
gamma-Chlordane	mg/kg	0	107	0%	0.000083	0.000096	ND	ND	0.000043	0.0000014	N/A	Yes	No	(2)
Heptachlor	mg/kg	0	107	0%	0.00017	0.0002	ND	ND	0.00009	0.0000031	N/A	No	No	(2)
Heptachlor epoxide	mg/kg	0	107	0%	0.00013	0.00015	ND	ND	0.000069	0.0000029	N/A	No	No	(2)
Lindane	mg/kg	0	107	0%	0.00012	0.00014	ND	ND	0.000065	0.0000024	N/A	No	No	(2)
Methoxychlor	mg/kg	0	107	0%	0.00032	0.00036	ND	ND	0.00017	0.0000052	N/A	No	No	(2)
Toxaphene	mg/kg	0	107	0%	0.0058	0.0067	ND	ND	0.003	0.000099	N/A	Yes	No	(2)
Radionuclides														
Radium-226	pCi/g	101	109	93%	0.83	1	1.02	3.11	1	0.45	NO	Yes	No	(1)(6)
Radium-228	pCi/g	98	109	90%	0.141	0.813	1.47	3.12	1.5	0.65	NO	Yes	No	(1)(6)
Thorium-228	pCi/g	108	109	99%	1.07	1.07	1.7	2.67	1.7	0.42	NO	Yes	No	(1)(6)
Thorium-230	pCi/g	90	109	83%	0.37	1	1.12	2.94	1.1	0.54	NO	Yes	No	(1)(6)
Thorium-232	pCi/g	109	109	100%	N/A	N/A	1.4	2.26	1.4	0.29	NO	Yes	No	(1)(6)
Uranium-233/234	pCi/g	83	109	76%	0.4	1	1.04	4.45	1.1	0.65	NO	Yes	No	(1)(6)
Uranium-235/236	pCi/g	23	109	21%	-0.126	1	0.093	0.281	0.069	0.083	NO	Yes	No	(1)(6)
Uranium-238	pCi/g	105	109	96%	0.147	1	0.91	3.02	1	0.45	NO	Yes	No	(1)(6)
Semi-Volatile Organic Compounds														
1,2,4,5-Tetrachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
1,2-Diphenylhydrazine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
1,4-Dioxane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,2'-/4,4'-Dichlorobenzil	mg/kg	0	107	0%	0.114	0.41	ND	ND	0.17	0.026	N/A	No	No	(2)
2,4,5-Trichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4,6-Trichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dimethylphenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dinitrophenol	mg/kg	0	107	0%	0.131	0.38	ND	ND	0.17	0.023	N/A	No	No	(2)
2,4-Dinitrotoluene	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
2,6-Dinitrotoluene	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
2-Chloronaphthalene	mg/kg	0	107	0%	0.0121	0.039	ND	ND	0.017	0.0025	N/A	No	No	(2)
2-Chlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2-Methylnaphthalene	mg/kg	0	107	0%	0.00691	0.039	ND	ND	0.017	0.003	N/A	No	No	(2)
2-Nitroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2-Nitrophenol	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
3,3'-Dichlorobenzidine	mg/kg	0	107	0%	0.033	0.106	ND	ND	0.019	0.0075	N/A	No	No	(2)
3-Methylphenol & 4-Methylphenol	mg/kg	0	107	0%	0.067	0.142	ND	ND	0.037	0.0075	N/A	No	No	(2)
3-Nitroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
4-Bromophenyl phenyl ether	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chloro-3-Methylphenol	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chlorophenyl phenyl ether	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chlorothioanisole	mg/kg	0	107	0%	0.0076	0.117	ND	ND	0.0065	0.011	N/A	No	No	(2)
4-Nitrophenol	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Acetophenone	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
Aniline	mg/kg	0	107	0%	0.033	0.124	ND	ND	0.02	0.0093	N/A	No	No	(2)
Azobenzene	mg/kg	0	102	0%	0.033	0.039	ND	ND	0.017	0.00058	N/A	No	No	(2)
Benzenethiol	mg/kg	0	107	0%	0.114	0.14	ND	ND	0.065	0.0029	N/A	No	No	(2)
Benzoic acid	mg/kg	0	107	0%	0.033	0.177	ND	ND	0.021	0.015	N/A	No	No	(2)
Benzyl alcohol	mg/kg	0	107	0%	0.033	0.106	ND	ND	0.019	0.0075	N/A	No	No	(2)
Benzyl butyl phthalate	mg/kg	1	107	1%	0.033	0.0708	0.039	0.039	0.018	0.0043	N/A	No	No	(4)(12)
bis(2-Chloroethoxy) methane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
bis(2-Chloroethyl) ether	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
bis(2-Chloroisopropyl) ether	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
bis(2-Ethylhexyl) phthalate	mg/kg	3	107	3%	0.033	0.0708	0.039	0.058	0.019	0.0063	N/A	No	No	(4)(12)
bis(p-Chlorophenyl) disulfide	mg/kg	0	107	0%	0.114	0.23	ND	ND	0.1	0.011	N/A	No	No	(2)
bis(p-Chlorophenyl) sulfone	mg/kg	0	107	0%	0.114	0.38	ND	ND	0.17	0.025	N/A	No	No	(2)
Carbazole	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Dibenzofuran	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Dibutyl phthalate	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
Dichloromethyl ether	mg/kg	0	5	0%	0.114	0.117	ND	ND	0.058	0.00057	N/A	No	No	(2)
Diethyl phthalate	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Dimethyl phthalate	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Di-n-octyl phthalate	mg/kg	0	107	0%	0.015	0.0708	ND	ND	0.009	0.0058	N/A	No	No	(2)
Diphenyl sulfone	mg/kg	0	107	0%	0.0067	0.117	ND	ND	0.006	0.012	N/A	No	No	(2)
Diphenylamine	mg/kg	0	5	0%	0.0691	0.0708	ND	ND	0.035	0.00033	N/A	No	No	(2)
Fluoranthene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Fluorene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Hexachloro-1,3-butadiene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Hexachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
Hexachlorocyclopentadiene	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Hexachloroethane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Hydroxymethyl phthalimide	mg/kg	0	107	0%	0.043	0.117	ND	ND	0.024	0.0075	N/A	No	No	(2)
Isophorone	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Naphthalene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Nitrobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
N-nitrosodi-n-propylamine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
N-nitrosodiphenylamine	mg/kg	0	102	0%	0.033	0.039	ND	ND	0.017	0.00058	N/A	No	No	(2)
o-Cresol	mg/kg	0	107	0%	0.0691	0.14	ND	ND	0.06	0.0062	N/A	No	No	(2)
Octachlorostyrene	mg/kg	0	107	0%	0.033	0.117	ND	ND	0.019	0.0086	N/A	No	No	(2)
p-Chloroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
p-Chlorothiophenol	mg/kg	0	107	0%	0.114	0.21	ND	ND	0.095	0.0088	N/A	No	No	(2)
Pentachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Pentachlorophenol	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Phenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Phenyl Disulfide	mg/kg	0	107	0%	0.029	0.117	ND	ND	0.017	0.0091	N/A	No	No	(2)
Phenyl Sulfide	mg/kg	0	107	0%	0.0035	0.117	ND	ND	0.0045	0.012	N/A	No	No	(2)
Phthalic acid	mg/kg	0	107	0%	0.114	0.29	ND	ND	0.13	0.016	N/A	No	No	(2)
p-Nitroaniline	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Pyridine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Polynuclear Aromatic Hydrocarbons														
Acenaphthene	mg/kg	0	107	0%	0.00173	0.02	ND	ND	0.0089	0.0018	N/A	No	No	(2)
Acenaphthylene	mg/kg	0	107	0%	0.00173	0.018	ND	ND	0.0078	0.0016	N/A	No	No	(2)
Anthracene	mg/kg	0	107	0%	0.00067	0.00177	ND	ND	0.00038	0.00011	N/A	No	No	(2)
Benzo(a)anthracene	mg/kg	0	107	0%	0.0011	0.00177	ND	ND	0.00062	0.000061	N/A	No	No	(2)
Benzo(a)pyrene	mg/kg	0	107	0%	0.00173	0.0023	ND	ND	0.001	0.00005	N/A	Yes	No	(2)
Benzo(b)fluoranthene	mg/kg	0	107	0%	0.00173	0.0023	ND	ND	0.001	0.00005	N/A	No	No	(2)
Benzo(g,h,i)perylene	mg/kg	0	107	0%	0.00173	0.0071	ND	ND	0.0031	0.00051	N/A	No	No	(2)
Benzo(k)fluoranthene	mg/kg	0	107	0%	0.00173	0.0026	ND	ND	0.0012	0.000079	N/A	No	No	(2)
Chrysene	mg/kg	0	107	0%	0.0011	0.00177	ND	ND	0.00057	0.000069	N/A	No	No	(2)
Dibenzo(a,h)anthracene	mg/kg	0	107	0%	0.00173	0.0043	ND	ND	0.0019	0.00024	N/A	No	No	(2)
Indeno(1,2,3-cd)pyrene	mg/kg	0	107	0%	0.00173	0.0022	ND	ND	0.00099	0.000044	N/A	No	No	(2)
Phenanthrene	mg/kg	0	107	0%	0.0017	0.002	ND	ND	0.0009	0.000034	N/A	No	No	(2)
Pyrene	mg/kg	0	107	0%	0.00173	0.0034	ND	ND	0.0015	0.00015	N/A	No	No	(2)
Polychlorinated Biphenyls														
Aroclor 1016	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1221	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1232	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1242	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1248	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1254	mg/kg	0	67	0%	0.0027	0.0031	ND	ND	0.0014	0.000047	N/A	Yes	No	(2)

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Aroclor 1260	mg/kg	0	67	0%	0.0027	0.0031	ND	ND	0.0014	0.000047	N/A	Yes	No	(2)
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	mg/kg	1	102	1%	0.00018	0.00021	0.036	0.036	0.00045	0.0036	N/A	No	No	(4)(12)
1,1,1-Trichloroethane	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.0000016	N/A	No	No	(2)
1,1,2,2-Tetrachloroethane	mg/kg	0	102	0%	0.000078	0.00009	ND	ND	0.000041	0.0000013	N/A	No	No	(2)
1,1,2-Trichloroethane	mg/kg	0	102	0%	0.000067	0.000077	ND	ND	0.000035	0.0000011	N/A	No	No	(2)
1,1-Dichloroethane	mg/kg	0	102	0%	0.00007	0.000081	ND	ND	0.000037	0.0000012	N/A	No	No	(2)
1,1-Dichloroethylene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000062	0.0000029	N/A	No	No	(2)
1,1-Dichloropropene	mg/kg	0	102	0%	0.000087	0.0001	ND	ND	0.000046	0.0000014	N/A	No	No	(2)
1,2,3-Trichlorobenzene	mg/kg	0	102	0%	0.00039	0.00045	ND	ND	0.0002	0.000007	N/A	No	No	(2)
1,2,3-Trichloropropane	mg/kg	0	102	0%	0.00025	0.00029	ND	ND	0.00013	0.0000046	N/A	No	No	(2)
1,2,4-Trichlorobenzene	mg/kg	0	102	0%	0.00033	0.00038	ND	ND	0.00017	0.0000059	N/A	No	No	(2)
1,2,4-Trimethylbenzene	mg/kg	18	102	18%	0.00013	0.0058	0.00038	0.0015	0.00049	0.00086	N/A	No	Yes	(5)
1,2-Dibromo-3-chloropropane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000037	N/A	No	No	(2)
1,2-Dichlorobenzene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000063	0.0000029	N/A	No	No	(2)
1,2-Dichloroethane	mg/kg	0	102	0%	0.000066	0.000076	ND	ND	0.000035	0.0000011	N/A	No	No	(2)
1,2-Dichloroethylene	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.000002	N/A	No	No	(2)
1,2-Dichloropropane	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000057	0.0000029	N/A	No	No	(2)
1,3,5-Trichlorobenzene	mg/kg	0	102	0%	0.00037	0.00043	ND	ND	0.00019	0.0000067	N/A	No	No	(2)
1,3,5-Trimethylbenzene	mg/kg	1	102	1%	0.000097	0.00011	0.00053	0.00053	0.000055	0.000048	N/A	No	No	(4)(12)
1,3-Dichlorobenzene	mg/kg	0	102	0%	0.00013	0.00015	ND	ND	0.000069	0.000003	N/A	No	No	(2)
1,3-Dichloropropane	mg/kg	0	102	0%	0.000051	0.000059	ND	ND	0.000027	8.7E-07	N/A	No	No	(2)
1,4-Dichlorobenzene	mg/kg	0	102	0%	0.00014	0.00016	ND	ND	0.000071	0.0000025	N/A	No	No	(2)
1-Nonanal	mg/kg	2	102	2%	0.00047	0.00054	0.00067	0.0047	0.00029	0.00044	N/A	No	No	(4)
2,2,3-Trimethylbutane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
2,2-Dichloropropane	mg/kg	0	102	0%	0.00023	0.00027	ND	ND	0.00012	0.0000043	N/A	No	No	(2)
2,2-Dimethylpentane	mg/kg	0	102	0%	0.00028	0.00032	ND	ND	0.00014	0.0000048	N/A	No	No	(2)
2,3-Dimethylpentane	mg/kg	0	102	0%	0.00022	0.00026	ND	ND	0.00012	0.000004	N/A	No	No	(2)
2,4-Dimethylpentane	mg/kg	0	102	0%	0.00019	0.00022	ND	ND	0.0001	0.0000033	N/A	No	No	(2)
2-Chlorotoluene	mg/kg	0	102	0%	0.00025	0.00029	ND	ND	0.00013	0.0000045	N/A	No	No	(2)
2-Nitropropane	mg/kg	0	102	0%	0.0006	0.0007	ND	ND	0.00032	0.00001	N/A	No	No	(2)
2-Phenylbutane	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.0000018	N/A	No	No	(2)
3,3-dimethylpentane	mg/kg	0	102	0%	0.0002	0.00023	ND	ND	0.00011	0.0000034	N/A	No	No	(2)
3-ethylpentane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
3-Methylhexane	mg/kg	0	102	0%	0.00014	0.00016	ND	ND	0.000073	0.0000031	N/A	No	No	(2)
4-Chlorotoluene	mg/kg	0	102	0%	0.00017	0.0002	ND	ND	0.00009	0.0000034	N/A	No	No	(2)

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Acetone	mg/kg	15	102	15%	0.0017	0.09	0.012	0.16	0.0089	0.019	N/A	No	Yes	(5)
Acetonitrile	mg/kg	1	102	1%	0.0054	0.0063	0.033	0.033	0.0031	0.003	N/A	No	No	(4)(12)
Benzene	mg/kg	1	102	1%	0.000087	0.0001	0.00055	0.00055	0.000051	0.00005	N/A	Yes	Yes	(7)
Bromobenzene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000063	0.0000029	N/A	No	No	(2)
Bromodichloromethane	mg/kg	0	102	0%	0.00021	0.00025	ND	ND	0.00011	0.000004	N/A	No	No	(2)
Bromomethane	mg/kg	0	102	0%	0.00013	0.00015	ND	ND	0.000068	0.000003	N/A	No	No	(2)
Carbon disulfide	mg/kg	0	102	0%	0.00012	0.0055	ND	ND	0.00016	0.0005	N/A	No	No	(2)
Carbon tetrachloride	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
CFC-11	mg/kg	0	102	0%	0.00022	0.00025	ND	ND	0.00011	0.000004	N/A	No	No	(2)
CFC-12	mg/kg	0	102	0%	0.00029	0.00033	ND	ND	0.00015	0.000005	N/A	No	No	(2)
Chlorinated fluorocarbon (Freon 113)	mg/kg	0	102	0%	0.00015	0.00017	ND	ND	0.000076	0.0000024	N/A	No	No	(2)
Chlorobenzene	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.000002	N/A	No	No	(2)
Chlorobromomethane	mg/kg	0	102	0%	0.00023	0.00026	ND	ND	0.00012	0.000004	N/A	No	No	(2)
Chlorodibromomethane	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000061	0.0000025	N/A	No	No	(2)
Chloroethane	mg/kg	0	102	0%	0.00046	0.00053	ND	ND	0.00024	0.000008	N/A	No	No	(2)
Chloroform	mg/kg	0	102	0%	0.0001	0.0053	ND	ND	0.000077	0.00026	N/A	No	No	(2)
Chloromethane	mg/kg	0	102	0%	0.00027	0.00031	ND	ND	0.00014	0.0000048	N/A	No	No	(2)
cis-1,2-Dichloroethylene	mg/kg	0	102	0%	0.000054	0.000062	ND	ND	0.000028	9.2E-07	N/A	No	No	(2)
cis-1,3-Dichloropropylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Cymene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000065	0.0000021	N/A	No	No	(2)
Dibromomethane	mg/kg	0	102	0%	0.00017	0.00019	ND	ND	0.000087	0.000003	N/A	No	No	(2)
Dichloromethane	mg/kg	15	102	15%	0.00069	0.022	0.0046	0.019	0.0026	0.0039	N/A	No	Yes	(5)
Ethanol	mg/kg	3	102	3%	0.047	0.055	0.19	0.47	0.033	0.053	N/A	No	No	(4)
Ethylbenzene	mg/kg	1	102	1%	0.000058	0.000067	0.00037	0.00037	0.000034	0.000034	N/A	No	No	(4)(12)
Hexane, 2-methyl-	mg/kg	0	102	0%	0.0002	0.00023	ND	ND	0.00011	0.0000034	N/A	No	No	(2)
Isopropylbenzene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000054	0.0000024	N/A	No	No	(2)
m,p-Xylene	mg/kg	1	102	1%	0.00017	0.00019	0.00088	0.00088	0.000095	0.000079	N/A	No	No	(4)(12)
Methyl disulfide	mg/kg	0	102	0%	0.00018	0.0002	ND	ND	0.000092	0.0000031	N/A	No	No	(2)
Methyl ethyl ketone	mg/kg	4	102	4%	0.00087	0.001	0.0013	0.018	0.00075	0.0019	N/A	No	No	(4)(12)
Methyl iodide	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000065	0.0000021	N/A	No	No	(2)
Methyl isobutyl ketone	mg/kg	0	102	0%	0.00029	0.00033	ND	ND	0.00015	0.0000051	N/A	No	No	(2)
Methyl n-butyl ketone	mg/kg	0	102	0%	0.00024	0.00027	ND	ND	0.00012	0.0000042	N/A	No	No	(2)
MTBE (Methyl tert-butyl ether)	mg/kg	0	102	0%	0.000089	0.0001	ND	ND	0.000047	0.0000014	N/A	No	No	(2)
n-Butyl benzene	mg/kg	0	102	0%	0.00018	0.00021	ND	ND	0.000094	0.0000036	N/A	No	No	(2)
n-Heptane	mg/kg	0	102	0%	0.00016	0.00019	ND	ND	0.000086	0.000003	N/A	No	No	(2)
n-Propyl benzene	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000057	0.0000027	N/A	No	No	(2)

TABLE 8B
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
o-Xylene	mg/kg	0	102	0%	0.000076	0.000088	ND	ND	0.00004	0.0000013	N/A	No	No	(2)
Styrene (monomer)	mg/kg	0	102	0%	0.00017	0.0002	ND	ND	0.000091	0.0000031	N/A	No	No	(2)
tert-Butyl benzene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Tetrachloroethylene	mg/kg	0	102	0%	0.000087	0.0001	ND	ND	0.000046	0.0000014	N/A	No	No	(2)
Toluene	mg/kg	3	102	3%	0.00032	0.0055	0.0005	0.0015	0.00038	0.00067	N/A	No	No	(4)(12)
trans-1,2-Dichloroethylene	mg/kg	0	102	0%	0.00009	0.0001	ND	ND	0.000047	0.0000013	N/A	No	No	(2)
trans-1,3-Dichloropropylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Tribromomethane	mg/kg	0	102	0%	0.000059	0.000068	ND	ND	0.000031	0.000001	N/A	No	No	(2)
Trichloroethylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000055	0.0000019	N/A	No	No	(2)
Vinyl acetate	mg/kg	0	101	0%	0.00024	0.00028	ND	ND	0.00013	0.0000045	N/A	No	No	(2)
Vinyl chloride	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000059	0.0000027	N/A	No	No	(2)
Xylenes (total)	mg/kg	0	102	0%	0.00023	0.00027	ND	ND	0.00012	0.0000042	N/A	No	No	(2)

pCi/g - picoCuries per gram
mg/kg - milligrams per kilogram
N/A - Not available or not applicable.
ND - Not detected.
Highlight indicates selected as COPC.
(1) Persistent, Bioaccumulative, and Toxic (PBT) Program.
(2) Not detected.
(3) Dioxin and PCB congeners are not evaluated separately. Dioxin and PCB congeners are evaluated as TCDD TEQs. The maximum TCDD TEQ was less than the 50 ppt residential BCL.
(4) Chemical detected in less than 5 percent of the samples and is not a PBT or Class A carcinogen.
(5) Chemical detected in greater than 5 percent of samples.
(6) Chemical concentrations are equivalent to background.
(7) Chemical detected in less than 5 percent of the samples, but is a PBT or Class A carcinogen.
(8) Based on statistical tests, Site concentrations are elevated compared to background.
(9) No toxicity criteria or applicable surrogate criteria are available.
(10) One carcinogenic polynuclear aromatic hydrocarbon (PAH) is a COPC, therefore all carcinogenic PAHs are COPCs.
(11) Lead was not selected as a COPC because the maximum concentration is below 400 ppb.
(12) Chemical detected in less than 5 percent of samples and below the residential BCL.

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Aldehydes														
Acetaldehyde	mg/kg	39	104	38%	0.15	0.544	0.152	1.51	0.29	0.31	N/A	No	Yes	(5)
Chloral	mg/kg	0	101	0%	0.067	0.17	ND	ND	0.038	0.011	N/A	No	No	(2)
Chloroacetaldehyde	mg/kg	0	102	0%	0.25	0.5	ND	ND	0.2	0.062	N/A	No	No	(2)
Dichloroacetaldehyde	mg/kg	0	101	0%	0.17	0.42	ND	ND	0.097	0.027	N/A	No	No	(2)
Formaldehyde	mg/kg	68	104	65%	0.2	2.53	0.138	6.74	0.89	1.3	N/A	No	Yes	(5)
Dioxins / Furans														
TCDD TEQ	ppt	71	71	100%	N/A	N/A	0.19	40.7	4.5	8.5	N/A	Yes	No	(1)(3)
Inorganics														
Aluminum	mg/kg	114	114	100%	N/A	N/A	7935	12600	8200	1700	NO	No	No	(6)
Ammonia	mg/kg	11	104	11%	0.78	5	0.83	15.3	0.75	1.6	N/A	No	Yes	(5)
Antimony	mg/kg	1	114	1%	0.126	2.8	0.5	1.1	0.38	0.34	YES	No	Yes	(8)
Arsenic	mg/kg	114	114	100%	N/A	N/A	5.6	9.9	5.9	1.4	NO	Yes	No	(1)(6)
Asbestos	Structures	16	52	31%	N/A	N/A	1	10	N/A	N/A	N/A	Yes	Yes	(1)(5)
Barium	mg/kg	114	114	100%	N/A	N/A	483.5	1190	500	140	NO	No	No	(6)
Beryllium	mg/kg	114	114	100%	N/A	N/A	0.43	2.1	0.51	0.31	YES	No	Yes	(8)
Boron	mg/kg	3	114	3%	2.99	52.1	3.3	8.7	5.2	4.3	NO	No	No	(6)
Cadmium	mg/kg	70	114	61%	0.04	0.26	0.062	0.23	0.081	0.042	NO	No	No	(6)
Calcium	mg/kg	114	114	100%	N/A	N/A	21600	71600	25000	13000	NO	No	No	(6)
Chromium (Total)	mg/kg	114	114	100%	N/A	N/A	9.2	352	18	39	YES	No	Yes	(8)
Chromium (VI)	mg/kg	39	111	35%	0.1	1.2	0.55	4.4	0.71	0.64	YES	Yes	Yes	(1)(8)
Cobalt	mg/kg	101	101	100%	N/A	N/A	2.4	11	4.7	1.4	NO	No	No	(6)
Copper	mg/kg	114	114	100%	N/A	N/A	10.1	81.5	12	8.3	NO	No	No	(6)
Cyanide	mg/kg	5	102	5%	0.079	0.55	0.088	0.11	0.055	0.049	N/A	No	No	(4)(12)
Fluoride	mg/kg	82	102	80%	0.1	0.11	0.45	6.2	1.3	1.1	N/A	No	Yes	(5)
Iron	mg/kg	114	114	100%	N/A	N/A	8005	17000	8500	2300	NO	No	No	(6)
Lead	mg/kg	114	114	100%	N/A	N/A	11.65	70.2	15	9.8	NO	Yes	No	(11)
Lithium	mg/kg	33	114	29%	13.14	114	6.57	46.4	14	13	NO	No	No	(6)
Magnesium	mg/kg	114	114	100%	N/A	N/A	6510	21800	6800	2100	NO	No	No	(6)
Manganese	mg/kg	114	114	100%	N/A	N/A	366.5	2120	510	400	NO	No	No	(6)
Mercury	mg/kg	17	110	15%	0.005	0.0347	0.00575	0.0283	0.0078	0.005	YES	No	Yes	(8)
Molybdenum	mg/kg	63	114	55%	0.188	2.9	0.545	14.4	0.79	1.3	YES	No	Yes	(8)
Nickel	mg/kg	114	114	100%	N/A	N/A	11.1	45.3	14	7.2	YES	No	Yes	(8)
Niobium	mg/kg	3	82	4%	3	7.5	1.5	19	2	2.1	YES	No	No	(9)
Nitrate (as N)	mg/kg	102	102	100%	N/A	N/A	0.22	185	12	29	N/A	No	Yes	(5)
Palladium	mg/kg	95	95	100%	N/A	N/A	0.74	1.5	0.77	0.25	NO	No	No	(6)

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Perchlorate	mg/kg	85	97	88%	0.041	0.0429	0.0152	5.58	0.44	0.89	N/A	No	Yes	(5)
Phosphorus (as P)	mg/kg	95	95	100%	N/A	N/A	621	1320	660	190	NO	No	No	(6)
Platinum	mg/kg	0	95	0%	0.024	0.12	0.024	N/A	0.027	0.011	NO	No	No	(2)
Potassium	mg/kg	114	114	100%	N/A	N/A	3120	7720	3100	1200	NO	No	No	(6)
Selenium	mg/kg	0	114	0%	0.16	2.6	0.16	N/A	0.26	0.29	NO	No	No	(6)
Silicon	mg/kg	95	95	100%	N/A	N/A	199	679	230	130	NO	No	No	(6)
Silver	mg/kg	93	114	82%	0.044	0.11	0.0635	0.45	0.083	0.063	YES	No	Yes	(8)
Sodium	mg/kg	114	114	100%	N/A	N/A	1585	3300	1500	770	NO	No	No	(6)
Strontium	mg/kg	114	114	100%	N/A	N/A	299.5	632	320	95	NO	No	No	(6)
Sulfur	mg/kg	26	95	27%	43.4	108.5	54.25	6720	300	780	N/A	No	No	(9)
Thallium	mg/kg	7	114	6%	0.15	1.2	0.15	6.97	0.35	0.74	YES	No	Yes	(8)
Tin	mg/kg	25	114	22%	0.3	0.75	0.15	4.4	0.33	0.46	YES	No	Yes	(8)
Titanium	mg/kg	114	114	100%	N/A	N/A	346	853	370	110	NO	No	No	(6)
Tungsten	mg/kg	18	114	16%	0.25	2.7	0.3125	7.4	0.69	0.97	YES	No	Yes	(8)
Uranium	mg/kg	114	114	100%	N/A	N/A	0.99	8.3	1.2	0.98	NO	No	No	(6)
Vanadium	mg/kg	106	106	100%	N/A	N/A	13.3	277	35	35	YES	No	Yes	(8)
Zinc	mg/kg	114	114	100%	N/A	N/A	26.9	236	38	37	YES	No	Yes	(8)
Zirconium	mg/kg	95	95	100%	N/A	N/A	9.8	71.7	11	7.6	NO	No	No	(6)
Organochlorine Pesticides														
2,4-DDD	mg/kg	0	107	0%	0.00031	0.00035	ND	ND	0.00016	0.0000051	N/A	Yes	No	(2)
2,4-DDE	mg/kg	22	107	21%	0.0002	0.00023	0.0019	0.042	0.0017	0.0052	N/A	Yes	Yes	(1)(5)
4,4-DDD	mg/kg	0	107	0%	0.000089	0.0001	ND	ND	0.000047	0.0000014	N/A	Yes	No	(2)
4,4-DDE	mg/kg	23	107	21%	0.00019	0.00022	0.0019	0.069	0.0023	0.0081	N/A	Yes	Yes	(1)(5)
4,4-DDT	mg/kg	5	107	4.7%	0.0002	0.00023	0.0027	0.077	0.0012	0.0079	N/A	Yes	Yes	(7)
Aldrin	mg/kg	0	107	0%	0.000095	0.00011	ND	ND	0.00005	0.0000017	N/A	Yes	No	(2)
alpha-BHC	mg/kg	0	107	0%	0.00028	0.00033	ND	ND	0.00015	0.0000052	N/A	No	No	(2)
alpha-Chlordane	mg/kg	0	107	0%	0.00021	0.00024	ND	ND	0.00011	0.0000037	N/A	Yes	No	(2)
beta-BHC	mg/kg	7	107	7%	0.00019	0.00022	0.0018	0.0063	0.00028	0.00081	N/A	No	Yes	(5)
Chlordane	mg/kg	0	107	0%	0.0023	0.0027	ND	ND	0.0012	0.000042	N/A	Yes	No	(2)
delta-BHC	mg/kg	0	107	0%	0.00017	0.00019	ND	ND	0.000087	0.0000031	N/A	No	No	(2)
Dieldrin	mg/kg	0	107	0%	0.000091	0.00011	ND	ND	0.000048	0.0000015	N/A	Yes	No	(2)
Endosulfan I	mg/kg	0	107	0%	0.00011	0.00012	ND	ND	0.000056	0.0000016	N/A	No	No	(2)
Endosulfan II	mg/kg	0	107	0%	0.000093	0.00011	ND	ND	0.000049	0.0000016	N/A	No	No	(2)
Endosulfan sulfate	mg/kg	0	107	0%	0.00026	0.0003	ND	ND	0.00014	0.0000045	N/A	No	No	(2)
Endrin	mg/kg	0	107	0%	0.000083	0.000096	ND	ND	0.000043	0.0000014	N/A	No	No	(2)
Endrin aldehyde	mg/kg	1	107	1%	0.00018	0.00021	0.0028	0.0028	0.00012	0.00026	N/A	No	No	(4)(12)

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Endrin ketone	mg/kg	0	107	0%	0.00016	0.00019	ND	ND	0.000086	0.0000029	N/A	No	No	(2)
gamma-Chlordane	mg/kg	0	107	0%	0.000083	0.000096	ND	ND	0.000043	0.0000014	N/A	Yes	No	(2)
Heptachlor	mg/kg	0	107	0%	0.00017	0.0002	ND	ND	0.00009	0.0000031	N/A	No	No	(2)
Heptachlor epoxide	mg/kg	0	107	0%	0.00013	0.00015	ND	ND	0.000069	0.0000029	N/A	No	No	(2)
Lindane	mg/kg	0	107	0%	0.00012	0.00014	ND	ND	0.000065	0.0000024	N/A	No	No	(2)
Methoxychlor	mg/kg	0	107	0%	0.00032	0.00036	ND	ND	0.00017	0.0000052	N/A	No	No	(2)
Toxaphene	mg/kg	0	107	0%	0.0058	0.0067	ND	ND	0.003	0.000099	N/A	Yes	No	(2)
Radionuclides														
Radium-226	pCi/g	101	109	93%	0.83	1	1.02	3.11	1	0.45	NO	Yes	No	(1)(6)
Radium-228	pCi/g	98	109	90%	0.141	0.813	1.47	3.12	1.5	0.65	NO	Yes	No	(1)(6)
Thorium-228	pCi/g	108	109	99%	1.07	1.07	1.7	2.67	1.7	0.42	NO	Yes	No	(1)(6)
Thorium-230	pCi/g	90	109	83%	0.37	1	1.12	2.94	1.1	0.54	NO	Yes	No	(1)(6)
Thorium-232	pCi/g	109	109	100%	N/A	N/A	1.4	2.26	1.4	0.29	NO	Yes	No	(1)(6)
Uranium-233/234	pCi/g	83	109	76%	0.4	1	1.04	4.45	1.1	0.65	NO	Yes	No	(1)(6)
Uranium-235/236	pCi/g	23	109	21%	-0.126	1	0.093	0.281	0.069	0.083	NO	Yes	No	(1)(6)
Uranium-238	pCi/g	105	109	96%	0.147	1	0.91	3.02	1	0.45	NO	Yes	No	(1)(6)
Semi-Volatile Organic Compounds														
1,2,4,5-Tetrachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
1,2-Diphenylhydrazine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
1,4-Dioxane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,2'-/4,4'-Dichlorobenzil	mg/kg	0	107	0%	0.114	0.41	ND	ND	0.17	0.026	N/A	No	No	(2)
2,4,5-Trichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4,6-Trichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dichlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dimethylphenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2,4-Dinitrophenol	mg/kg	0	107	0%	0.131	0.38	ND	ND	0.17	0.023	N/A	No	No	(2)
2,4-Dinitrotoluene	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
2,6-Dinitrotoluene	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
2-Chloronaphthalene	mg/kg	0	107	0%	0.0121	0.039	ND	ND	0.017	0.0025	N/A	No	No	(2)
2-Chlorophenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2-Methylnaphthalene	mg/kg	0	107	0%	0.00691	0.039	ND	ND	0.017	0.003	N/A	No	No	(2)
2-Nitroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
2-Nitrophenol	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
3,3'-Dichlorobenzidine	mg/kg	0	107	0%	0.033	0.106	ND	ND	0.019	0.0075	N/A	No	No	(2)
3-Methylphenol & 4-Methylphenol	mg/kg	0	107	0%	0.067	0.142	ND	ND	0.037	0.0075	N/A	No	No	(2)
3-Nitroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
4-Bromophenyl phenyl ether	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chloro-3-Methylphenol	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chlorophenyl phenyl ether	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
4-Chlorothioanisole	mg/kg	0	107	0%	0.0076	0.117	ND	ND	0.0065	0.011	N/A	No	No	(2)
4-Nitrophenol	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Acetophenone	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
Aniline	mg/kg	0	107	0%	0.033	0.124	ND	ND	0.02	0.0093	N/A	No	No	(2)
Azobenzene	mg/kg	0	102	0%	0.033	0.039	ND	ND	0.017	0.00058	N/A	No	No	(2)
Benzenethiol	mg/kg	0	107	0%	0.114	0.14	ND	ND	0.065	0.0029	N/A	No	No	(2)
Benzoic acid	mg/kg	0	107	0%	0.033	0.177	ND	ND	0.021	0.015	N/A	No	No	(2)
Benzyl alcohol	mg/kg	0	107	0%	0.033	0.106	ND	ND	0.019	0.0075	N/A	No	No	(2)
Benzyl butyl phthalate	mg/kg	1	107	1%	0.033	0.0708	0.039	0.039	0.018	0.0043	N/A	No	No	(4)(12)
bis(2-Chloroethoxy) methane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
bis(2-Chloroethyl) ether	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
bis(2-Chloroisopropyl) ether	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
bis(2-Ethylhexyl) phthalate	mg/kg	3	107	3%	0.033	0.0708	0.039	0.058	0.019	0.0063	N/A	No	No	(4)(12)
bis(p-Chlorophenyl) disulfide	mg/kg	0	107	0%	0.114	0.23	ND	ND	0.1	0.011	N/A	No	No	(2)
bis(p-Chlorophenyl) sulfone	mg/kg	0	107	0%	0.114	0.38	ND	ND	0.17	0.025	N/A	No	No	(2)
Carbazole	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Dibenzofuran	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Dibutyl phthalate	mg/kg	0	107	0%	0.033	0.039	ND	ND	0.017	0.00057	N/A	No	No	(2)
Dichloromethyl ether	mg/kg	0	5	0%	0.114	0.117	ND	ND	0.058	0.00057	N/A	No	No	(2)
Diethyl phthalate	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Dimethyl phthalate	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Di-n-octyl phthalate	mg/kg	0	107	0%	0.015	0.0708	ND	ND	0.009	0.0058	N/A	No	No	(2)
Diphenyl sulfone	mg/kg	0	107	0%	0.0067	0.117	ND	ND	0.006	0.012	N/A	No	No	(2)
Diphenylamine	mg/kg	0	5	0%	0.0691	0.0708	ND	ND	0.035	0.00033	N/A	No	No	(2)
Fluoranthene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Fluorene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)
Hexachloro-1,3-butadiene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Hexachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
Hexachlorocyclopentadiene	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Hexachloroethane	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Hydroxymethyl phthalimide	mg/kg	0	107	0%	0.043	0.117	ND	ND	0.024	0.0075	N/A	No	No	(2)
Isophorone	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Naphthalene	mg/kg	0	107	0%	0.0104	0.039	ND	ND	0.017	0.0026	N/A	No	No	(2)

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Nitrobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
N-nitrosodi-n-propylamine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	Yes	No	(2)
N-nitrosodiphenylamine	mg/kg	0	102	0%	0.033	0.039	ND	ND	0.017	0.00058	N/A	No	No	(2)
o-Cresol	mg/kg	0	107	0%	0.0691	0.14	ND	ND	0.06	0.0062	N/A	No	No	(2)
Octachlorostyrene	mg/kg	0	107	0%	0.033	0.117	ND	ND	0.019	0.0086	N/A	No	No	(2)
p-Chloroaniline	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
p-Chlorothiophenol	mg/kg	0	107	0%	0.114	0.21	ND	ND	0.095	0.0088	N/A	No	No	(2)
Pentachlorobenzene	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Pentachlorophenol	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Phenol	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Phenyl Disulfide	mg/kg	0	107	0%	0.029	0.117	ND	ND	0.017	0.0091	N/A	No	No	(2)
Phenyl Sulfide	mg/kg	0	107	0%	0.0035	0.117	ND	ND	0.0045	0.012	N/A	No	No	(2)
Phthalic acid	mg/kg	0	107	0%	0.114	0.29	ND	ND	0.13	0.016	N/A	No	No	(2)
p-Nitroaniline	mg/kg	0	107	0%	0.0691	0.38	ND	ND	0.17	0.03	N/A	No	No	(2)
Pyridine	mg/kg	0	107	0%	0.033	0.0708	ND	ND	0.018	0.0038	N/A	No	No	(2)
Polynuclear Aromatic Hydrocarbons														
Acenaphthene	mg/kg	0	107	0%	0.00173	0.02	ND	ND	0.0089	0.0018	N/A	No	No	(2)
Acenaphthylene	mg/kg	0	107	0%	0.00173	0.018	ND	ND	0.0078	0.0016	N/A	No	No	(2)
Anthracene	mg/kg	0	107	0%	0.00067	0.00177	ND	ND	0.00038	0.00011	N/A	No	No	(2)
Benzo(a)anthracene	mg/kg	0	107	0%	0.0011	0.00177	ND	ND	0.00062	0.000061	N/A	No	No	(2)
Benzo(a)pyrene	mg/kg	0	107	0%	0.00173	0.0023	ND	ND	0.001	0.00005	N/A	Yes	No	(2)
Benzo(b)fluoranthene	mg/kg	0	107	0%	0.00173	0.0023	ND	ND	0.001	0.00005	N/A	No	No	(2)
Benzo(g,h,i)perylene	mg/kg	0	107	0%	0.00173	0.0071	ND	ND	0.0031	0.00051	N/A	No	No	(2)
Benzo(k)fluoranthene	mg/kg	0	107	0%	0.00173	0.0026	ND	ND	0.0012	0.000079	N/A	No	No	(2)
Chrysene	mg/kg	0	107	0%	0.0011	0.00177	ND	ND	0.00057	0.000069	N/A	No	No	(2)
Dibenzo(a,h)anthracene	mg/kg	0	107	0%	0.00173	0.0043	ND	ND	0.0019	0.00024	N/A	No	No	(2)
Indeno(1,2,3-cd)pyrene	mg/kg	0	107	0%	0.00173	0.0022	ND	ND	0.00099	0.000044	N/A	No	No	(2)
Phenanthrene	mg/kg	0	107	0%	0.0017	0.002	ND	ND	0.0009	0.000034	N/A	No	No	(2)
Pyrene	mg/kg	0	107	0%	0.00173	0.0034	ND	ND	0.0015	0.00015	N/A	No	No	(2)
Polychlorinated Biphenyls														
Aroclor 1016	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1221	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1232	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1242	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1248	mg/kg	0	67	0%	0.0049	0.0057	ND	ND	0.0026	0.000084	N/A	Yes	No	(2)
Aroclor 1254	mg/kg	0	67	0%	0.0027	0.0031	ND	ND	0.0014	0.000047	N/A	Yes	No	(2)

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Aroclor 1260	mg/kg	0	67	0%	0.0027	0.0031	ND	ND	0.0014	0.000047	N/A	Yes	No	(2)
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	mg/kg	1	102	1%	0.00018	0.00021	0.036	0.036	0.00045	0.0036	N/A	No	No	(4)(12)
1,1,1-Trichloroethane	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.0000016	N/A	No	No	(2)
1,1,2,2-Tetrachloroethane	mg/kg	0	102	0%	0.000078	0.00009	ND	ND	0.000041	0.0000013	N/A	No	No	(2)
1,1,2-Trichloroethane	mg/kg	0	102	0%	0.000067	0.000077	ND	ND	0.000035	0.0000011	N/A	No	No	(2)
1,1-Dichloroethane	mg/kg	0	102	0%	0.00007	0.000081	ND	ND	0.000037	0.0000012	N/A	No	No	(2)
1,1-Dichloroethylene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000062	0.0000029	N/A	No	No	(2)
1,1-Dichloropropene	mg/kg	0	102	0%	0.000087	0.0001	ND	ND	0.000046	0.0000014	N/A	No	No	(2)
1,2,3-Trichlorobenzene	mg/kg	0	102	0%	0.00039	0.00045	ND	ND	0.0002	0.000007	N/A	No	No	(2)
1,2,3-Trichloropropane	mg/kg	0	102	0%	0.00025	0.00029	ND	ND	0.00013	0.0000046	N/A	No	No	(2)
1,2,4-Trichlorobenzene	mg/kg	0	102	0%	0.00033	0.00038	ND	ND	0.00017	0.0000059	N/A	No	No	(2)
1,2,4-Trimethylbenzene	mg/kg	18	102	18%	0.00013	0.0058	0.00038	0.0015	0.00049	0.00086	N/A	No	Yes	(5)
1,2-Dibromo-3-chloropropane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000037	N/A	No	No	(2)
1,2-Dichlorobenzene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000063	0.0000029	N/A	No	No	(2)
1,2-Dichloroethane	mg/kg	0	102	0%	0.000066	0.000076	ND	ND	0.000035	0.0000011	N/A	No	No	(2)
1,2-Dichloroethylene	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.000002	N/A	No	No	(2)
1,2-Dichloropropane	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000057	0.0000029	N/A	No	No	(2)
1,3,5-Trichlorobenzene	mg/kg	0	102	0%	0.00037	0.00043	ND	ND	0.00019	0.0000067	N/A	No	No	(2)
1,3,5-Trimethylbenzene	mg/kg	1	102	1%	0.000097	0.00011	0.00053	0.00053	0.000055	0.000048	N/A	No	No	(4)(12)
1,3-Dichlorobenzene	mg/kg	0	102	0%	0.00013	0.00015	ND	ND	0.000069	0.000003	N/A	No	No	(2)
1,3-Dichloropropane	mg/kg	0	102	0%	0.000051	0.000059	ND	ND	0.000027	8.7E-07	N/A	No	No	(2)
1,4-Dichlorobenzene	mg/kg	0	102	0%	0.00014	0.00016	ND	ND	0.000071	0.0000025	N/A	No	No	(2)
1-Nonanal	mg/kg	2	102	2%	0.00047	0.00054	0.00067	0.0047	0.00029	0.00044	N/A	No	No	(4)
2,2,3-Trimethylbutane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
2,2-Dichloropropane	mg/kg	0	102	0%	0.00023	0.00027	ND	ND	0.00012	0.0000043	N/A	No	No	(2)
2,2-Dimethylpentane	mg/kg	0	102	0%	0.00028	0.00032	ND	ND	0.00014	0.0000048	N/A	No	No	(2)
2,3-Dimethylpentane	mg/kg	0	102	0%	0.00022	0.00026	ND	ND	0.00012	0.000004	N/A	No	No	(2)
2,4-Dimethylpentane	mg/kg	0	102	0%	0.00019	0.00022	ND	ND	0.0001	0.0000033	N/A	No	No	(2)
2-Chlorotoluene	mg/kg	0	102	0%	0.00025	0.00029	ND	ND	0.00013	0.0000045	N/A	No	No	(2)
2-Nitropropane	mg/kg	0	102	0%	0.0006	0.0007	ND	ND	0.00032	0.00001	N/A	No	No	(2)
2-Phenylbutane	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.0000018	N/A	No	No	(2)
3,3-dimethylpentane	mg/kg	0	102	0%	0.0002	0.00023	ND	ND	0.00011	0.0000034	N/A	No	No	(2)
3-ethylpentane	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
3-Methylhexane	mg/kg	0	102	0%	0.00014	0.00016	ND	ND	0.000073	0.0000031	N/A	No	No	(2)
4-Chlorotoluene	mg/kg	0	102	0%	0.00017	0.0002	ND	ND	0.00009	0.0000034	N/A	No	No	(2)

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
Acetone	mg/kg	15	102	15%	0.0017	0.09	0.012	0.16	0.0089	0.019	N/A	No	Yes	(5)
Acetonitrile	mg/kg	1	102	1%	0.0054	0.0063	0.033	0.033	0.0031	0.003	N/A	No	No	(4)(12)
Benzene	mg/kg	1	102	1%	0.000087	0.0001	0.00055	0.00055	0.000051	0.00005	N/A	Yes	Yes	(7)
Bromobenzene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000063	0.0000029	N/A	No	No	(2)
Bromodichloromethane	mg/kg	0	102	0%	0.00021	0.00025	ND	ND	0.00011	0.000004	N/A	No	No	(2)
Bromomethane	mg/kg	0	102	0%	0.00013	0.00015	ND	ND	0.000068	0.000003	N/A	No	No	(2)
Carbon disulfide	mg/kg	0	102	0%	0.00012	0.0055	ND	ND	0.00016	0.0005	N/A	No	No	(2)
Carbon tetrachloride	mg/kg	0	102	0%	0.00021	0.00024	ND	ND	0.00011	0.0000038	N/A	No	No	(2)
CFC-11	mg/kg	0	102	0%	0.00022	0.00025	ND	ND	0.00011	0.000004	N/A	No	No	(2)
CFC-12	mg/kg	0	102	0%	0.00029	0.00033	ND	ND	0.00015	0.000005	N/A	No	No	(2)
Chlorinated fluorocarbon (Freon 113)	mg/kg	0	102	0%	0.00015	0.00017	ND	ND	0.000076	0.0000024	N/A	No	No	(2)
Chlorobenzene	mg/kg	0	102	0%	0.00011	0.00012	ND	ND	0.000056	0.000002	N/A	No	No	(2)
Chlorobromomethane	mg/kg	0	102	0%	0.00023	0.00026	ND	ND	0.00012	0.000004	N/A	No	No	(2)
Chlorodibromomethane	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000061	0.0000025	N/A	No	No	(2)
Chloroethane	mg/kg	0	102	0%	0.00046	0.00053	ND	ND	0.00024	0.000008	N/A	No	No	(2)
Chloroform	mg/kg	0	102	0%	0.0001	0.0053	ND	ND	0.000077	0.00026	N/A	No	No	(2)
Chloromethane	mg/kg	0	102	0%	0.00027	0.00031	ND	ND	0.00014	0.0000048	N/A	No	No	(2)
cis-1,2-Dichloroethylene	mg/kg	0	102	0%	0.000054	0.000062	ND	ND	0.000028	9.2E-07	N/A	No	No	(2)
cis-1,3-Dichloropropylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Cymene	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000065	0.0000021	N/A	No	No	(2)
Dibromomethane	mg/kg	0	102	0%	0.00017	0.00019	ND	ND	0.000087	0.000003	N/A	No	No	(2)
Dichloromethane	mg/kg	15	102	15%	0.00069	0.022	0.0046	0.019	0.0026	0.0039	N/A	No	Yes	(5)
Ethanol	mg/kg	3	102	3%	0.047	0.055	0.19	0.47	0.033	0.053	N/A	No	No	(4)
Ethylbenzene	mg/kg	1	102	1%	0.000058	0.000067	0.00037	0.00037	0.000034	0.000034	N/A	No	No	(4)(12)
Hexane, 2-methyl-	mg/kg	0	102	0%	0.0002	0.00023	ND	ND	0.00011	0.0000034	N/A	No	No	(2)
Isopropylbenzene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000054	0.0000024	N/A	No	No	(2)
m,p-Xylene	mg/kg	1	102	1%	0.00017	0.00019	0.00088	0.00088	0.000095	0.000079	N/A	No	No	(4)(12)
Methyl disulfide	mg/kg	0	102	0%	0.00018	0.0002	ND	ND	0.000092	0.0000031	N/A	No	No	(2)
Methyl ethyl ketone	mg/kg	4	102	4%	0.00087	0.001	0.0013	0.018	0.00075	0.0019	N/A	No	No	(4)(12)
Methyl iodide	mg/kg	0	102	0%	0.00012	0.00014	ND	ND	0.000065	0.0000021	N/A	No	No	(2)
Methyl isobutyl ketone	mg/kg	0	102	0%	0.00029	0.00033	ND	ND	0.00015	0.0000051	N/A	No	No	(2)
Methyl n-butyl ketone	mg/kg	0	102	0%	0.00024	0.00027	ND	ND	0.00012	0.0000042	N/A	No	No	(2)
MTBE (Methyl tert-butyl ether)	mg/kg	0	102	0%	0.000089	0.0001	ND	ND	0.000047	0.0000014	N/A	No	No	(2)
n-Butyl benzene	mg/kg	0	102	0%	0.00018	0.00021	ND	ND	0.000094	0.0000036	N/A	No	No	(2)
n-Heptane	mg/kg	0	102	0%	0.00016	0.00019	ND	ND	0.000086	0.000003	N/A	No	No	(2)
n-Propyl benzene	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000057	0.0000027	N/A	No	No	(2)

TABLE 8C
SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	Number of Detects	Total Count	Detect Freq.	Min ND	Max ND	Min Detect	Max Detect	Mean	Standard Deviation	Greater than Background?	PBT(1) or Class A Carcinogen?	COPC?	Rationale
o-Xylene	mg/kg	0	102	0%	0.000076	0.000088	ND	ND	0.00004	0.0000013	N/A	No	No	(2)
Styrene (monomer)	mg/kg	0	102	0%	0.00017	0.0002	ND	ND	0.000091	0.0000031	N/A	No	No	(2)
tert-Butyl benzene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Tetrachloroethylene	mg/kg	0	102	0%	0.000087	0.0001	ND	ND	0.000046	0.0000014	N/A	No	No	(2)
Toluene	mg/kg	3	102	3%	0.00032	0.0055	0.0005	0.0015	0.00038	0.00067	N/A	No	No	(4)(12)
trans-1,2-Dichloroethylene	mg/kg	0	102	0%	0.00009	0.0001	ND	ND	0.000047	0.0000013	N/A	No	No	(2)
trans-1,3-Dichloropropylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000052	0.0000027	N/A	No	No	(2)
Tribromomethane	mg/kg	0	102	0%	0.000059	0.000068	ND	ND	0.000031	0.000001	N/A	No	No	(2)
Trichloroethylene	mg/kg	0	102	0%	0.0001	0.00012	ND	ND	0.000055	0.0000019	N/A	No	No	(2)
Vinyl acetate	mg/kg	0	101	0%	0.00024	0.00028	ND	ND	0.00013	0.0000045	N/A	No	No	(2)
Vinyl chloride	mg/kg	0	102	0%	0.00011	0.00013	ND	ND	0.000059	0.0000027	N/A	No	No	(2)
Xylenes (total)	mg/kg	0	102	0%	0.00023	0.00027	ND	ND	0.00012	0.0000042	N/A	No	No	(2)

pCi/g - picoCuries per gram
mg/kg - milligrams per kilogram
N/A - Not available or not applicable.
ND - Not detected.
Highlight indicates selected as COPC.
(1) Persistent, Bioaccumulative, and Toxic (PBT) Program.
(2) Not detected.
(3) Dioxin and PCB congeners are not evaluated separately. Dioxin and PCB congeners are evaluated as TCDD TEQs. The maximum TCDD TEQ was less than the 50 ppt residential BCL.
(4) Chemical detected in less than 5 percent of the samples and is not a PBT or Class A carcinogen.
(5) Chemical detected in greater than 5 percent of samples.
(6) Chemical concentrations are equivalent to background.
(7) Chemical detected in less than 5 percent of the samples, but is a PBT or Class A carcinogen.
(8) Based on statistical tests, Site concentrations are elevated compared to background.
(9) No toxicity criteria or applicable surrogate criteria are available.
(10) One carcinogenic polynuclear aromatic hydrocarbon (PAH) is a COPC, therefore all carcinogenic PAHs are COPCs.
(11) Lead was not selected as a COPC because the maximum concentration is below 400 ppb.
(12) Chemical detected in less than 5 percent of samples and below the residential BCL.

TABLE 9A
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Number of Samples	Number of Detects	Percent Detected	Min. ND	Max. ND	Min. Detect	Max. Detect	Average	Standard Deviation
Acetaldehyde	104	39	38%	0.15	0.54	0.15	1.5	0.29	0.31
Formaldehyde	104	68	65%	0.20	2.5	0.14	6.7	0.89	1.3
Antimony	114	1	1%	0.13	2.8	1.1	1.1	0.38	0.34
Ammonia	102	11	11%	0.78	5.0	0.83	15	0.75	1.6
Beryllium	114	114	100%	NA	NA	0.22	2.1	0.51	0.31
Chromium (Total)	114	114	100%	NA	NA	4.5	352	18	39
Chromium (VI)	111	39	35%	0.10	1.2	0.42	4.4	0.71	0.64
Cobalt	13	13	100%	NA	NA	3.0	22	11.2	7.5
Fluoride	102	82	80%	0.10	0.11	0.45	6.2	1.3	1.1
Mercury	110	17	15%	0.0050	0.035	0.012	0.028	0.0078	0.0050
Molybdenum	114	63	55%	0.19	2.9	0.23	14	0.79	1.3
Nickel	114	114	100%	NA	NA	6.4	45	14	7.2
Nitrate (as N)	102	102	100%	NA	NA	0.22	185	12	28.7
Perchlorate	97	85	88%	0.041	0.043	0.015	5.6	0.44	0.89
Silver	114	93	82%	0.044	0.11	0.042	0.45	0.083	0.063
Thallium	114	7	6%	0.15	1.2	0.33	7.0	0.35	0.74

TABLE 9A
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Number of Samples	Number of Detects	Percent Detected	Min. ND	Max. ND	Min. Detect	Max. Detect	Average	Standard Deviation
Tin	114	25	22%	0.30	0.75	0.31	4.4	0.33	0.46
Tungsten	114	18	16%	0.25	2.7	0.52	7.4	0.69	0.97
Vanadium	106	106	100%	NA	NA	13	277	35	35
Zinc	114	114	100%	NA	NA	18	236	38	37
2,4-DDE	107	22	21%	0.00020	0.00023	0.0019	0.042	0.0017	0.0052
4,4-DDE	107	23	21%	0.00019	0.00022	0.0019	0.069	0.0023	0.0081
4,4-DDT	107	5	5%	0.00020	0.00023	0.0027	0.077	0.0012	0.0079
beta-BHC	107	7	7%	0.00019	0.00022	0.0018	0.0063	0.00028	0.00081
1,2,4-Trimethylbenzene	102	18	18%	0.00013	0.0058	0.00038	0.0015	0.00049	0.00086
Acetone	102	15	15%	0.0017	0.090	0.012	0.16	0.0089	0.019
Benzene	102	1	1%	0.000087	0.00010	0.00055	0.00055	0.000051	0.000050
Dichloromethane	102	15	15%	0.00069	0.022	0.0046	0.019	0.0026	0.0039

1 - The EPC is either the maximum of the All, Fill, Surface, Surface-Fill, and No Fill 95 UCLs unless it exceeds the maximum detection concentration, then it is the maximum detected concentration.

EPC - Exposure point concentration.

UCL - Upper Confidence Limit

NA - Not applicable.

ND - Statistic not evaluated because all results were non-detect.

Units are in mg/kg.

TABLE 9A
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	95% UCL All	UCL Calc Method	95% UCL Fill	UCL Calc Method	95% UCL Surface	UCL Calc Method	95% UCL Surface - Fill	UCL Calc Method	95% UCL No Fill	UCL Calc Method	EPC[1]
Acetaldehyde	0.34	Student's-t UCL	0.37	Bootstrap Percentile UCL	0.36	Bootstrap Percentile UCL	0.34	Bootstrap Percentile UCL	0.35	Student's-t UCL	0.37
Formaldehyde	1.1	Bootstrap Percentile UCL	0.77	Bootstrap BCa UCL	1.8	Student's-t UCL	1.4	Student's-t UCL	1.2	Bootstrap Percentile UCL	1.8
Antimony	0.43	Bootstrap BCa UCL	0.58	Student's-t UCL	0.46	Bootstrap Percentile UCL	0.43	Bootstrap Percentile UCL	0.41	Student's-t UCL	0.58
Ammonia	1.0	Student's-t UCL	2.5	Student's-t UCL	0.94	Student's-t UCL	1.3	Student's-t UCL	0.74	Student's-t UCL	2.5
Beryllium	0.56	Student's-t UCL, Bootstrap Percentile UCL	0.53	Bootstrap BCa UCL	0.64	Student's-t UCL	0.72	Student's-t UCL	0.58	Bootstrap Percentile UCL	0.72
Chromium (Total)	24	Student's-t UCL	34	Student's-t UCL	31	Student's-t UCL	35	Student's-t UCL	24	Student's-t UCL	35
Chromium (VI)	0.81	Student's-t UCL	1.2	Student's-t UCL	0.94	Student's-t UCL	0.90	Student's-t UCL	0.74	Student's-t UCL	1.2
Cobalt	14.9	Student's-t UCL	--	--	--	--	--	--	--	--	14.9
Fluoride	1.5	Bootstrap BCa UCL	1.7	Bootstrap BCa UCL	1.5	Bootstrap BCa UCL	1.4	Bootstrap BCa UCL	1.6	Bootstrap BCa UCL	1.7
Mercury	0.0086	Student's-t UCL	0.010	Student's-t UCL	0.010	Student's-t UCL	0.010	Student's-t UCL	0.0085	Student's-t UCL	0.010
Molybdenum	1.0	Student's-t UCL	0.87	Bootstrap Percentile UCL	0.79	Bootstrap Percentile UCL	0.80	Student's-t UCL	1.1	Student's-t UCL	1.1
Nickel	15	Student's-t UCL	20	Bootstrap Percentile UCL	17	Bootstrap Percentile UCL	17	Student's-t UCL	14	Bootstrap Percentile UCL	20
Nitrate (as N)	17	Student's-t UCL	29	Student's-t UCL	26	Student's-t UCL	24	Student's-t UCL	17	Student's-t UCL	29
Perchlorate	0.59	Student's-t UCL	0.26	Student's-t UCL	0.72	Student's-t UCL	0.55	Student's-t UCL	0.69	Student's-t UCL	0.72
Silver	0.093	Student's-t UCL	0.14	Student's-t UCL	0.10	Student's-t UCL	0.094	Student's-t UCL	0.085	Student's-t UCL	0.14
Thallium	0.46	Student's-t UCL	0.30	Bootstrap Percentile UCL	0.43	Bootstrap Percentile UCL	0.52	Student's-t UCL	0.52	Student's-t UCL	0.52

TABLE 9A
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	95% UCL All	UCL Calc Method	95% UCL Fill	UCL Calc Method	95% UCL Surface	UCL Calc Method	95% UCL Surface - Fill	UCL Calc Method	95% UCL No Fill	UCL Calc Method	EPC[1]
Tin	0.40	Student's-t UCL	0.84	Student's-t UCL	0.50	Student's-t UCL	0.38	Bootstrap Percentile UCL	0.30	Student's-t UCL	0.84
Tungsten	0.84	Student's-t UCL	1.3	Student's-t UCL	1.1	Student's-t UCL	1.1	Student's-t UCL	0.79	Student's-t UCL	1.3
Vanadium	42	Bootstrap BCa UCL	44	Bootstrap BCa UCL	60	Bootstrap BCa UCL	52	Bootstrap BCa UCL	45	Bootstrap BCa UCL	60
Zinc	44	Bootstrap Percentile UCL	38	Student's-t UCL	52	Student's-t UCL	61	Student's-t UCL	47	Bootstrap Percentile UCL	61
2,4-DDE	0.0025	Student's-t UCL	0.0053	Bootstrap Percentile UCL	0.0037	Student's-t UCL	0.0039	Student's-t UCL	0.0020	Student's-t UCL	0.0053
4,4-DDE	0.0036	Student's-t UCL	0.0062	Student's-t UCL	0.0060	Bootstrap Percentile UCL	0.0054	Student's-t UCL	0.0033	Student's-t UCL	0.0062
4,4-DDT	0.0024	Student's-t UCL	0.0010	Student's-t UCL	0.0057	Student's-t UCL	0.0037	Student's-t UCL	0.0031	Student's-t UCL	0.0057
beta-BHC	0.00041	Student's-t UCL	0.00062	Bootstrap Percentile UCL	0.00053	Student's-t UCL	0.00050	Student's-t UCL	0.00040	Student's-t UCL	0.00062
1,2,4-Trimethylbenzene	0.00063	Student's-t UCL	0.0012	Bootstrap Percentile UCL	0.00067	Bootstrap Percentile UCL	0.00076	Student's-t UCL	0.00055	Bootstrap Percentile UCL	0.0012
Acetone	0.012	Student's-t UCL	0.012	Bootstrap Percentile UCL	0.019	Student's-t UCL	0.016	Student's-t UCL	0.013	Student's-t UCL	0.019
Benzene	0.000059	Student's-t UCL	0.000045	Bootstrap Percentile UCL	0.000077	Student's-t UCL	0.000066	Student's-t UCL	0.000062	Student's-t UCL	0.000077
Dichloromethane	0.0033	Student's-t UCL	0.0032	Bootstrap Percentile UCL	0.0041	Student's-t UCL	0.0035	Student's-t UCL	0.0035	Bootstrap Percentile UCL	0.0041

1 - The EPC is either the maximum of the All, Fill, Surface, Surface-Fill, and No Fill 95 UCLs unless it exceeds the maximum detection concentration, then it is the maximum detected concentration.
EPC - Exposure point concentration.
UCL - Upper Confidence Limit
NA - Not applicable.
ND - Statistic not evaluated because all results were non-detect.
Units are in mg/kg.

TABLE 9B
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Number of Samples	Number of Detects	Percent Detected	Min. ND	Max. ND	Min. Detect	Max. Detect	Average	Standard Deviation
Acetaldehyde	104	39	38%	0.15	0.54	0.15	1.5	0.29	0.31
Formaldehyde	104	68	65%	0.20	2.5	0.14	6.7	0.89	1.3
Antimony	114	1	1%	0.13	2.8	1.1	1.1	0.38	0.34
Ammonia	102	11	11%	0.78	5.0	0.83	15	0.75	1.6
Beryllium	114	114	100%	NA	NA	0.22	2.1	0.51	0.31
Chromium (Total)	114	114	100%	NA	NA	4.5	352	18	39
Chromium (VI)	111	39	35%	0.10	1.2	0.42	4.4	0.71	0.64
Fluoride	102	82	80%	0.10	0.11	0.45	6.2	1.3	1.1
Mercury	110	17	15%	0.0050	0.035	0.012	0.028	0.0078	0.0050
Molybdenum	114	63	55%	0.19	2.9	0.23	14	0.79	1.3
Nickel	114	114	100%	NA	NA	6.4	45	14	7.2
Nitrate (as N)	102	102	100%	NA	NA	0.22	185	12	28.7
Perchlorate	97	85	88%	0.041	0.043	0.015	5.6	0.44	0.89
Silver	114	93	82%	0.044	0.11	0.042	0.45	0.083	0.063
Thallium	114	7	6%	0.15	1.2	0.33	7.0	0.35	0.74
Tin	114	25	22%	0.30	0.75	0.31	4.4	0.33	0.46

TABLE 9B
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Number of Samples	Number of Detects	Percent Detected	Min. ND	Max. ND	Min. Detect	Max. Detect	Average	Standard Deviation
Tungsten	114	18	16%	0.25	2.7	0.52	7.4	0.69	0.97
Vanadium	8	8	100%	NA	NA	33	458	140	149
Zinc	114	114	100%	NA	NA	18	236	38	37
2,4-DDE	107	22	21%	0.00020	0.00023	0.0019	0.042	0.0017	0.0052
4,4-DDE	107	23	21%	0.00019	0.00022	0.0019	0.069	0.0023	0.0081
4,4-DDT	107	5	5%	0.00020	0.00023	0.0027	0.077	0.0012	0.0079
beta-BHC	107	7	7%	0.00019	0.00022	0.0018	0.0063	0.00028	0.00081
1,2,4-Trimethylbenzene	102	18	18%	0.00013	0.0058	0.00038	0.0015	0.00049	0.00086
Acetone	102	15	15%	0.0017	0.090	0.012	0.16	0.0089	0.019
Benzene	102	1	1%	0.000087	0.00010	0.00055	0.00055	0.000051	0.000050
Dichloromethane	102	15	15%	0.00069	0.022	0.0046	0.019	0.0026	0.0039

1 - The EPC is either the maximum of the All, Fill, Surface, Surface-Fill, and No Fill 95 UCLs unless it exceeds the maximum detection concentration, then it is the maximum detected concentration.

EPC - Exposure point concentration.

UCL - Upper Confidence Limit

NA - Not applicable.

ND - Statistic not evaluated because all results were non-detect.

Units are in mg/kg.

TABLE 9B
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 3 of 4)

Chemical	95% UCL All	UCL Calc Method	95% UCL Fill	UCL Calc Method	95% UCL Surface	UCL Calc Method	95% UCL Surface - Fill	UCL Calc Method	95% UCL No Fill	UCL Calc Method	EPC[1]
Acetaldehyde	0.34	Student's-t UCL	0.37	Bootstrap Percentile UCL	0.36	Bootstrap Percentile UCL	0.34	Bootstrap Percentile UCL	0.35	Student's-t UCL	0.37
Formaldehyde	1.1	Bootstrap Percentile UCL	0.77	Bootstrap BCa UCL	1.8	Student's-t UCL	1.4	Student's-t UCL	1.2	Bootstrap Percentile UCL	1.8
Antimony	0.43	Bootstrap BCa UCL	0.58	Student's-t UCL	0.46	Bootstrap Percentile UCL	0.43	Bootstrap Percentile UCL	0.41	Student's-t UCL	0.58
Ammonia	1.0	Student's-t UCL	2.5	Student's-t UCL	0.94	Student's-t UCL	1.3	Student's-t UCL	0.74	Student's-t UCL	2.5
Beryllium	0.56	Student's-t UCL, Bootstrap Percentile UCL	0.53	Bootstrap BCa UCL	0.64	Student's-t UCL	0.72	Student's-t UCL	0.58	Bootstrap Percentile UCL	0.72
Chromium (Total)	24	Student's-t UCL	34	Student's-t UCL	31	Student's-t UCL	35	Student's-t UCL	24	Student's-t UCL	35
Chromium (VI)	0.81	Student's-t UCL	1.2	Student's-t UCL	0.94	Student's-t UCL	0.90	Student's-t UCL	0.74	Student's-t UCL	1.2
Fluoride	1.5	Bootstrap BCa UCL	1.7	Bootstrap BCa UCL	1.5	Bootstrap BCa UCL	1.4	Bootstrap BCa UCL	1.6	Bootstrap BCa UCL	1.7
Mercury	0.0086	Student's-t UCL	0.010	Student's-t UCL	0.010	Student's-t UCL	0.010	Student's-t UCL	0.0085	Student's-t UCL	0.010
Molybdenum	1.0	Student's-t UCL	0.87	Bootstrap Percentile UCL	0.79	Bootstrap Percentile UCL	0.80	Student's-t UCL	1.1	Student's-t UCL	1.1
Nickel	15	Student's-t UCL	20	Bootstrap Percentile UCL	17	Bootstrap Percentile UCL	17	Student's-t UCL	14	Bootstrap Percentile UCL	20
Nitrate (as N)	17	Student's-t UCL	29	Student's-t UCL	26	Student's-t UCL	24	Student's-t UCL	17	Student's-t UCL	29
Perchlorate	0.59	Student's-t UCL	0.26	Student's-t UCL	0.72	Student's-t UCL	0.55	Student's-t UCL	0.69	Student's-t UCL	0.72
Silver	0.093	Student's-t UCL	0.14	Student's-t UCL	0.10	Student's-t UCL	0.094	Student's-t UCL	0.085	Student's-t UCL	0.14
Thallium	0.46	Student's-t UCL	0.30	Bootstrap Percentile UCL	0.43	Bootstrap Percentile UCL	0.52	Student's-t UCL	0.52	Student's-t UCL	0.52
Tin	0.40	Student's-t UCL	0.84	Student's-t UCL	0.50	Student's-t UCL	0.38	Bootstrap Percentile UCL	0.30	Student's-t UCL	0.84

TABLE 9B
EXPOSURE POINT CONCENTRATIONS IN SOIL - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	95% UCL All	UCL Calc Method	95% UCL Fill	UCL Calc Method	95% UCL Surface	UCL Calc Method	95% UCL Surface - Fill	UCL Calc Method	95% UCL No Fill	UCL Calc Method	EPC[1]
Tungsten	0.84	Student's-t UCL	1.3	Student's-t UCL	1.1	Student's-t UCL	1.1	Student's-t UCL	0.79	Student's-t UCL	1.3
Vanadium	264	Bootstrap BCa UCL	--	--	--	--	--	--	--	--	264
Zinc	44	Bootstrap Percentile UCL	38	Student's-t UCL	52	Student's-t UCL	61	Student's-t UCL	47	Bootstrap Percentile UCL	61
2,4-DDE	0.0025	Student's-t UCL	0.0053	Bootstrap Percentile UCL	0.0037	Student's-t UCL	0.0039	Student's-t UCL	0.0020	Student's-t UCL	0.0053
4,4-DDE	0.0036	Student's-t UCL	0.0062	Student's-t UCL	0.0060	Bootstrap Percentile UCL	0.0054	Student's-t UCL	0.0033	Student's-t UCL	0.0062
4,4-DDT	0.0024	Student's-t UCL	0.0010	Student's-t UCL	0.0057	Student's-t UCL	0.0037	Student's-t UCL	0.0031	Student's-t UCL	0.0057
beta-BHC	0.00041	Student's-t UCL	0.00062	Bootstrap Percentile UCL	0.00053	Student's-t UCL	0.00050	Student's-t UCL	0.00040	Student's-t UCL	0.00062
1,2,4-Trimethylbenzene	0.00063	Student's-t UCL	0.0012	Bootstrap Percentile UCL	0.00067	Bootstrap Percentile UCL	0.00076	Student's-t UCL	0.00055	Bootstrap Percentile UCL	0.0012
Acetone	0.012	Student's-t UCL	0.012	Bootstrap Percentile UCL	0.019	Student's-t UCL	0.016	Student's-t UCL	0.013	Student's-t UCL	0.019
Benzene	0.000059	Student's-t UCL	0.000045	Bootstrap Percentile UCL	0.000077	Student's-t UCL	0.000066	Student's-t UCL	0.000062	Student's-t UCL	0.000077
Dichloromethane	0.0033	Student's-t UCL	0.0032	Bootstrap Percentile UCL	0.0041	Student's-t UCL	0.0035	Student's-t UCL	0.0035	Bootstrap Percentile UCL	0.0041

1 - The EPC is either the maximum of the All, Fill, Surface, Surface-Fill, and No Fill 95 UCLs unless it exceeds the maximum detection concentration, then it is the maximum detected concentration.

EPC - Exposure point concentration.

UCL - Upper Confidence Limit

NA - Not applicable.

ND - Statistic not evaluated because all results were non-detect.

Units are in mg/kg.

TABLE 9C
EXPOSURE POINT CONCENTRATIONS IN SOIL - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Number of Samples	Number of Detects	Percent Detected	Min. ND	Max. ND	Min. Detect	Max. Detect	Average	Standard Deviation
Acetaldehyde	104	39	38%	0.15	0.54	0.15	1.5	0.29	0.31
Formaldehyde	104	68	65%	0.20	2.5	0.14	6.7	0.89	1.3
Antimony	114	1	1%	0.13	2.8	1.1	1.1	0.38	0.34
Ammonia	102	11	11%	0.78	5.0	0.83	15	0.75	1.6
Beryllium	114	114	100%	NA	NA	0.22	2.1	0.51	0.31
Chromium (Total)	114	114	100%	NA	NA	4.5	352	18	39
Chromium (VI)	111	39	35%	0.10	1.2	0.42	4.4	0.71	0.64
Fluoride	102	82	80%	0.10	0.11	0.45	6.2	1.3	1.1
Mercury	110	17	15%	0.0050	0.035	0.012	0.028	0.0078	0.0050
Molybdenum	114	63	55%	0.19	2.9	0.23	14	0.79	1.3
Nickel	114	114	100%	NA	NA	6.4	45	14	7.2
Nitrate (as N)	102	102	100%	NA	NA	0.22	185	12	28.7
Perchlorate	97	85	88%	0.041	0.043	0.015	5.6	0.44	0.89
Silver	114	93	82%	0.044	0.11	0.042	0.45	0.083	0.063
Thallium	114	7	6%	0.15	1.2	0.33	7.0	0.35	0.74
Tin	114	25	22%	0.30	0.75	0.31	4.4	0.33	0.46

TABLE 9C
EXPOSURE POINT CONCENTRATIONS IN SOIL - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Number of Samples	Number of Detects	Percent Detected	Min. ND	Max. ND	Min. Detect	Max. Detect	Average	Standard Deviation
Tungsten	114	18	16%	0.25	2.7	0.52	7.4	0.69	0.97
Vanadium	106	106	100%	NA	NA	13	277	35	35
Zinc	114	114	100%	NA	NA	18	236	38	37
2,4-DDE	107	22	21%	0.00020	0.00023	0.0019	0.042	0.0017	0.0052
4,4-DDE	107	23	21%	0.00019	0.00022	0.0019	0.069	0.0023	0.0081
4,4-DDT	107	5	5%	0.00020	0.00023	0.0027	0.077	0.0012	0.0079
beta-BHC	107	7	7%	0.00019	0.00022	0.0018	0.0063	0.00028	0.00081
1,2,4-Trimethylbenzene	102	18	18%	0.00013	0.0058	0.00038	0.0015	0.00049	0.00086
Acetone	102	15	15%	0.0017	0.090	0.012	0.16	0.0089	0.019
Benzene	102	1	1%	0.000087	0.00010	0.00055	0.00055	0.000051	0.000050
Dichloromethane	102	15	15%	0.00069	0.022	0.0046	0.019	0.0026	0.0039

1 - The EPC is either the maximum of the All, Fill, Surface, Surface-Fill, and No Fill 95 UCLs unless it exceeds the maximum detection concentration, then it is the maximum detected concentration.

EPC - Exposure point concentration.

UCL - Upper Confidence Limit

NA - Not applicable.

ND - Statistic not evaluated because all results were non-detect.

Units are in mg/kg.

TABLE 9C
EXPOSURE POINT CONCENTRATIONS IN SOIL - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	95% UCL All	UCL Calc Method	95% UCL Fill	UCL Calc Method	95% UCL Surface	UCL Calc Method	95% UCL Surface - Fill	UCL Calc Method	95% UCL No Fill	UCL Calc Method	EPC[1]
Acetaldehyde	0.34	Student's-t UCL	0.37	Bootstrap Percentile UCL	0.36	Bootstrap Percentile UCL	0.34	Bootstrap Percentile UCL	0.35	Student's-t UCL	0.37
Formaldehyde	1.1	Bootstrap Percentile UCL	0.77	Bootstrap BCa UCL	1.8	Student's-t UCL	1.4	Student's-t UCL	1.2	Bootstrap Percentile UCL	1.8
Antimony	0.43	Bootstrap BCa UCL	0.58	Student's-t UCL	0.46	Bootstrap Percentile UCL	0.43	Bootstrap Percentile UCL	0.41	Student's-t UCL	0.58
Ammonia	1.0	Student's-t UCL	2.5	Student's-t UCL	0.94	Student's-t UCL	1.3	Student's-t UCL	0.74	Student's-t UCL	2.5
Beryllium	0.56	Student's-t UCL, Bootstrap Percentile UCL	0.53	Bootstrap BCa UCL	0.64	Student's-t UCL	0.72	Student's-t UCL	0.58	Bootstrap Percentile UCL	0.72
Chromium (Total)	24	Student's-t UCL	34	Student's-t UCL	31	Student's-t UCL	35	Student's-t UCL	24	Student's-t UCL	35
Chromium (VI)	0.81	Student's-t UCL	1.2	Student's-t UCL	0.94	Student's-t UCL	0.90	Student's-t UCL	0.74	Student's-t UCL	1.2
Fluoride	1.5	Bootstrap BCa UCL	1.7	Bootstrap BCa UCL	1.5	Bootstrap BCa UCL	1.4	Bootstrap BCa UCL	1.6	Bootstrap BCa UCL	1.7
Mercury	0.0086	Student's-t UCL	0.010	Student's-t UCL	0.010	Student's-t UCL	0.010	Student's-t UCL	0.0085	Student's-t UCL	0.010
Molybdenum	1.0	Student's-t UCL	0.87	Bootstrap Percentile UCL	0.79	Bootstrap Percentile UCL	0.80	Student's-t UCL	1.1	Student's-t UCL	1.1
Nickel	15	Student's-t UCL	20	Bootstrap Percentile UCL	17	Bootstrap Percentile UCL	17	Student's-t UCL	14	Bootstrap Percentile UCL	20
Nitrate (as N)	17	Student's-t UCL	29	Student's-t UCL	26	Student's-t UCL	24	Student's-t UCL	17	Student's-t UCL	29
Perchlorate	0.59	Student's-t UCL	0.26	Student's-t UCL	0.72	Student's-t UCL	0.55	Student's-t UCL	0.69	Student's-t UCL	0.72
Silver	0.093	Student's-t UCL	0.14	Student's-t UCL	0.10	Student's-t UCL	0.094	Student's-t UCL	0.085	Student's-t UCL	0.14
Thallium	0.46	Student's-t UCL	0.30	Bootstrap Percentile UCL	0.43	Bootstrap Percentile UCL	0.52	Student's-t UCL	0.52	Student's-t UCL	0.52
Tin	0.40	Student's-t UCL	0.84	Student's-t UCL	0.50	Student's-t UCL	0.38	Bootstrap Percentile UCL	0.30	Student's-t UCL	0.84

TABLE 9C
EXPOSURE POINT CONCENTRATIONS IN SOIL - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	95% UCL All	UCL Calc Method	95% UCL Fill	UCL Calc Method	95% UCL Surface	UCL Calc Method	95% UCL Surface - Fill	UCL Calc Method	95% UCL No Fill	UCL Calc Method	EPC[1]
Tungsten	0.84	Student's-t UCL	1.3	Student's-t UCL	1.1	Student's-t UCL	1.1	Student's-t UCL	0.79	Student's-t UCL	1.3
Vanadium	42	Bootstrap BCa UCL	44	Bootstrap BCa UCL	60	Bootstrap BCa UCL	52	Bootstrap BCa UCL	45	Bootstrap BCa UCL	60
Zinc	44	Bootstrap Percentile UCL	38	Student's-t UCL	52	Student's-t UCL	61	Student's-t UCL	47	Bootstrap Percentile UCL	61
2,4-DDE	0.0025	Student's-t UCL	0.0053	Bootstrap Percentile UCL	0.0037	Student's-t UCL	0.0039	Student's-t UCL	0.0020	Student's-t UCL	0.0053
4,4-DDE	0.0036	Student's-t UCL	0.0062	Student's-t UCL	0.0060	Bootstrap Percentile UCL	0.0054	Student's-t UCL	0.0033	Student's-t UCL	0.0062
4,4-DDT	0.0024	Student's-t UCL	0.0010	Student's-t UCL	0.0057	Student's-t UCL	0.0037	Student's-t UCL	0.0031	Student's-t UCL	0.0057
beta-BHC	0.00041	Student's-t UCL	0.00062	Bootstrap Percentile UCL	0.00053	Student's-t UCL	0.00050	Student's-t UCL	0.00040	Student's-t UCL	0.00062
1,2,4-Trimethylbenzene	0.00063	Student's-t UCL	0.0012	Bootstrap Percentile UCL	0.00067	Bootstrap Percentile UCL	0.00076	Student's-t UCL	0.00055	Bootstrap Percentile UCL	0.0012
Acetone	0.012	Student's-t UCL	0.012	Bootstrap Percentile UCL	0.019	Student's-t UCL	0.016	Student's-t UCL	0.013	Student's-t UCL	0.019
Benzene	0.000059	Student's-t UCL	0.000045	Bootstrap Percentile UCL	0.000077	Student's-t UCL	0.000066	Student's-t UCL	0.000062	Student's-t UCL	0.000077
Dichloromethane	0.0033	Student's-t UCL	0.0032	Bootstrap Percentile UCL	0.0041	Student's-t UCL	0.0035	Student's-t UCL	0.0035	Bootstrap Percentile UCL	0.0041

1 - The EPC is either the maximum of the All, Fill, Surface, Surface-Fill, and No Fill 95 UCLs unless it exceeds the maximum detection concentration, then it is the maximum detected concentration.

EPC - Exposure point concentration.

UCL - Upper Confidence Limit

NA - Not applicable.

ND - Statistic not evaluated because all results were non-detect.

Units are in mg/kg.

TABLE 10
ASBESTOS RESULTS AND ANALYTICAL SENSITIVITIES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

					Concentration Protocol Structures[1]		Number of Protocol Structures[2]			
					Chrysotile	Amphibole	Chrysotile		Amphibole	
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Analytical Sensitivity (10^6 s/gPM$_{10}$)	(10^6 s/gPM$_{10}$)	(10^6 s/gPM$_{10}$)	Total	Long	Total	Long
MC1-A01	0	N	10/8/2008	2.992	1.885 E+7	< 2.992 E+6	4	2	0	0
MC1-A01	0	FD	10/8/2008	2.994	1.887 E+7	< 2.994 E+6	2	2	0	0
MC1-A02	0	N	10/8/2008	2.983	< 2.983 E+6	< 2.983 E+6	0	0	0	0
MC1-A03	0	N	10/8/2008	2.983	1.414 E+7	< 2.983 E+6	1	1	0	0
MC1-A04	0	N	10/8/2008	2.986	< 2.986 E+6	< 2.986 E+6	0	0	0	0
MC1-A05	0	N	10/8/2008	2.978	1.412 E+7	< 2.978 E+6	3	1	0	0
MC1-A06	0	N	10/8/2008	2.982	< 2.982 E+6	< 2.982 E+6	0	0	0	0
MC1-A07	0	N	10/8/2008	2.991	< 2.991 E+6	< 2.991 E+6	0	0	0	0
MC1-AV37R	0	N	1/6/2009	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-AV38	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-AW36	0	N	6/18/2008	2.959	< 2.959 E+6	< 2.959 E+6	0	0	0	0
MC1-AW37R	0	N	1/6/2009	2.975	< 2.975 E+6	< 2.975 E+6	0	0	0	0
MC1-AW37R	0	FD	1/6/2009	2.979	< 2.979 E+6	< 2.979 E+6	0	0	0	0
MC1-AW38	0	N	6/18/2008	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-AW39	0	N	6/18/2008	2.975	< 2.975 E+6	< 2.975 E+6	3	0	0	0
MC1-AX36	0	N	6/18/2008	2.988	1.195 E+7	< 2.988 E+6	5	4	0	0
MC1-AX37	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	1	0	0	0
MC1-AX38	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-AX-39	0	N	6/18/2008	2.971	< 2.971 E+6	< 2.971 E+6	0	0	0	0
MC1-AX-40	0	N	6/18/2008	2.400	< 2.400 E+6	< 2.400 E+6	1	0	0	0
MC1-AY36	0	N	6/18/2008	2.966	< 2.966 E+6	< 2.966 E+6	0	0	0	0
MC1-AY37	0	N	6/18/2008	2.699	< 2.699 E+6	< 2.699 E+6	0	0	0	0
MC1-AY38	0	N	6/18/2008	2.934	1.391 E+7	< 2.934 E+6	1	1	0	0
MC1-AY39	0	N	6/18/2008	2.978	< 2.978 E+6	< 2.978 E+6	0	0	0	0
MC1-AY39	0	FD	6/18/2008	2.952	< 2.952 E+6	< 2.952 E+6	0	0	0	0
MC1-AZ36	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	2	0	0	0
MC1-AZ37R	0	N	1/6/2009	2.991	< 2.991 E+6	< 2.991 E+6	1	0	1	0
MC1-BA36	0	N	6/18/2008	2.973	1.409 E+7	< 2.973 E+6	3	1	0	0
MC1-J01	0	N	6/18/2008	2.969	< 2.969 E+6	< 2.969 E+6	0	0	0	0
MC1-J02	0	N	6/18/2008	2.978	1.876 E+7	< 2.978 E+6	7	2	0	0
MC1-J03	0	N	6/18/2008	2.993	< 2.993 E+6	< 2.993 E+6	0	0	0	0
MC1-J04	0	N	6/18/2008	2.975	< 2.975 E+6	< 2.975 E+6	0	0	0	0
MC1-J05	0	N	6/18/2008	2.966	< 2.966 E+6	< 2.966 E+6	0	0	0	0
MC1-J06	0	N	6/18/2008	2.978	1.412 E+7	< 2.978 E+6	2	1	0	0
MC1-J07	0	N	6/18/2008	2.973	< 2.973 E+6	< 2.973 E+6	1	0	0	0
MC1-J08	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	1	0	0	0
MC1-J09	0	N	6/18/2008	2.972	< 2.972 E+6	< 2.972 E+6	0	0	0	0
MC1-J10	0	N	6/18/2008	2.986	< 2.986 E+6	< 2.986 E+6	0	0	0	0
MC1-J10	0	FD	6/18/2008	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-J11	0	N	6/18/2008	2.961	< 2.961 E+6	< 2.961 E+6	2	0	0	0
MC1-J12	0	N	6/18/2008	2.988	< 2.988 E+6	< 2.988 E+6	0	0	0	0
MC1-J13	0	N	6/18/2008	2.917	1.838 E+7	< 2.917 E+6	4	2	0	0
MC1-J14	0	N	6/18/2008	2.998	1.421 E+7	< 2.998 E+6	1	1	0	0
MC1-J15	0	N	6/18/2008	2.992	< 2.992 E+6	< 2.992 E+6	0	0	0	0
MC1-J16	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-J17	0	N	6/18/2008	2.995	1.887 E+7	< 2.995 E+6	3	2	0	0
MC1-J18	0	N	6/18/2008	2.966	< 2.966 E+6	< 2.966 E+6	0	0	0	0
MC1-J18	0	FD	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-J19	0	N	6/18/2008	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-J20	0	N	6/18/2008	2.919	< 2.919 E+6	< 2.919 E+6	0	0	0	0
MC1-J28	0	N	1/6/2009	2.987	< 2.987 E+6	< 2.987 E+6	0	0	0	0
MC1-J29	0	N	1/6/2009	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-J30	0	N	1/6/2009	2.997	< 2.997 E+6	< 2.997 E+6	0	0	0	0
MC1-J31	0	N	1/6/2009	2.975	< 2.975 E+6	< 2.975 E+6	0	0	0	0

(1) Fiber dimensions are presented in the respective analytical reports for each sample.

(2) Only long structures (>10µm) present a potential risk and are used for estimating asbestos risks. Total fiber concentrations are presented for informational purposes only. Protocol structures are structures longer than 10 µm and thinner than 0.4 µm.

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 12)

	MC1-BA36				MC1-J01				MC1-J02				MC1-J02R			
Chemical	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
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-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	F	3.4 E-5	1.4 E-5	1.1 E-5	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	--	--	--	--	--	--	--	--	F	1.0 E-5	4.1 E-6	3.4 E-6	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Phenylbutane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	F	1.9 E-4	7.4 E-5	6.2 E-5	F	2.9 E-4	1.2 E-4	9.6 E-5	F	1.6 E-4	6.2 E-5	5.2 E-5	F	1.0 E-4	4.1 E-5	3.4 E-5
Acetonitrile	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	S	4.1 E-6	1.7 E-6	1.4 E-6	--	--	--	--	--	--	--	--	--	--	--	--
Benzyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	F	1.0 E-5	4.1 E-6	3.4 E-6	F	8.4 E-6	3.4 E-6	2.8 E-6	--	--	--	--	--	--	--	--
Carbon tetrachloride	S	2.5 E-6	9.8 E-7	8.2 E-7	--	--	--	--	S	7.2 E-6	2.9 E-6	2.4 E-6	S	5.8 E-6	2.3 E-6	1.9 E-6
Freon 11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	F	2.1 E-5	8.4 E-6	7.0 E-6	F	2.1 E-5	8.4 E-6	7.0 E-6	F	2.5 E-5	9.8 E-6	8.2 E-6	F	2.3 E-5	9.1 E-6	7.6 E-6
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorodibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	S	7.8 E-6	3.1 E-6	2.6 E-6	F	2.0 E-5	8.2 E-6	6.8 E-6	S	3.2 E-6	1.3 E-6	1.1 E-6	S	3.4 E-6	1.3 E-6	1.1 E-6
Chloromethane	F	5.8 E-6	2.3 E-6	1.9 E-6	F	9.6 E-6	3.8 E-6	3.2 E-6	F	1.6 E-5	6.2 E-6	5.2 E-6	F	1.3 E-5	5.0 E-6	4.2 E-6
cis-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cymene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane	S	9.6 E-7	3.8 E-7	3.2 E-7	S	7.8 E-7	3.1 E-7	2.6 E-7	S	1.6 E-6	6.5 E-7	5.4 E-7	S	1.2 E-6	4.8 E-7	4.0 E-7
Ethanol	--	--	--	--	F	9.6 E-5	3.8 E-5	3.2 E-5	F	5.3 E-5	2.1 E-5	1.8 E-5	--	--	--	--

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	MC1-BA36				MC1-J01				MC1-J02				MC1-J02R			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m & p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl ethyl ketone	--	--	--	--	F	1.0 E-5	4.1 E-6	3.4 E-6	F	1.4 E-4	5.8 E-5	4.8 E-5	--	--	--	--
Methyl iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	--	--	--	--	--	--	--	--	F	1.0 E-5	4.1 E-6	3.4 E-6	--	--	--	--
Methyl n-butyl ketone	F	1.1 E-5	4.6 E-6	3.8 E-6	--	--	--	--	F	2.0 E-5	7.9 E-6	6.6 E-6	F	1.0 E-5	4.1 E-6	3.4 E-6
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	F	1.8 E-5	7.2 E-6	6.0 E-6	F	7.8 E-6	3.1 E-6	2.6 E-6	F	1.5 E-5	6.0 E-6	5.0 E-6	F	1.3 E-5	5.3 E-6	4.4 E-6
n-Propyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (monomer)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethylene	S	2.8 E-6	1.1 E-6	9.4 E-7	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	F	7.8 E-6	3.1 E-6	2.6 E-6	--	--	--	--	F	1.2 E-5	4.8 E-6	4.0 E-6	F	7.8 E-6	3.1 E-6	2.6 E-6
trans-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tribromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	F	8.4 E-6	3.4 E-6	2.8 E-6	--	--	--	--	--	--	--	--	F	9.0 E-6	3.6 E-6	3.0 E-6
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

All units in mg/m^3.

Method represents the surface flux measurement used in the risk calculations for that particular chemical/location: S = SIM; F = Full Scan.

See Appendix H for all indoor and outdoor air concentration calculations from surface flux measurement data. See Table 14 for outdoor air exposure point concentrations for non-volatile COPCs in soil.

Exposure point concentrations for surface flux data are based on a sample by sample basis. Averaging of the data was not conducted. Therefore only those chemicals detected in a particular sample were included in the risk estimates. A "--" is presented for those chemical not detected and not included in the risk estimates for each sample location. The exposure point concentration is the maximum of the full scan or SIM analysis results (when both had detected values, otherwise the detected value from one or the other is used). Thus, summary statistics are not presented in this table (see Table 6 for the surface flux data summary).

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 3 of 12)

	MC1-J04				MC1-J05				MC1-J07				MC1-J08			
Chemical	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
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-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	F	4.6 E-5	1.8 E-5	1.5 E-5	F	4.3 E-5	1.7 E-5	1.4 E-5
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	F	1.3 E-5	5.0 E-6	4.2 E-6	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	S	7.2 E-7	2.9 E-7	2.4 E-7	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Phenylbutane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	F	1.3 E-4	5.0 E-5	4.2 E-5	F	1.0 E-4	4.1 E-5	3.4 E-5	F	1.6 E-4	6.2 E-5	5.2 E-5	F	1.5 E-4	6.0 E-5	5.0 E-5
Acetonitrile	--	--	--	--	--	--	--	--	--	--	--	--	F	2.3 E-4	9.4 E-5	7.8 E-5
Benzene	S	3.6 E-6	1.4 E-6	1.2 E-6	--	--	--	--	F	9.6 E-6	3.8 E-6	3.2 E-6	--	--	--	--
Benzyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	--	--	--	--	F	1.6 E-4	6.5 E-5	5.4 E-5	--	--	--	--	F	5.9 E-5	2.4 E-5	2.0 E-5
Carbon tetrachloride	S	7.8 E-6	3.1 E-6	2.6 E-6	S	8.4 E-6	3.4 E-6	2.8 E-6	S	2.5 E-6	9.8 E-7	8.2 E-7	S	8.4 E-6	3.4 E-6	2.8 E-6
Freon 11	F	1.1 E-5	4.6 E-6	3.8 E-6	F	1.9 E-5	7.7 E-6	6.4 E-6	--	--	--	--	--	--	--	--
Freon 12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	F	3.2 E-5	1.3 E-5	1.1 E-5	F	1.7 E-5	7.0 E-6	5.8 E-6	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorodibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	S	2.9 E-6	1.2 E-6	9.8 E-7	F	1.3 E-5	5.3 E-6	4.4 E-6	F	2.2 E-5	8.6 E-6	7.2 E-6	S	2.2 E-6	8.9 E-7	7.4 E-7
Chloromethane	F	1.7 E-5	7.0 E-6	5.8 E-6	F	1.8 E-5	7.2 E-6	6.0 E-6	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cymene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane	S	2.0 E-6	7.9 E-7	6.6 E-7	S	1.7 E-6	6.7 E-7	5.6 E-7	S	7.2 E-7	2.9 E-7	2.4 E-7	S	1.4 E-6	5.8 E-7	4.8 E-7
Ethanol	F	1.3 E-5	5.0 E-6	4.2 E-6	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	MC1-J04				MC1-J05				MC1-J07				MC1-J08			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m & p-Xylene	--	--	--	--	--	--	--	--	F	2.0 E-5	7.9 E-6	6.6 E-6	--	--	--	--
Methyl ethyl ketone	F	7.8 E-5	3.1 E-5	2.6 E-5	--	--	--	--	--	--	--	--	--	--	--	--
Methyl iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl n-butyl ketone	F	9.6 E-6	3.8 E-6	3.2 E-6	--	--	--	--	F	8.4 E-6	3.4 E-6	2.8 E-6	F	1.1 E-5	4.6 E-6	3.8 E-6
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	F	1.3 E-5	5.3 E-6	4.4 E-6	F	9.6 E-6	3.8 E-6	3.2 E-6	F	2.0 E-5	7.9 E-6	6.6 E-6	F	1.4 E-5	5.8 E-6	4.8 E-6
n-Propyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (monomer)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethylene	S	1.3 E-6	5.0 E-7	4.2 E-7	--	--	--	--	S	1.1 E-6	4.3 E-7	3.6 E-7	S	1.1 E-6	4.3 E-7	3.6 E-7
Toluene	F	1.2 E-5	4.8 E-6	4.0 E-6	F	7.8 E-6	3.1 E-6	2.6 E-6	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tribromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethylene	--	--	--	--	S	7.8 E-6	3.1 E-6	2.6 E-6	--	--	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	F	2.0 E-5	8.2 E-6	6.8 E-6	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

All units in mg/m^3.

Method represents the surface flux measurement used in the risk calculations for that particular chemical/location: S = SIM; F = Full Scan.

See Appendix H for all indoor and outdoor air concentration calculations from surface flux measurement data. See Table 14 for outdoor air exposure point concentrations for non-volatile COPCs in soil.

Exposure point concentrations for surface flux data are based on a sample by sample basis. Averaging of the data was not conducted. Therefore only those chemicals detected in a particular sample were included in the risk estimates. A "--" is presented for those chemical not detected and not included in the risk estimates for each sample location. The exposure point concentration is the maximum of the full scan or SIM analysis results (when both had detected values, otherwise the detected value from one or the other is used). Thus, summary statistics are not presented in this table (see Table 6 for the surface flux data summary).

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	MC1-J09				MC1-J10				MC1-J10R				MC1-J11			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
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-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	F	3.2 E-5	1.3 E-5	1.1 E-5	F	7.2 E-5	2.9 E-5	2.4 E-5
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	S	7.2 E-7	2.9 E-7	2.4 E-7	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	--	--	--	--	--	--	--	--	F	3.5 E-5	1.4 E-5	1.2 E-5	--	--	--	--
2-Phenylbutane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	F	4.2 E-4	1.7 E-4	1.4 E-4	F	5.0 E-4	2.0 E-4	1.7 E-4	F	2.5 E-4	1.0 E-4	8.4 E-5	F	2.9 E-4	1.2 E-4	9.6 E-5
Acetonitrile	F	1.0 E-4	4.1 E-5	3.4 E-5	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	F	6.6 E-6	2.6 E-6	2.2 E-6	--	--	--	--	--	--	--	--	F	9.6 E-6	3.8 E-6	3.2 E-6
Benzyl chloride	--	--	--	--	--	--	--	--	F	1.4 E-5	5.8 E-6	4.8 E-6	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	F	1.8 E-5	7.2 E-6	6.0 E-6	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	F	3.4 E-5	1.4 E-5	1.1 E-5	--	--	--	--	--	--	--	--	F	2.6 E-5	1.1 E-5	8.8 E-6
Carbon tetrachloride	S	9.0 E-6	3.6 E-6	3.0 E-6	S	3.2 E-6	1.3 E-6	1.1 E-6	S	2.9 E-6	1.2 E-6	9.6 E-7	S	3.2 E-6	1.3 E-6	1.1 E-6
Freon 11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorodibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	S	4.9 E-5	1.9 E-5	1.6 E-5	S	2.5 E-6	9.8 E-7	8.2 E-7	S	5.3 E-6	2.1 E-6	1.8 E-6	S	1.3 E-6	5.3 E-7	4.4 E-7
Chloromethane	F	5.9 E-5	2.4 E-5	2.0 E-5	F	1.1 E-5	4.6 E-6	3.8 E-6	F	1.3 E-5	5.3 E-6	4.4 E-6	--	--	--	--
cis-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cymene	F	1.3 E-5	5.0 E-6	4.2 E-6	F	1.1 E-5	4.6 E-6	3.8 E-6	F	4.4 E-5	1.8 E-5	1.5 E-5	F	2.1 E-4	8.4 E-5	7.0 E-5
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane	--	--	--	--	S	9.0 E-7	3.6 E-7	3.0 E-7	S	1.0 E-6	4.1 E-7	3.4 E-7	--	--	--	--
Ethanol	F	4.0 E-5	1.6 E-5	1.3 E-5	F	2.7 E-5	1.1 E-5	9.0 E-6	F	6.6 E-5	2.6 E-5	2.2 E-5	--	--	--	--

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

	MC1-J09				MC1-J10				MC1-J10R				MC1-J11			
Chemical	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m & p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl ethyl ketone	--	--	--	--	F	1.5 E-5	6.0 E-6	5.0 E-6	--	--	--	--	--	--	--	--
Methyl iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	F	1.0 E-5	4.1 E-6	3.4 E-6	F	7.8 E-6	3.1 E-6	2.6 E-6	F	9.6 E-6	3.8 E-6	3.2 E-6	F	7.8 E-6	3.1 E-6	2.6 E-6
Methyl n-butyl ketone	F	1.6 E-5	6.5 E-6	5.4 E-6	F	1.2 E-5	4.8 E-6	4.0 E-6	F	2.8 E-5	1.1 E-5	9.2 E-6	F	2.2 E-5	8.6 E-6	7.2 E-6
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	F	1.0 E-5	4.1 E-6	3.4 E-6	F	1.1 E-5	4.6 E-6	3.8 E-6	F	1.5 E-5	6.0 E-6	5.0 E-6	F	1.6 E-5	6.5 E-6	5.4 E-6
n-Propyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (monomer)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethylene	S	1.4 E-6	5.5 E-7	4.6 E-7	S	1.4 E-6	5.5 E-7	4.6 E-7	--	--	--	--	S	1.3 E-6	5.0 E-7	4.2 E-7
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tribromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	S	1.9 E-6	7.4 E-7	6.2 E-7
Vinyl acetate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

All units in mg/m^3.

Method represents the surface flux measurement used in the risk calculations for that particular chemical/location: S = SIM; F = Full Scan.

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TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	MC1-J12				MC1-J13				MC1-J14				MC1-J15			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
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-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	F	4.3 E-5	1.7 E-5	1.4 E-5
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	S	3.5 E-6	1.4 E-6	1.2 E-6	S	6.6 E-7	2.6 E-7	2.2 E-7	S	6.6 E-7	2.6 E-7	2.2 E-7	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	F	1.1 E-5	4.6 E-6	3.8 E-6	--	--	--	--	F	1.0 E-5	4.1 E-6	3.4 E-6	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	F	2.5 E-5	1.0 E-5	8.4 E-6
1,4-Dioxane	F	1.0 E-4	4.1 E-5	3.4 E-5	--	--	--	--	--	--	--	--	F	1.7 E-5	6.7 E-6	5.6 E-6
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	--	--	--	--	--	--	--	--	--	--	--	--	F	5.3 E-5	2.1 E-5	1.8 E-5
2-Phenylbutane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	F	3.3 E-4	1.3 E-4	1.1 E-4	F	2.0 E-4	8.2 E-5	6.8 E-5	--	--	--	--	F	2.2 E-4	8.9 E-5	7.4 E-5
Acetonitrile	F	1.7 E-4	7.0 E-5	5.8 E-5	F	3.2 E-5	1.3 E-5	1.1 E-5	--	--	--	--	--	--	--	--
Benzene	--	--	--	--	S	3.6 E-6	1.4 E-6	1.2 E-6	F	8.4 E-6	3.4 E-6	2.8 E-6	--	--	--	--
Benzyl chloride	--	--	--	--	--	--	--	--	S	9.6 E-7	3.8 E-7	3.2 E-7	S	8.4 E-7	3.4 E-7	2.8 E-7
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	F	1.8 E-5	7.2 E-6	6.0 E-6	F	1.7 E-5	7.0 E-6	5.8 E-6	--	--	--	--	F	1.1 E-5	4.6 E-6	3.8 E-6
Carbon tetrachloride	S	7.2 E-5	2.9 E-5	2.4 E-5	S	4.7 E-6	1.9 E-6	1.6 E-6	S	4.2 E-6	1.7 E-6	1.4 E-6	S	2.0 E-6	8.2 E-7	6.8 E-7
Freon 11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	F	1.7 E-5	7.0 E-6	5.8 E-6	--	--	--	--	--	--	--	--	F	1.9 E-5	7.7 E-6	6.4 E-6
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorodibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	F	4.4 E-5	1.8 E-5	1.5 E-5	S	1.8 E-6	7.2 E-7	6.0 E-7	S	9.0 E-6	3.6 E-6	3.0 E-6	S	4.9 E-6	2.0 E-6	1.6 E-6
Chloromethane	F	5.0 E-5	2.0 E-5	1.7 E-5	F	1.0 E-5	4.1 E-6	3.4 E-6	F	7.2 E-6	2.9 E-6	2.4 E-6	F	1.1 E-5	4.3 E-6	3.6 E-6
cis-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cymene	--	--	--	--	--	--	--	--	--	--	--	--	F	1.6 E-5	6.5 E-6	5.4 E-6
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane	F	1.3 E-5	5.0 E-6	4.2 E-6	S	9.6 E-7	3.8 E-7	3.2 E-7	--	--	--	--	S	9.0 E-7	3.6 E-7	3.0 E-7
Ethanol	F	5.9 E-5	2.4 E-5	2.0 E-5	F	2.9 E-5	1.2 E-5	9.6 E-6	--	--	--	--	F	6.6 E-5	2.6 E-5	2.2 E-5

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 8 of 12)

Chemical	MC1-J12				MC1-J13				MC1-J14				MC1-J15			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
Ethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	F	1.1 E-5	4.6 E-6	3.8 E-6	--	--	--	--	F	1.0 E-5	4.1 E-6	3.4 E-6	--	--	--	--
m & p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl ethyl ketone	--	--	--	--	--	--	--	--	F	1.6 E-5	6.5 E-6	5.4 E-6	F	2.7 E-5	1.1 E-5	9.0 E-6
Methyl iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	--	--	--	--	--	--	--	--	--	--	--	--	F	1.8 E-5	7.2 E-6	6.0 E-6
Methyl n-butyl ketone	F	8.4 E-6	3.4 E-6	2.8 E-6	--	--	--	--	--	--	--	--	F	5.1 E-5	2.0 E-5	1.7 E-5
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	F	1.2 E-5	4.8 E-6	4.0 E-6	F	9.6 E-6	3.8 E-6	3.2 E-6	F	1.0 E-5	4.1 E-6	3.4 E-6	F	1.3 E-5	5.3 E-6	4.4 E-6
n-Propyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene (monomer)	--	--	--	--	--	--	--	--	--	--	--	--	F	1.1 E-5	4.3 E-6	3.6 E-6
tert-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethylene	--	--	--	--	--	--	--	--	S	1.9 E-6	7.4 E-7	6.2 E-7	--	--	--	--
Toluene	F	1.0 E-5	4.1 E-6	3.4 E-6	--	--	--	--	F	1.3 E-5	5.3 E-6	4.4 E-6	F	1.2 E-5	4.8 E-6	4.0 E-6
trans-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tribromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl acetate	F	8.4 E-6	3.4 E-6	2.8 E-6	F	8.4 E-6	3.4 E-6	2.8 E-6	--	--	--	--	--	--	--	--
Vinyl chloride	S	4.1 E-7	1.7 E-7	1.4 E-7	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

All units in mg/m^3.

Method represents the surface flux measurement used in the risk calculations for that particular chemical/location: S = SIM; F = Full Scan.

See Appendix H for all indoor and outdoor air concentration calculations from surface flux measurement data. See Table 14 for outdoor air exposure point concentrations for non-volatile COPCs in soil.

Exposure point concentrations for surface flux data are based on a sample by sample basis. Averaging of the data was not conducted. Therefore only those chemicals detected in a particular sample were included in the risk estimates. A "--" is presented for those chemical not detected and not included in the risk estimates for each sample location. The exposure point concentration is the maximum of the full scan or SIM analysis results (when both had detected values, otherwise the detected value from one or the other is used). Thus, summary statistics are not presented in this table (see Table 6 for the surface flux data summary).

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

	MC1-J15R				MC1-J16				MC1-J17				MC1-J18			
Chemical	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
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-Trichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,4-Trimethylbenzene	--	--	--	--	F	1.6 E-5	6.2 E-6	5.2 E-6	--	--	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--	F	1.9 E-5	7.7 E-6	6.4 E-6	--	--	--	--
1,2-Dichloroethane	S	1.0 E-6	4.1 E-7	3.4 E-7	--	--	--	--	S	2.2 E-6	8.9 E-7	7.4 E-7	S	8.4 E-7	3.4 E-7	2.8 E-7
1,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	S	1.5 E-6	6.0 E-7	5.0 E-7	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dioxane	F	5.0 E-5	2.0 E-5	1.7 E-5	--	--	--	--	--	--	--	--	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Phenylbutane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetone	F	1.3 E-4	5.0 E-5	4.2 E-5	F	4.2 E-4	1.7 E-4	1.4 E-4	F	4.2 E-4	1.7 E-4	1.4 E-4	F	2.1 E-4	8.4 E-5	7.0 E-5
Acetonitrile	--	--	--	--	F	3.2 E-4	1.3 E-4	1.1 E-4	F	9.6 E-5	3.8 E-5	3.2 E-5	--	--	--	--
Benzene	--	--	--	--	F	1.4 E-5	5.5 E-6	4.6 E-6	F	2.5 E-5	9.8 E-6	8.2 E-6	F	6.6 E-6	2.6 E-6	2.2 E-6
Benzyl chloride	S	1.3 E-6	5.3 E-7	4.4 E-7	S	1.4 E-6	5.8 E-7	4.8 E-7	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	F	1.6 E-5	6.5 E-6	5.4 E-6	--	--	--	--	--	--	--	--	F	7.8 E-6	3.1 E-6	2.6 E-6
Carbon tetrachloride	S	1.9 E-6	7.4 E-7	6.2 E-7	S	2.3 E-6	9.4 E-7	7.8 E-7	S	2.3 E-6	9.4 E-7	7.8 E-7	S	7.8 E-6	3.1 E-6	2.6 E-6
Freon 11	--	--	--	--	--	--	--	--	--	--	--	--	F	1.4 E-5	5.8 E-6	4.8 E-6
Freon 12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Freon 113	F	1.9 E-5	7.7 E-6	6.4 E-6	F	3.0 E-5	1.2 E-5	1.0 E-5	--	--	--	--	F	1.9 E-5	7.7 E-6	6.4 E-6
Chlorobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chlorobromomethane	--	--	--	--	--	--	--	--	--	--	--	--	F	1.1 E-5	4.3 E-6	3.6 E-6
Chlorodibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--	F	1.7 E-5	6.7 E-6	5.6 E-6	--	--	--	--
Chloroform	S	9.0 E-6	3.6 E-6	3.0 E-6	S	3.2 E-6	1.3 E-6	1.1 E-6	S	7.8 E-6	3.1 E-6	2.6 E-6	F	7.8 E-5	3.1 E-5	2.6 E-5
Chloromethane	F	8.4 E-6	3.4 E-6	2.8 E-6	F	3.1 E-5	1.2 E-5	1.0 E-5	F	5.6 E-5	2.3 E-5	1.9 E-5	F	2.0 E-5	8.2 E-6	6.8 E-6
cis-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cymene	--	--	--	--	--	--	--	--	F	1.1 E-5	4.6 E-6	3.8 E-6	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichloromethane	--	--	--	--	--	--	--	--	S	1.4 E-6	5.8 E-7	4.8 E-7	F	1.6 E-5	6.5 E-6	5.4 E-6
Ethanol	--	--	--	--	--	--	--	--	F	5.0 E-5	2.0 E-5	1.7 E-5	F	1.7 E-5	6.7 E-6	5.6 E-6

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	MC1-J15R				MC1-J16				MC1-J17				MC1-J18			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
Ethylbenzene	--	--	--	--	--	--	--	--	F	2.9 E-5	1.2 E-5	9.6 E-6	--	--	--	--
Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m & p-Xylene	--	--	--	--	F	3.9 E-5	1.6 E-5	1.3 E-5	F	7.8 E-5	3.1 E-5	2.6 E-5	F	2.0 E-5	7.9 E-6	6.6 E-6
Methyl ethyl ketone	--	--	--	--	F	8.4 E-6	3.4 E-6	2.8 E-6	--	--	--	--	F	4.9 E-5	2.0 E-5	1.6 E-5
Methyl iodide	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl isobutyl ketone	--	--	--	--	F	1.3 E-5	5.3 E-6	4.4 E-6	--	--	--	--	F	1.1 E-5	4.6 E-6	3.8 E-6
Methyl n-butyl ketone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	F	1.5 E-5	6.0 E-6	5.0 E-6	F	4.1 E-5	1.6 E-5	1.4 E-5	F	1.1 E-5	4.6 E-6	3.8 E-6	F	1.9 E-5	7.7 E-6	6.4 E-6
n-Propyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	F	1.6 E-5	6.5 E-6	5.4 E-6	F	3.7 E-5	1.5 E-5	1.2 E-5	--	--	--	--
Styrene (monomer)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
tert-Butyl benzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tetrachloroethylene	--	--	--	--	S	2.5 E-6	1.0 E-6	8.4 E-7	S	6.6 E-6	2.6 E-6	2.2 E-6	S	2.0 E-6	8.2 E-7	6.8 E-7
Toluene	F	1.3 E-5	5.3 E-6	4.4 E-6	F	1.7 E-5	7.0 E-6	5.8 E-6	--	--	--	--	F	5.3 E-5	2.1 E-5	1.8 E-5
trans-1,2-Dichloroethylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tribromomethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethylene	--	--	--	--	--	--	--	--	S	1.5 E-6	6.0 E-7	5.0 E-7	--	--	--	--
Vinyl acetate	F	1.2 E-5	4.8 E-6	4.0 E-6	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
All units in mg/m^3.
Method represents the surface flux measurement used in the risk calculations for that particular chemical/location: S = SIM; F = Full Scan.
See Appendix H for all indoor and outdoor air concentration calculations from surface flux measurement data. See Table 14 for outdoor air exposure point concentrations for non-volatile COPCs in soil.
Exposure point concentrations for surface flux data are based on a sample by sample basis. Averaging of the data was not conducted. Therefore only those chemicals detected in a particular sample were included in the risk estimates. A "--" is presented for those chemical not detected and not included in the risk estimates for each sample location. The exposure point concentration is the maximum of the full scan or SIM analysis results (when both had detected values, otherwise the detected value from one or the other is used). Thus, summary statistics are not presented in this table (see Table 6 for the surface flux data summary).

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	MC1-J19				MC1-J20			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
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-Trichloropropane	--	--	--	--	--	--	--	--
1,2,4-Trichlorobenzene	F	2.9 E-5	1.2 E-5	9.6 E-6	F	5.3 E-5	2.1 E-5	1.8 E-5
1,2,4-Trimethylbenzene	F	2.7 E-5	1.1 E-5	9.0 E-6	--	--	--	--
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--
1,2-Dichloroethane	--	--	--	--	--	--	--	--
1,2-Dichloropropane	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	--	--	--	--	F	3.3 E-5	1.3 E-5	1.1 E-5
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--
1,3-Dichloropropane	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	--	--	--	--	--	--
1,4-Dioxane	F	1.0 E-5	4.1 E-6	3.4 E-6	--	--	--	--
2,2-Dichloropropane	--	--	--	--	--	--	--	--
2-Methyl-1-propanol	--	--	--	--	--	--	--	--
2-Phenylbutane	--	--	--	--	--	--	--	--
Acetone	F	9.6 E-4	3.8 E-4	3.2 E-4	F	1.3 E-4	5.3 E-5	4.4 E-5
Acetonitrile	F	1.0 E-4	4.1 E-5	3.4 E-5	F	4.1 E-5	1.6 E-5	1.4 E-5
Benzene	--	--	--	--	--	--	--	--
Benzyl chloride	--	--	--	--	--	--	--	--
Bromodichloromethane	--	--	--	--	--	--	--	--
Bromomethane	--	--	--	--	F	6.6 E-5	2.6 E-5	2.2 E-5
Carbon disulfide	--	--	--	--	--	--	--	--
Carbon tetrachloride	S	3.8 E-6	1.5 E-6	1.3 E-6	S	1.7 E-6	7.0 E-7	5.8 E-7
Freon 11	--	--	--	--	--	--	--	--
Freon 12	--	--	--	--	--	--	--	--
Freon 113	F	1.6 E-5	6.5 E-6	5.4 E-6	--	--	--	--
Chlorobenzene	--	--	--	--	--	--	--	--
Chlorobromomethane	--	--	--	--	--	--	--	--
Chlorodibromomethane	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	--	--	--
Chloroform	F	1.1 E-5	4.6 E-6	3.8 E-6	F	3.5 E-5	1.4 E-5	1.2 E-5
Chloromethane	F	2.3 E-5	9.1 E-6	7.6 E-6	F	2.6 E-5	1.0 E-5	8.6 E-6
cis-1,2-Dichloroethylene	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropylene	--	--	--	--	--	--	--	--
Cymene	--	--	--	--	--	--	--	--
Dibromomethane	--	--	--	--	--	--	--	--
Dichloromethane	S	9.0 E-7	3.6 E-7	3.0 E-7	--	--	--	--
Ethanol	F	3.7 E-5	1.5 E-5	1.2 E-5	--	--	--	--

TABLE 11
EXPOSURE POINT CONCENTRATIONS IN INDOOR AND OUTDOOR AIR FROM SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	MC1-J19				MC1-J20			
	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air	Method	Residential Indoor Air	Commercial Indoor Air	Outdoor Air
Ethylbenzene	--	--	--	--	--	--	--	--
Hexachloro-1,3-butadiene	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	F	3.3 E-5	1.3 E-5	1.1 E-5
m & p-Xylene	--	--	--	--	--	--	--	--
Methyl ethyl ketone	--	--	--	--	--	--	--	--
Methyl iodide	--	--	--	--	F	1.0 E-4	4.1 E-5	3.4 E-5
Methyl isobutyl ketone	F	1.6 E-5	6.5 E-6	5.4 E-6	--	--	--	--
Methyl n-butyl ketone	F	2.0 E-5	7.9 E-6	6.6 E-6	F	7.8 E-6	3.1 E-6	2.6 E-6
Methyl tert-butyl ether	--	--	--	--	--	--	--	--
Naphthalene	--	--	--	--	--	--	--	--
n-Butyl benzene	--	--	--	--	--	--	--	--
n-Heptane	F	1.5 E-5	6.0 E-6	5.0 E-6	F	8.4 E-6	3.4 E-6	2.8 E-6
n-Propyl benzene	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	F	1.1 E-5	4.3 E-6	3.6 E-6
Styrene (monomer)	--	--	--	--	--	--	--	--
tert-Butyl benzene	--	--	--	--	--	--	--	--
Tetrachloroethylene	--	--	--	--	--	--	--	--
Toluene	F	8.4 E-6	3.4 E-6	2.8 E-6	F	8.4 E-6	3.4 E-6	2.8 E-6
trans-1,2-Dichloroethylene	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropylene	--	--	--	--	--	--	--	--
Tribromomethane	--	--	--	--	--	--	--	--
Trichloroethylene	--	--	--	--	--	--	--	--
Vinyl acetate	--	--	--	--	--	--	--	--
Vinyl chloride	--	--	--	--	--	--	--	--

Notes:

All units in mg/m^3.

Method represents the surface flux measurement used in the risk calculations for that particular chemical/location: S = SIM; F = Full Scan.

See Appendix H for all indoor and outdoor air concentration calculations from surface flux measurement data. See Table 14 for outdoor air exposure point concentrations for non-volatile COPCs in soil.

Exposure point concentrations for surface flux data are based on a sample by sample basis. Averaging of the data was not conducted. Therefore only those chemicals detected in a particular sample were included in the risk estimates. A "--" is presented for those chemical not detected and not included in the risk estimates for each sample location. The exposure point concentration is the maximum of the full scan or SIM analysis results (when both had detected values, otherwise the detected value from one or the other is used). Thus, summary statistics are not presented in this table (see Table 6 for the surface flux data summary).

TABLE 12
PARTICULATE EMISSION FACTOR (PEF) FOR ON-SITE RESIDENTIAL SCENARIO
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Parameter	Abbrev.	Units	Value
Wind Erosion and Construction Activities			
Fraction of vegetative cover(1)	V	--	0.5
Mean annual wind speed(2)	U_m	m/s	4.1
Equivalent threshold value of wind speed(1)	U_t	m/s	11.32
Function dependent on U/U_t(1)	F(x)	--	0.194
Air Dispersion Factor for Area Source(4)	**Q/C_{wind}**	**/m²-sec per kg/m**	**39.57**
Constant A(1)	A	--	13.3093
Constant B(1)	B	--	19.8387
Constant C(1)	C	--	230.1652
Areal Extent of site surface contamination(3)	A_{surf}	acres	54.74
Residential PEF(5)	**$PEF_{Onsite\ Resident}$**	**m^3/kg**	**8.59E+08**
Total outdoor ambient air dust concentration(6)	**$D_{Onsite\ Resident}$**	**kg/m^3**	**1.16E-09**

(1) Assumed value for the site based upon USEPA (2002b).
(2) Based on long-term weather data for the area of interest.
(3) Site area.
(4) From USEPA 2002b - $Q/C_{sa} = A \times \exp[(\ln(A_{surf}) - B)^2/C]$.
$\{[2.6 \times (s/12)^{0.8} \times (W/3)^{0.4}/(M/0.2)^{0.3}] \times [(365-p)/365] \times 281.9 \times \sum VKT_{road}\}$.
(5) From USEPA 2002b - $PEF_{Onsite\ Resident} = Q/C_{wind} * (3600/(0.036*(1-V)*((U_m/U_t)^3)*F(x)))$
(6) $D_{Onsite\ Resident} = 1/PEF_{Onsite\ Resident}$

TABLE 13
DUST MODEL AND PEF FOR CONSTRUCTION WORKER SCENARIO
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter	Abbrev.	Units	Value
Wind Erosion and Construction Activities			
Fugitive dust from wind erosion[1]	M_{wind}	g	**6.4E+05**
Fraction of vegetative cover[2]	V	--	0.00
Mean annual wind speed[3]	U_m	m/s	4.10
Equivalent threshold value of wind speed[2]	U_t	m/s	11.32
Function dependent on U/U_t[2]	F(x)	--	0.194
Areal Extent of site surface contamination[4]	A_{surf}	m^2	221525
Exposure duration[5]	ED	year	1
Fugitive dust from excavation soil dumping[6]	M_{excav}	g	**7.0E+04**
In situ wet soil bulk density[7]	ρ_{soil}	Mg/m^3	1.83
Gravimetric Soil Moisture Content %[8]	M	%	4.30
Areal extent of site excavation[9]	A_{excav}	m^2	44305.0
Average depth of site excavation[2]	d_{excav}	m	1.00
Number of times soil is dumped[2]	N_A	--	2.00
Fugitive dust from dozing[10]	M_{doz}	g	**1.9E+04**
Soil silt content %[7]	s	%	6.90
Gravimetric Soil Moisture Content %[8]	M	%	4.30
Average dozing speed[2]	S_{doz}	km/hr	11.40
Sum dozing kilometers traveled[11]	VKT_{doz}	km	272.37
Fugitive dust from grading[12]	M_{grade}	g	**1.2E+05**
Average grading speed[2]	S_{grade}	km/hr	11.40
Sum grading kilometers traveled[12]	VKT_{grade}	km	272.37
Fugitive dust from tilling[13]	M_{till}	g	**3.1E+04**
Soil silt content %[7]	s	%	6.90
Areal extent of site tilling[9]	A_{till}	acre	10.95
Number of times soil is tilled[2]	N_A	--	2.00
Total Time Averaged PM_{10} Emission[14]	**J'_T**	g/m2-sec	**5.53E-07**
Duration of construction[2]	T	sec	7.20E+06
Subchronic Dispersion Factor for Area Source[15]	**Q/C_{sa}**	g/m^2-sec per kg/m	**6.49**
Constant A[2]	A	--	2.4538
Constant B[2]	B	--	17.5660
Constant C[2]	C	--	189.0426
Areal Extent of site surface contamination[4]	A_{surf}	acres	54.74
Dispersion correction factor[16]	**F_D**	--	**0.19**
Subchronic PEF for Construction Activities[17]	**PEF_{sc}**	**m^3/kg**	**6.24E+07**

TABLE 13
DUST MODEL AND PEF FOR CONSTRUCTION WORKER SCENARIO
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter	Abbrev.	Units	Value
Unpaved Road Traffic			
Length of road segment(18)	L_R	m	470.66
Width of road segment(2)	W_R	m	6.10
Surface area of contaminated road segment(19)	A_R	m^2	2869.17
Road surface silt content %(20)	s	%	6.90
Mean vehicle weight(2)	W	tons	8.00
Percent moisture in dry road surface(20)	M	%	3.60
Number of days/year with at least 0.01 inches of precipitation(3)	p	days	27.00
Number of vehicles for duration of construction	N_V	vehicles	30.00
Length of road traveled per day	L_D	m/day	470.66
Sum of fleet vehicle kilometers traveled during the exposure duration(21)	VKT_{road}	km	1835.59
Subchronic Dispersion Factor for road segment(22)	Q/C_{sr}	g/m²-sec per kg/m	13.49
Constant A(2)	A		12.9351
Constant B(2)	B		5.7383
Constant C(2)	C		71.7711
Subchronic PEF for Unpaved Road Traffic(23)	**PEF_{sc_road}**	**m^3/kg**	**2.98E+06**
Total construction related PEF(24)	**PEF_{sc_total}**	**m^3/kg**	**2.8E+06**
Total outdoor ambient air dust concentration(25)	**$D_{construct}$**	**kg/m^3**	**3.5E-07**

(1) From USEPA. (2002b) - $M_{wind} = 0.036 \times (1\text{-}V) \times (U_m/U_t)^3 \times F(x) \times A_{surf} \times ED \times 8760hr/yr$.
(2) Assumed value for the site based upon USEPA (2002b).
(3) Based on long-term weather data for the area of interest (n-line. http://www.wrcc.dri.edu/).
(4) Site area of 54.74 acres
(5) Construction worker ED
(6) From USEPA 2002b - $M_{excav} = 0.35 \times 0.0016 \times [(U_m/2.2)^{1.3}/(M/2)^{1.4}] \times \rho_{soil} \times A_{excav} \times d_{excav} \times N_A \times 10^3 g/kg$.
(7) Based on data from vicinity investigations.
(8) Average of site data from multiple investigations (see text).
(9) Assumed value of one fifth of the site based upon USEPA (2002b).
(10) From USEPA 2002b - $M_{doz} = 0.75 \times [(0.45 \times s^{1.5})/(M)^{1.4}] \times \sum VKT_{doz}/S_{doz} \times 10^3 g/kg$.
(11) From USEPA 2002b - $VKT_{doz} = [(A_{surf}^{0.5}/2.44m) \times A_{surf}^{0.5} \times 3]/1{,}000\ m/km$.
(12) From USEPA 2002b - $M_{grade} = 0.60 \times (0.0056 \times S^{2.0}) \times \sum VKT_{grade} \times 10^3 g/kg$.
(13) From USEPA 2002b - $M_{till} = 1.1 \times s^{0.6} \times A_{till} \times 4{,}047 m^2/acre \times 10^{-4} ha/m^2 \times 10^3 g/kg \times N_A$.
(14) From USEPA 2002b - $J'_T = (M_{wind} + M_{excav} + M_{doz} + M_{grade} + M_{till})/(A_{surf} \times T)$.
(15) From USEPA 2002b - $Q/C_{sa} = A \times \exp[(\ln(A_{surf}) - B)^2/C]$.
(16) From USEPA 2002b - $F_D = 0.1852 + (5.3537/t_c)+(-9.6318/t_c^2)$, $t_c = T/(3{,}600sec/hour)$.
(17) From USEPA 2002b - $PEF_{sc} = Q/C_{sa} \times (1/F_D) \times (1/J'_T)$.
(18) Assumed value of the square root of the site area, based upon USEPA (2002b).
(19) From USEPA 2002b - $A_R = L_R \times W_R * 0.092903$ m2/ft2
(20) Average of site data from multiple investigations (see text).
(21) From USEPA 2002b - VKT_{road} = 30 vehicles × L_R × [(52 wks/yr)/2] × (5 days/week) / (1000 m/km).
(22) From USEPA 2002b - $Q/C_{sr} = A \times \exp[(\ln(A_{surf}) - B)^2/C]$.
(23) From USEPA 2002b - $PEF_{sc\_road} = Q/C_{sr} \times (1/F_D) \times T \times A_R$ /
$\{[2.6 \times (s/12)^{0.8} \times (W/3)^{0.4}/(M/0.2)^{0.3}] \times [(365-p)/365] \times 281.9 \times \sum VKT_{road}\}$.
(24) $PEF_{sc\_total} = \{1/[(1/PEF_{sc})+(1/PEF_{sc\_road})]\}$.
(25) $D_{construct} = 1/PEF_{sc\_total}$.

TABLE 14
OUTDOOR AIR EXPOSURE POINT CONCENTRATIONS FROM SOIL
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Chemical	Soil Conc. (mg/kg)	Construction Worker Outdoor Air		Non-Construction Worker Outdoor Air	
		PEF/VF(1) (kg/m^3)	Air Conc.(2) (mg/m^3)	PEF/VF(3) (kg/m^3)	Air Conc.(2) (mg/m^3)
Aldehydes					
Acetaldehyde(4)	3.7 E-1	1.4 E-4	5.2 E-5	1.4 E-4	5.2 E-5
Formaldehyde(4)	1.8 E+0	2.0 E-5	3.7 E-5	2.0 E-5	3.7 E-5
Inorganics					
Ammonia	2.5 E+0	3.5 E-7	8.7 E-7	1.2 E-9	2.9 E-9
Antimony	5.8 E-1	3.5 E-7	2.1 E-7	1.2 E-9	6.8 E-10
Beryllium	7.2 E-1	3.5 E-7	2.5 E-7	1.2 E-9	8.4 E-10
Chromium (Total)	3.5 E+1	3.5 E-7	1.2 E-5	1.2 E-9	4.0 E-8
Chromium (VI)	1.2 E+0	3.5 E-7	4.2 E-7	1.2 E-9	1.4 E-9
Cobalt	7.7 E+0	3.5 E-7	2.7 E-6	1.2 E-9	9.0 E-9
Fluoride	1.7 E+0	3.5 E-7	6.0 E-7	1.2 E-9	2.0 E-9
Mercury	1.0 E-2	3.5 E-7	3.6 E-9	1.2 E-9	1.2 E-11
Molybdenum	1.1 E+0	3.5 E-7	3.8 E-7	1.2 E-9	1.3 E-9
Nickel	2.0 E+1	3.5 E-7	6.9 E-6	1.2 E-9	2.3 E-8
Nitrate (as N)	2.9 E+1	3.5 E-7	1.0 E-5	1.2 E-9	3.3 E-8
Perchlorate	7.2 E-1	3.5 E-7	2.5 E-7	1.2 E-9	8.4 E-10
Silver	1.4 E-1	3.5 E-7	4.8 E-8	1.2 E-9	1.6 E-10
Thallium	5.2 E-1	3.5 E-7	1.8 E-7	1.2 E-9	6.1 E-10
Tin	8.4 E-1	3.5 E-7	3.0 E-7	1.2 E-9	9.8 E-10
Tungsten	1.3 E+0	3.5 E-7	4.6 E-7	1.2 E-9	1.5 E-9
Vanadium	7.1 E+1	3.5 E-7	2.5 E-5	1.2 E-9	8.3 E-8
Zinc	6.1 E+1	3.5 E-7	2.2 E-5	1.2 E-9	7.2 E-8
Organochlorine Pesticides					
2,4-DDE	5.3 E-3	3.5 E-7	1.9 E-9	1.2 E-9	6.2 E-12
4,4-DDE	6.2 E-3	3.5 E-7	2.2 E-9	1.2 E-9	7.3 E-12
4,4-DDT	5.7 E-3	3.5 E-7	2.0 E-9	1.2 E-9	6.6 E-12
beta-BHC	6.2 E-4	3.5 E-7	2.2 E-10	1.2 E-9	7.2 E-13
Volatile Organic Compounds (4)					
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA
Acetone	1.9 E-2	NA	NA	NA	NA
Benzene	7.7 E-5	NA	NA	NA	NA
Dichloromethane	4.1 E-3	NA	NA	NA	NA

Notes:
(1) Construction worker PEF from Table 13; PEF was used for the soil VOCs with exception of the aldehydes.
(2) Soil concentration × PEF
(3) Default PEF from Closure Plan used.
(4) Surface flux data were used to estimate exposures to volatiles (see Table 11), however, aldehydes were not included on the surface flux analyte list. Therefore outdoor volatililization exposures for aldehydes were modeled using the VF.

TABLE 15
PLANT UPTAKE FACTORS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Chemical	Aboveground Plant[1] Uptake Factor mg/kg plant DW/mg/kg soil	Belowground Plant[1] Uptake Factor mg/kg plant DW/mg/kg soil	Reference
Inorganics			
Ammonia	NA	NA	Closure Plan
Antimony	3.2 E-2	3.0 E-2	USEPA 2005b
Beryllium	1.0 E-2	1.5 E-3	Baes *et al* . 1984
Chromium (Total)	4.9 E-3	4.5 E-3	USEPA 2005b
Chromium (VI)	4.9 E-3	4.5 E-3	USEPA 2005b
Cobalt	2.0 E-2	7.0 E-3	Baes *et al* . 1984
Fluoride	NA	NA	Closure Plan
Mercury	1.5 E-2	3.6 E-2	USEPA 2005b
Molybdenum	2.5 E-1	6.0 E-2	Baes *et al* . 1984
Nickel	NA	NA	Closure Plan
Nitrate (as N)	NA	NA	Closure Plan
Perchlorate	NA	NA	Closure Plan
Silver	1.4 E-1	1.0 E-1	USEPA 2005b
Thallium	8.6 E-4	4.0 E-4	Baes *et al* . 1984
Tin	3.0 E-2	6.0 E-3	Baes *et al* . 1984
Tungsten	4.5 E-2	1.0 E-2	Baes *et al* . 1984
Vanadium	5.5 E-3	3.0 E-3	Baes *et al* . 1984
Zinc	NA	NA	Closure Plan
Aldehydes			
Acetaldehyde	5.2 E+1	5.2 E-1	USEPA 2005b
Formaldehyde	2.4 E+1	4.3 E-1	USEPA 2005b
Organochlorine Pesticides			
2,4-DDE	9.4 E-5	7.4 E-4	USEPA 2005b
4,4-DDE	9.4 E-5	7.4 E-4	USEPA 2005b
4,4-DDT	1.2 E-4	9.0 E-4	USEPA 2005b
beta-BHC	2.4 E-1	3.6 E+0	USEPA 2005b
Volatile Organic Compounds			
1,2,4-Trimethylbenzene	4.4 E+0	3.8 E-3	USEPA 2005b
Acetone	5.3 E+1	8.6 E-1	USEPA 2005b
Benzene	2.3 E+0	3.8 E+0	USEPA 2005b
Dichloromethane	7.3 E+0	6.0 E-1	USEPA 2005b

(1) Calculations were performed as identified in the Closure Plan (BRC and ERM 2007) as shown in USEPA 2005 - Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities.

TABLE 16
RESIDENTIAL EXPOSURE FACTORS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter	Abbrev.	Value	Units	Reference
Dermal absorption fraction	ABS	---chemical-specific---		see text
Soil-plant bioconcentration factors	Br	---chemical-specific---		see text
Dermal adherence factor, adult	AF_a	0.07	mg/cm^2	Closure Plan
Dermal adherence factor, child	AF_c	0.2	mg/cm^2	Closure Plan
Averaging time, carcinogenic	AT_c	70	years	Closure Plan
Averaging time, carcinogenic (inhalation)	AT_c	613200	hours	Closure Plan
Averaging time, non-carcinogenic	AT_{nc}	6	years	Closure Plan
Averaging time, non-carcinogenic (inhalation)	AT_{nc}	52560	hours	Closure Plan
Adult body weight	BW_a	70	kg	Closure Plan
Child body weight	BW_c	15	kg	Closure Plan
Exposure frequency	EF_r	350	days/year	Closure Plan
Exposure duration - child	ED_{rc}	6	years	Closure Plan
Exposure duration - child (inhalation)	ED_{rc}	52560	hours	Closure Plan
Exposure duration - adult (for age-weighted)	ED_{ra}	24	years	Closure Plan
Exposure duration - adult (for age-weighted; inhalation)	ED_{ra}	210240	hours	Closure Plan
Exposure duration	EDr	30	years	Closure Plan
Exposure duration (inhalation)	EDr	262800	hours	Closure Plan
Exposure time - outdoors (inhalation only)	ET_o	2.0	hours/day	Closure Plan
Exposure time - indoors (inhalation only)	ET_i	16.7	hours/day	Closure Plan
Dilution factor for outdoor-to-indoor air	DF_i	0.4	unitless	Closure Plan
Available skin surface area, adult	SA_a	5,700	cm^2/day	Closure Plan
Available skin surface area, child	SA_c	2,800	cm^2/day	Closure Plan
Fruit/vegetable ingestion rate, aboveground, child	$CR_{ag,c}$	0.0179	kg DW/d	Closure Plan
Fruit/vegetable ingestion rate, belowground, child	$CR_{bg,c}$	0.0033	kg DW/d	Closure Plan
Fruit/vegetable ingestion rate, aboveground, adult	$CR_{ag,a}$	0.0609	kg DW/d	Closure Plan
Fruit/vegetable ingestion rate, belowground, adult	$CR_{bg,a}$	0.0098	kg DW/d	Closure Plan
Contaminated plant fraction from the site	CPF	0.25	--	Closure Plan
Adult soil ingestion rate	$IR_{s,a}$	100	mg/day	Closure Plan
Child soil ingestion rate	$IR_{s,c}$	200	mg/day	Closure Plan
Soil ingestion, non-cancer	--	1.28 E-5	day^{-1}	Calculated
Soil ingestion, cancer	--	1.57 E-6	day^{-1}	Calculated
Soil dermal contact, non-cancer	--	3.58 E-5	day^{-1}	Calculated
Soil dermal contact, cancer	--	4.94 E-6	day^{-1}	Calculated
Inhalation, soil-dust, outdoor, non-cancer	--	7.99 E-2	unitless	Calculated
Inhalation, soil-dust, outdoor, cancer	--	3.42 E-2	unitless	Calculated
Inhalation, soil-volatiles, outdoor, non-cancer	--	4.00 E-2	unitless	Calculated
Inhalation, soil-volatiles, outdoor, cancer	--	1.71 E-2	unitless	Calculated
Fruit/Vegetable ingestion, non-cancer - aboveground	--	2.86 E-4	day^{-1}	Calculated
Fruit/Vegetable ingestion, non-cancer - belowground	--	5.27 E-5	day^{-1}	Calculated
Fruit/Vegetable ingestion, cancer - aboveground	--	9.60 E-5	day^{-1}	Calculated
Fruit/Vegetable ingestion, cancer - belowground	--	1.60 E-5	day^{-1}	Calculated
Inhalation, soil-dust, indoor, non-cancer	--	2.67 E-1	unitless	Calculated
Inhalation, soil-dust, indoor, cancer	--	1.14 E-1	unitless	Calculated

TABLE 17
WORKER EXPOSURE FACTORS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter	Abbrev.	Value	Units	Reference
Dermal absorption fraction	ABS	---chemical-specific--		see text
Maintenance worker dermal adherence factor	AF_{mw}	0.2	mg/cm^2	Closure Plan
Commercial worker dermal adherence factor	AF_{cmw}	NA	mg/cm^2	Closure Plan
Construction worker dermal adherence factor	AF_{cw}	0.3	mg/cm^2	Closure Plan
Averaging time, carcinogenic	AT_c	70	years	Closure Plan
Averaging time, carcinogenic (inhalation)	AT_c	613200	hours	Closure Plan
Averaging time, non-carcinogenic, maintenance/commercial worker	AT_{nc}	25	years	Closure Plan
Averaging time, non-carcinogenic, maintenance/commercial worker (inhalation)	AT_{nc}	219000	hours	Closure Plan
Averaging time, non-carcinogenic, construction worker	$AT_{nc,c}$	1	years	Closure Plan
Averaging time, non-carcinogenic, construction worker (inhalation)	$AT_{nc,c}$	8760	hours	Closure Plan
Adult body weight	BW_a	70	kg	Closure Plan
Maintenance worker exposure frequency	EF_{mw}	225	days/year	Closure Plan
Commercial worker exposure frequency	EF_{cmw}	250	days/year	Closure Plan
Construction worker exposure frequency	EF_{cmw}	250	days/year	Closure Plan
Exposure duration, maintenance/commercial worker	ED	25	years	Closure Plan
Exposure duration, maintenance/commercial worker (inhalation)	ED	219000	hours	Closure Plan
Exposure duration, construction worker	ED	1	years	Closure Plan
Exposure duration, construction worker (inhalation)	ED	8760	hours	Closure Plan
Maintenance worker exposed surface area	SA_{mw}	3,300	cm^2/day	Closure Plan
Construction worker exposed surface area	SA_{mw}	3,300	cm^2/day	Closure Plan
Commercial worker exposed surface area	SA_{cmw}	NA	cm^2/day	Closure Plan
Maintenance worker soil ingestion rate	$IR_{s,mw}$	100	mg/day	Closure Plan
Commercial worker soil ingestion rate	$IR_{s,cmw}$	50	mg/day	Closure Plan
Construction worker soil ingestion rate	$IR_{s,cmw}$	330	mg/day	Closure Plan
Commercial worker exposure time, indoors	$ET_{cmw,i}$	8	based on 8 hr/d	Closure Plan
Commercial worker exposure time, outdoors	$ET_{cmw,o}$	0	indoor worker	Closure Plan
Maintenance worker exposure time, indoors	$ET_{mw,i}$	0	outdoor worker	Closure Plan
Maintenance worker exposure time, outdoors	$ET_{mw,o}$	8	based on 8 hr/d	Closure Plan
Soil ingestion, non-cancer, commercial worker	--	4.89 E-7	day^{-1}	Calculated
Soil ingestion, cancer, commercial worker	--	1.75 E-7	day^{-1}	Calculated
Soil ingestion, non-cancer, maintenance worker	--	8.81 E-7	day^{-1}	Calculated
Soil ingestion, cancer, maintenance worker	--	3.15 E-7	day^{-1}	Calculated
Soil dermal contact, non-cancer, maintenance worker	--	5.81 E-6	day^{-1}	Calculated
Soil dermal contact, cancer, maintenance worker	--	2.08 E-6	day^{-1}	Calculated
Inhalation, fugitive-dust, outdoor, non-cancer, maintenance worker	--	2.05 E-1	unitless	Calculated
Inhalation, fugitive-dust, outdoor, cancer, maintenance worker	--	7.34 E-2	unitless	Calculated
Soil ingestion, noncancer, construction worker	--	3.23 E-6	day^{-1}	Calculated
Soil ingestion, cancer, construction worker	--	4.61 E-8	day^{-1}	Calculated
Soil dermal contact, noncancer, construction worker	--	9.69 E-6	day^{-1}	Calculated
Soil dermal contact, cancer, construction worker	--	1.38 E-7	day^{-1}	Calculated
Inhalation, soil-dust, outdoor, noncancer, construction worker	--	2.28 E-1	unitless	Calculated
Inhalation, soil-dust, outdoor, cancer, construction worker	--	3.26 E-3	unitless	Calculated

Note: Exposure parameters for maintenance workers and commerical workers are based on outdoor and indoor commercial/industrial worker exposure factors, respectively, from USEPA, 2002b.

TABLE 18
TOXICITY CRITERIA FOR SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 2)

Compound	Cancer IUR 1/(μg/m³)		Non-Cancer RfC (mg/m³)	
1,1,1,2-Tetrachloroethane	7.4 E-6	I	--	
1,1,1-Trichloroethane	--		5.0 E+0	I
1,1,2,2-Tetrachloroethane	5.8 E-5	I	--	
1,1,2-Trichloroethane	1.6 E-5	I	--	
1,1-Dichloroethane	1.6 E-6	CA	--	
1,1-Dichloroethylene	--		2.0 E-1	I
1,1-Dichloropropene	--		--	
1,2,3-Trichloropropane	--		3.0 E-4	I
1,2,4-Trichlorobenzene	--		4.0 E-3	P
1,2,4-Trimethylbenzene	--		7.0 E-3	P
1,2-Dibromo-3-chloropropane	6.0 E-3	P	2.0 E-4	I
1,2-Dibromoethane	6.0 E-4	I	9.0 E-3	I
1,2-Dichlorobenzene	--		2.0 E-1	H
1,2-Dichloroethane	2.6 E-5	I	2.4 E+0	A
1,2-Dichloropropane	1.0 E-5	CA	4.0 E-3	I
1,3,5-Trimethylbenzene	--		6.0 E-3	P
1,3-Dichlorobenzene	--		2.0 E-1	N
1,3-Dichloropropane	--		4.0 E-3	N
1,4-Dichlorobenzene	1.1 E-5	CA	8.0 E-1	I
1,4-Dioxane	7.7 E-6	CA	3.6 E+0	A
2,2-Dichloropropane	--		--	
2-Methyl-1-propanol	--		--	
2-Phenylbutane	--		--	
Acetone	--		3.1 E+1	A
Acetonitrile	--		6.0 E-2	I
Benzene	7.8 E-6	I	3.0 E-2	I
Benzyl chloride	--		1.0 E-3	I
Bromodichloromethane	--		1.0 E+0	N
Bromomethane	--		5.0 E-3	I
Carbon disulfide	--		7.0 E-1	I
Carbon tetrachloride	1.5 E-5	I	1.9 E-1	A
Chlorobenzene	--		5.0 E-2	P
Chlorobromomethane	--		--	
Chlorodibromomethane	2.7 E-5	CA	--	
Chloroethane	--		1.0 E+1	I
Chloroform	2.3 E-5	I	9.8 E-2	A
Chloromethane	1.8 E-6	H	9.0 E-2	I
cis-1,2-Dichloroethylene	--		6.0 E-2	N
cis-1,3-Dichloropropylene	4.0 E-6	I	2.0 E-2	I
Cymene	--		4.0 E-1	N
Dibromomethane	--		4.0 E-3	N
Dichloromethane	4.7 E-7	I	1.1 E+0	A
Ethanol	--		1.0 E+2	CA
Ethylbenzene	2.5 E-6	CA	1.0 E+0	I
Freon 11	--		7.0 E-1	H
Freon 113	--		3.0 E+1	H
Freon 12	--		2.0 E-1	H
Hexachloro-1,3-butadiene	2.2 E-5	I	--	
Isopropylbenzene	--		4.0 E-1	I
m & p-Xylene	--		1.0 E-1	I
Methyl ethyl ketone	--		5.0 E+0	I
Methyl iodide	--		1.7 E-1	N
Methyl isobutyl ketone	--		3.0 E+0	I
Methyl n-butyl ketone	--		3.0 E-2	I
Methyl tert-butyl ether	2.6 E-7	CA	3.0 E+0	I

TABLE 18
TOXICITY CRITERIA FOR SURFACE FLUX
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 2)

Compound	Cancer IUR 1/(μg/m^3)		Non-Cancer RfC (mg/m^3)	
Naphthalene	3.4 E-5	CA	3.0 E-3	I
n-Butyl benzene	--		4.0 E-1	N
n-Heptane	--		7.0 E+0	T
n-Propyl benzene	--		4.0 E-1	N
o-Xylene	--		1.0 E-1	I
Styrene (monomer)	--		1.0 E+0	I
tert-Butyl benzene	--		4.0 E-1	N
Tetrachloroethylene	5.9 E-6	CA	2.7 E-1	A
Toluene	--		5.0 E+0	I
trans-1,2-Dichloroethylene	--		6.0 E-2	P
trans-1,3-Dichloropropylene	4.0 E-6	I	2.0 E-2	I
Tribromomethane	1.1 E-6	I	--	
Trichloroethylene	2.0 E-6	CA	--	
Vinyl acetate	--		2.0 E-1	I
Vinyl chloride	4.4 E-6	I	1.0 E-1	I

Key:
A = ATSDR
CA = Cal/EPA (from NDEP 2010a)
H = HEAST (USEPA 1997)
I = IRIS (USEPA 2010)
N = NDEP 2010a
P = USEPA EPA PPRTV (from NDEP 2010a)
T = TPHCWG (from NDEP 2010a)

TABLE 19
NON-CANCER TOXICITY CRITERIA FOR SOIL
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Chemical	Inhalation - Chronic		Inhalation - Subchronic		Oral[1] - Chronic		Oral[1] - Subchronic		Oral BIO	Dermal ABS[2]
	Value (mg/m^3)	Reference	Value (mg/m^3)	Reference	Value (mg/kg/day)	Reference	Value (mg/kg/day)	Reference		
Inorganics										
Ammonia	1.0 E-1	USEPA 2010	1.0 E-1	Chronic	NA		NA		1.0	0.01
Antimony	NA		NA		4.0 E-4	USEPA 2010	4.0 E-4	Chronic	1.0	0.01
Beryllium	2.0 E-5	USEPA 2010	2.0 E-5	Chronic	2.0 E-3	USEPA 2010	5.0 E-3	USEPA 1997	1.0	0.01
Chromium (Total)[3]	NA		NA		1.5 E+0	USEPA 2010	1.5 E+0	Chronic	1.0	0.01
Chromium (VI)	8.0 E-6	USEPA 2010	8.0 E-6	Chronic	3.0 E-3	USEPA 2010	3.0 E-3	Chronic	1.0	0.01
Cobalt	6.0 E-6	PPRTV	6.0 E-6	Chronic	3.0 E-4	PPRTV	3.0 E-4	Chronic	1.0	0.01
Fluoride	NA		NA		6.0 E-2	USEPA 2010	6.0 E-2	Chronic	1.0	0.01
Mercury	NA		NA		3.0 E-4	USEPA 2010	3.0 E-4	USEPA 2010	1.0	0.01
Molybdenum	NA		NA		5.0 E-3	USEPA 2010	5.0 E-3	Chronic	1.0	0.01
Nickel	9.0 E-5	ATSDR	9.0 E-5	Chronic	2.0 E-2	USEPA 2010	2.0 E-2	USEPA 1997	1.0	0.01
Nitrate (as N)	NA		NA		1.6 E+0	USEPA 2010	1.6 E+0	Chronic	1.0	0.01
Perchlorate	NA		NA		7.0 E-4	USEPA 2010	7.0 E-4	Chronic	1.0	0.01
Silver	NA		NA		5.0 E-3	USEPA 2010	5.0 E-3	Chronic	1.0	0.01
Thallium	NA		NA		7.0 E-5	USEPA 2010	7.0 E-5	Chronic	1.0	0.01
Tin	NA		NA		6.0 E-1	USEPA 1997	6.0 E-1	USEPA 1997	1.0	0.01
Tungsten	3.3 E-3	NDEP 2008	3.3 E-3	Chronic	7.5 E-3	NDEP 2008	7.5 E-3	Chronic	1.0	0.01
Vanadium	5.0 E-3	USEPA 2010	5.0 E-3	Chronic	5.0 E-3	USEPA 2010	5.0 E-3	Chronic	1.0	0.01
Zinc	NA		NA		3.0 E-1	USEPA 2010	3.0 E-1	Chronic	1.0	0.01
Organic Compounds										
1,2,4-Trimethylbenzene	7.0 E-3	PPRTV	7.0 E-3	Chronic	NA		NA		1.0	0.10
2,4-DDE	NA		NA		NA		NA		1.0	0.03
4,4-DDE	NA		NA		NA		NA		1.0	0.03
4,4-DDT	NA		NA		5.0 E-4	USEPA 2010	5.0 E-4	USEPA 1997	1.0	0.03
Acetone	3.1 E+1	ATSDR	3.1 E+1	Chronic	9.0 E-1	USEPA 2010	1.0 E+0	USEPA 1997	1.0	0.10
Acetaldehyde	9.0 E-3	USEPA 2010	9.0 E-3	Chronic	NA		NA		1.0	0.10
Benzene	3.0 E-2	USEPA 2010	3.0 E-2	Chronic	4.0 E-3	USEPA 2010	4.0 E-3	USEPA 2010	1.0	0.10
beta-BHC	NA		NA		NA		NA		1.0	0.04
Dichloromethane	1.1 E+0	ATSDR	3.0 E+0	USEPA 1997	6.0 E-2	USEPA 2010	6.0 E-2	USEPA 1997	1.0	0.10
Formaldehyde	9.8 E-3	ATSDR	9.8 E-3	Chronic	2.0 E-1	USEPA 2010	2.0 E-1	USEPA 1997	1.0	0.10

Notes
NA = Not applicable. Data is either not applicable for this chemical or not available.
BIO = bioavailability
ABS = dermal absorption efficiency
ATSDR = Agency of Toxic Substances and Disease Registry, as referenced in NDEPs BCL Tables (NDEP 2010a).
PPRTV = Provisional Peer Reviewed Toxicity Values, National Center for Environmental Assessment (USEPA), as referenced in NDEPs BCL Tables (NDEP 2010a).
(1) Cr(III), Cr(VI), mercury, nickel and vanadium required the adjustment of the oral toxicity criteria for the dermal soil exposure pathway (USEPA 2004e).
(2) Dermal absorption factors obtained from USEPA 2004e.
(3) Because Cr (VI) is analyzed for separately total chromium is assessed using Cr(III) toxicity criteria.

TABLE 20
CANCER TOXICITY CRITERIA FOR SOIL
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Chemical	Inhalation		Oral[1]		Oral BIO	Dermal ABS[2]
	Value $(\mu g/m^3)^{-1}$	Reference	Value $(mg/kg\text{-}day)^{-1}$	Reference		
Inorganics						
Ammonia	NA		NA		1.0	0.01
Antimony	NA		NA		1.0	0.01
Beryllium	2.4 E-3	USEPA 2010	NA		1.0	0.01
Chromium (Total)	NA		NA		1.0	0.01
Chromium (VI)	1.2 E-2	USEPA 2010	NA		1.0	0.01
Cobalt	9.0 E-3	PPRTV	NA		1.0	0.01
Fluoride	NA		NA		1.0	0.01
Mercury	NA		NA		1.0	0.01
Molybdenum	NA		NA		1.0	0.01
Nickel	NA		NA		1.0	0.01
Nitrate (as N)	NA		NA		1.0	0.01
Perchlorate	NA		NA		1.0	0.01
Silver	NA		NA		1.0	0.01
Thallium	NA		NA		1.0	0.01
Tin	NA		NA		1.0	0.01
Tungsten	NA		NA		1.0	0.01
Vanadium	NA		NA		1.0	0.01
Zinc	NA		NA		1.0	0.01
Organic Compounds						
1,2,4-Trimethylbenzene	NA		NA		1.0	0.10
2,4-DDE	9.7 E-5	OEHHA 2009	3.4 E-1	USEPA 2010	1.0	0.03
4,4-DDE	9.7 E-5	OEHHA 2009	3.4 E-1	USEPA 2010	1.0	0.03
4,4-DDT	9.7 E-5	OEHHA 2009	3.4 E-1	USEPA 2010	1.0	0.03
Acetone	NA		NA		1.0	0.10
Acetaldehyde	2.2 E-6	USEPA 2010	NA		1.0	0.10
Benzene	7.8 E-6	USEPA 2010	5.5 E-2	USEPA 2010	1.0	0.10
beta-BHC	5.3 E-4	USEPA 2010	1.8 E+0	USEPA 2010	1.0	0.04
Dichloromethane	4.7 E-7	USEPA 2010	7.5 E-3	USEPA 2010	1.0	0.10
Formaldehyde	1.3 E-5	USEPA 2010	NA		1.0	0.10

Notes
Values obtained from NDEP (2010a).
NA = Not applicable. Data is either not applicable for this chemical (*i.e.*, not carcinogenic) or not available.
BIO = bioavailability - NOTE: The basis for the arsenic oral bioavailability is presented in Closure Plan.
ABS = dermal absorption efficiency
(1) No COPCs required oral toxicity criteria adjustment for the dermal soil exposure pathway (USEPA 2004e).
(2) Dermal absorption factors obtained from USEPA 2004e.

TABLE 21
TARGET ORGANS FOR NON-CARCINOGENS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Oral/Dermal					
	Primary Target Organ	Reference	Secondary(1) Target Organ	Reference	Tertiary(1) Target Organ	Reference
Inorganics						
Ammonia	NA		NA		NA	
Antimony	Blood	USEPA 2010	Gastrointestinal	ORNL 2010	Cardiovascular system	ORNL 2010
Chromium (Total)	Reduced organ weight	USEPA 2010	Gastrointestinal	ORNL 2010	NA	
Beryllium	Small intestine	USEPA 2010	Skeletal	ORNL 2010	NA	
Cobalt	NA		NA		NA	
Chromium (VI)	None		NA		NA	
Fluoride	Teeth	USEPA 2010	NA		NA	
Mercury	Immune system	USEPA 2010	CNS	ORNL 2010	Kidney	ORNL 2010
Molybdenum	Blood	USEPA 2010	Liver	ORNL 2010	Kidney	ORNL 2010
Nickel	Reduced organ weight	USEPA 2010	Kidney	ORNL 2010	Blood	ORNL 2010
Nitrate (as N)	Blood	USEPA 2010	Cardiovascular system	ORNL 2010	NA	
Perchlorate	Thyroid	USEPA 2010	NA		NA	
Silver	Skin	USEPA 2010	Cardiovascular system	ORNL 2010	Kidney	ORNL 2010
Thallium	Blood	USEPA 2010	CNS	ORNL 2010	Skin	ORNL 2010
Tin	Liver	USEPA 1997	NA		NA	
Tungsten	None		NA		NA	
Vanadium	Kidney	ORNL 2010	Gastrointestinal	ORNL 2010	Blood	ORNL 2010
Zinc	Blood	USEPA 2010	Pancreas	ORNL 2010	Gastrointestinal	ORNL 2010
Organic Compounds						
1,2,4-Trimethylbenzene	NA		NA		NA	
2,4-DDE	NA		NA		NA	
4,4-DDE	NA		NA		NA	
4,4-DDT	Liver	USEPA 2010	NA		NA	
Acetone	Kidney	USEPA 2010	Liver	ORNL 2010	Blood	ORNL 2010
Acetaldehyde	NA		NA		NA	
Benzene	Lymph system	USEPA 2010	Blood	ORNL 2010	CNS	ORNL 2010
beta-BHC	NA		NA		NA	
Formaldehyde	Reduced body weight	USEPA 2010	NA		NA	

Note: Target organs were not included for the surface flux COPCs.
(1) According to ORNL (2010), all three target organs identified are considered primary target organs.
NA - Not applicable. Data is either not applicable for this chemical (*e.g.* , not carcinogenic) or not available.
CNS - Central Nervous System
IRIS - USEPA's Integrated Risk Information System. (http://cfpub.epa.gov/ncea/iris/index.cfm).
ORNL - Oak Ridge National Laboratory (http://rais.ornl.gov/tox/rap_toxp.shtml).

TABLE 21
TARGET ORGANS FOR NON-CARCINOGENS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Inhalation					
	Primary Target Organ	Reference	Secondary[(1)] Target Organ	Reference	Tertiary[(1)] Target Organ	Reference
Inorganics						
Ammonia	Respiratory system	USEPA 2010	NA		NA	
Antimony	NA		NA		NA	
Chromium (Total)	NA		NA		NA	
Beryllium	Respiratory system	USEPA 2010	Skin	ORNL 2010	Liver	ORNL 2010
Cobalt	NA		NA		NA	
Chromium (VI)	Respiratory system	USEPA 2010	NA		NA	
Fluoride	NA		NA		NA	
Mercury	NA		NA		NA	
Molybdenum	NA		NA		NA	
Nickel	Respiratory system	ORNL 2010	Immune System	ORNL 2010	Reproductive System	ORNL 2010
Nitrate (as N)	NA		NA		NA	
Perchlorate	NA		NA		NA	
Silver	NA		NA		NA	
Thallium	NA		NA		NA	
Tin	NA		NA		NA	
Tungsten	Respiratory system	NDEP 2008	NA		NA	
Vanadium	NA		NA		NA	
Zinc	NA		NA		NA	
Organic Compounds						
1,2,4-Trimethylbenzene	NA		NA		NA	
2,4-DDE	NA		NA		NA	
4,4-DDE	NA		NA		NA	
4,4-DDT	NA		NA		NA	
Acetone	Eyes	USEPA 2010	Respiratory System	USEPA 2010	CNS	USEPA 2010
Acetaldehyde	Respiratory system	USEPA 2010	NA		NA	
Benzene	Lymph system	USEPA 2010	Blood	USEPA 2010	CNS	ORNL 2010
beta-BHC	NA		NA		NA	
Formaldehyde	NA		NA		NA	

Note: Target organs were not incl
(1) According to ORNL (2010), a
NA - Not applicable. Data is eith
CNS - Central Nervous System
IRIS - USEPA's Integrated Risk I
ORNL - Oak Ridge National Labo

TABLE 22A
CHEMICAL RISK SUMMARY FOR RESIDENTIAL RECEPTORS - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 2)

Receptor	HI	Target Organ	Target Organ HIs	ILCR
Future On-Site Resident Soil, Dermal, Homegrown Produce and Dust	1.4	Blood	0.34	2 E-7
		GI	0.21	
		Thyroid	0.95	
Volatile Inhalation (from Flux)(1)	0.00024-0.023	--	--	4 E-8 - 9 E-7
Combined	1.4	Thyroid(2)	0.95	2E-7 - 1E-6

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Homegrown Produce HQ	Indoor Dust Inhal HQ	Outdoor Dust Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Homegrown Produce ILCR	Indoor Dust Inhal ILCR	Outdoor Dust Inhal ILCR	Total ILCR
Aldehydes(3)													
Acetaldehyde	3.7 E-1	NA	NA	NA	NA	4.6 E-4	4.6 E-4	NA	NA	NA	NA	4 E-9	4 E-9
Formaldehyde	1.8 E+0	1.2 E-4	3.2 E-5	6.3 E-2	NA	3.0 E-4	6.3 E-2	NA	NA	NA	NA	2 E-8	2 E-8
Inorganics													
Ammonia	2.5 E+0	NA	NA	NA	7.7 E-9	2.3 E-9	1.0 E-8	NA	NA	NA	NA	NA	NA
Antimony	5.8 E-1	1.9 E-2	0.0 E+0	1.6 E-2	NA	NA	3.4 E-2	NA	NA	NA	NA	NA	NA
Beryllium	7.2 E-1	4.6 E-3	0.0 E+0	1.1 E-3	1.1 E-5	3.3 E-6	5.7 E-3	NA	NA	NA	2 E-10	7 E-11	3 E-10
Chromium (Total)	3.5 E+1	2.9 E-4	0.0 E+0	3.8 E-5	NA	NA	3.3 E-4	NA	NA	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	5.1 E-3	0.0 E+0	6.6 E-4	4.7 E-5	1.4 E-5	5.9 E-3	NA	NA	NA	2 E-9	6 E-10	3 E-9
Cobalt	1.5 E+1	6.4 E-1	0.0 E+0	3.0 E-1	7.7 E-4	2.3 E-4	9.4 E-1	NA	NA	NA	2 E-8	5 E-9	2 E-8
Fluoride	1.7 E+0	3.6 E-4	0.0 E+0	NA	NA	NA	3.6 E-4	NA	NA	NA	NA	NA	NA
Mercury	1.0 E-2	4.4 E-4	0.0 E+0	2.1 E-4	NA	NA	6.5 E-4	NA	NA	NA	NA	NA	NA
Molybdenum	1.1 E+0	2.7 E-3	0.0 E+0	1.6 E-2	NA	NA	1.9 E-2	NA	NA	NA	NA	NA	NA
Nickel	2.0 E+1	1.3 E-2	0.0 E+0	NA	6.8 E-5	2.0 E-5	1.3 E-2	NA	NA	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	2.3 E-4	0.0 E+0	NA	NA	NA	2.3 E-4	NA	NA	NA	NA	NA	NA
Perchlorate	7.2 E-1	1.3 E-2	0.0 E+0	NA	NA	NA	1.3 E-2	NA	NA	NA	NA	NA	NA
Silver	1.4 E-1	3.5 E-4	0.0 E+0	1.2 E-3	NA	NA	1.6 E-3	NA	NA	NA	NA	NA	NA
Thallium	5.2 E-1	9.5 E-2	0.0 E+0	2.0 E-3	NA	NA	9.7 E-2	NA	NA	NA	NA	NA	NA
Tin	8.4 E-1	1.8 E-5	0.0 E+0	1.3 E-5	NA	NA	3.0 E-5	NA	NA	NA	NA	NA	NA
Tungsten	1.3 E+0	2.2 E-3	0.0 E+0	2.3 E-3	1.2 E-7	3.7 E-8	4.5 E-3	NA	NA	NA	NA	NA	NA
Vanadium	6.0 E+1	1.5 E-1	0.0 E+0	2.1 E-2	3.7 E-6	1.1 E-6	1.7 E-1	NA	NA	NA	NA	NA	NA
Zinc	6.1 E+1	2.6 E-3	0.0 E+0	NA	NA	NA	2.6 E-3	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides													
2,4-DDE	5.3 E-3	NA	NA	NA	NA	NA	NA	3 E-9	3 E-10	4 E-11	7 E-14	2 E-14	3 E-9
4,4-DDE	6.2 E-3	NA	NA	NA	NA	NA	NA	3 E-9	3 E-10	4 E-11	8 E-14	2 E-14	4 E-9
4,4-DDT	5.7 E-3	1.5 E-4	1.2 E-5	9.3 E-7	NA	NA	1.6 E-4	3 E-9	3 E-10	5 E-11	7 E-14	2 E-14	3 E-9
beta-BHC	6.2 E-4	NA	NA	NA	NA	NA	NA	2 E-9	2 E-10	9 E-8	4 E-14	1 E-14	9 E-8

TABLE 22A
CHEMICAL RISK SUMMARY FOR RESIDENTIAL RECEPTORS - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 2)

Receptor	HI	Target Organ	Target Organ HIs	ILCR
Future On-Site Resident Soil, Dermal, Homegrown Produce and Dust	1.4	Blood	0.34	2 E-7
		GI	0.21	
		Thyroid	0.95	
Volatile Inhalation (from Flux)(1)	0.00024-0.023	--	--	4 E-8 - 9 E-7
Combined	1.4	Thyroid(2)	0.95	2E-7 - 1E-6

Chemical	**Soil Conc. (mg/kg)**	**Oral HQ**	**Dermal HQ**	**Homegrown Produce HQ**	**Indoor Dust Inhal HQ**	**Outdoor Dust Inhal HQ**	**Total HI**	**Oral ILCR**	**Dermal ILCR**	**Homegrown Produce ILCR**	**Indoor Dust Inhal ILCR**	**Outdoor Dust Inhal ILCR**	**Total ILCR**
Volatile Organic Compounds													
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	2.7 E-7	7.5 E-8	3.2 E-4	NA	NA	3.2 E-4	NA	NA	NA	NA	NA	NA
Benzene	7.7 E-5	2.5 E-7	6.9 E-8	1.6 E-5	NA	NA	1.7 E-5	7 E-12	2 E-12	1 E-9	NA	NA	1 E-9
Dichloromethane	4.1 E-3	8.8 E-7	2.5 E-7	1.5 E-4	NA	NA	1.5 E-4	5 E-11	2 E-11	2 E-8	NA	NA	2 E-8
Total		0.95	0.000045	0.43	0.00090	0.0010	1.4	1 E-8	1 E-9	1 E-7	2 E-8	3 E-8	2 E-7

Note: Target organs for each of the individual COPCs are shown in Table 21.
HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) No inhalation values contribute significantly to the three target organs with the maximum HI.
(3) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 22B
CHEMICAL RISK SUMMARY FOR RESIDENTIAL RECEPTORS - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	Target Organ	Target Organ HIs	ILCR
Future On-Site Resident				
Soil, Dermal, Homegrown Produce and Dust	1.0	Blood	0.93	1 E-7
		GI	0.80	
		Kidney	0.78	
Volatile Inhalation (from Flux)(1)	0.00024-0.023	--	--	4 E-8 - 9 E-7
Combined	1.0	Blood(2)	0.93	1 E-7 - 1 E-6

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Homegrown Produce HQ	Indoor Dust Inhal HQ	Outdoor Dust Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Homegrown Produce ILCR	Indoor Dust Inhal ILCR	Outdoor Dust Inhal ILCR	Total ILCR
Aldehydes(3)													
Acetaldehyde	3.7 E-1	NA	NA	NA	NA	4.6 E-4	4.6 E-4	NA	NA	NA	NA	4 E-9	4 E-9
Formaldehyde	1.8 E+0	1.2 E-4	3.2 E-5	6.3 E-2	NA	3.0 E-4	6.3 E-2	NA	NA	NA	NA	2 E-8	2 E-8
Inorganics													
Ammonia	2.5 E+0	NA	NA	NA	7.7 E-9	2.3 E-9	1.0 E-8	NA	NA	NA	NA	NA	NA
Antimony	5.8 E-1	1.9 E-2	0.0 E+0	1.6 E-2	NA	NA	3.4 E-2	NA	NA	NA	NA	NA	NA
Beryllium	7.2 E-1	4.6 E-3	0.0 E+0	1.1 E-3	1.1 E-5	3.3 E-6	5.7 E-3	NA	NA	NA	2 E-10	7 E-11	3 E-10
Chromium (Total)	3.5 E+1	2.9 E-4	0.0 E+0	3.8 E-5	NA	NA	3.3 E-4	NA	NA	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	5.1 E-3	0.0 E+0	6.6 E-4	4.7 E-5	1.4 E-5	5.9 E-3	NA	NA	NA	2 E-9	6 E-10	3 E-9
Fluoride	1.7 E+0	3.6 E-4	0.0 E+0	NA	NA	NA	3.6 E-4	NA	NA	NA	NA	NA	NA
Mercury	1.0 E-2	4.4 E-4	0.0 E+0	2.1 E-4	NA	NA	6.5 E-4	NA	NA	NA	NA	NA	NA
Molybdenum	1.1 E+0	2.7 E-3	0.0 E+0	1.6 E-2	NA	NA	1.9 E-2	NA	NA	NA	NA	NA	NA
Nickel	2.0 E+1	1.3 E-2	0.0 E+0	NA	6.8 E-5	2.0 E-5	1.3 E-2	NA	NA	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	2.3 E-4	0.0 E+0	NA	NA	NA	2.3 E-4	NA	NA	NA	NA	NA	NA
Perchlorate	7.2 E-1	1.3 E-2	0.0 E+0	NA	NA	NA	1.3 E-2	NA	NA	NA	NA	NA	NA
Silver	1.4 E-1	3.5 E-4	0.0 E+0	1.2 E-3	NA	NA	1.6 E-3	NA	NA	NA	NA	NA	NA
Thallium	5.2 E-1	9.5 E-2	0.0 E+0	2.0 E-3	NA	NA	9.7 E-2	NA	NA	NA	NA	NA	NA
Tin	8.4 E-1	1.8 E-5	5.0 E-7	1.3 E-5	NA	NA	3.1 E-5	NA	NA	NA	NA	NA	NA
Tungsten	1.3 E+0	2.2 E-3	0.0 E+0	2.3 E-3	1.2 E-7	3.7 E-8	4.5 E-3	NA	NA	NA	NA	NA	NA
Vanadium	2.6 E+2	6.7 E-1	0.0 E+0	9.1 E-2	1.6 E-5	4.9 E-6	7.7 E-1	NA	NA	NA	NA	NA	NA
Zinc	6.1 E+1	2.6 E-3	0.0 E+0	NA	NA	NA	2.6 E-3	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides													
2,4-DDE	5.3 E-3	NA	NA	NA	NA	NA	NA	3 E-9	3 E-10	4 E-11	7 E-14	2 E-14	3 E-9
4,4-DDE	6.2 E-3	NA	NA	NA	NA	NA	NA	3 E-9	3 E-10	4 E-11	8 E-14	2 E-14	4 E-9
4,4-DDT	5.7 E-3	1.5 E-4	1.2 E-5	9.3 E-7	NA	NA	1.6 E-4	3 E-9	3 E-10	5 E-11	7 E-14	2 E-14	3 E-9
beta-BHC	6.2 E-4	NA	NA	NA	NA	NA	NA	2 E-9	2 E-10	9 E-8	4 E-14	1 E-14	9 E-8

TABLE 22B
CHEMICAL RISK SUMMARY FOR RESIDENTIAL RECEPTORS - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	Target Organ	Target Organ HIs	ILCR
Future On-Site Resident				
Soil, Dermal, Homegrown Produce and Dust	1.0	Blood	0.93	1 E-7
		GI	0.80	
		Kidney	0.78	
Volatile Inhalation (from Flux)(1)	0.00024-0.023	--	--	4 E-8 - 9 E-7
Combined	1.0	Blood(2)	0.93	1 E-7 - 1 E-6

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Homegrown Produce HQ	Indoor Dust Inhal HQ	Outdoor Dust Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Homegrown Produce ILCR	Indoor Dust Inhal ILCR	Outdoor Dust Inhal ILCR	Total ILCR
Volatile Organic Compounds													
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	2.7 E-7	7.5 E-8	3.2 E-4	NA	NA	3.2 E-4	NA	NA	NA	NA	NA	NA
Benzene	7.7 E-5	2.5 E-7	6.9 E-8	1.6 E-5	NA	NA	1.7 E-5	7 E-12	2 E-12	1 E-9	NA	NA	1 E-9
Dichloromethane	4.1 E-3	8.8 E-7	2.5 E-7	1.5 E-4	NA	NA	1.5 E-4	5 E-11	2 E-11	2 E-8	NA	NA	2 E-8
Total		0.83	0.000045	0.19	0.00014	0.00081	1.0	1 E-8	1 E-9	1 E-7	2 E-9	2 E-8	1 E-7

Note: Target organs for each of the individual COPCs are shown in Table 21.
HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) No inhalation values contribute significantly to the three target organs with the maximum HI.
(3) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 22C
CHEMICAL RISK SUMMARY FOR RESIDENTIAL RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Resident Soil, Dermal, Homegrown Produce and Dust	0.44	1 E-7
Volatile Inhalation (from Flux)(1)	0.00024-0.023	4 E-8 - 9 E-7
Combined	0.44 - 0.46	1 E-7 - 1 E-6

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Homegrown Produce HQ	Indoor Dust Inhal HQ	Outdoor Dust Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Homegrown Produce ILCR	Indoor Dust Inhal ILCR	Outdoor Dust Inhal ILCR	Total ILCR
Aldehydes(2)													
Acetaldehyde	3.7 E-1	NA	NA	NA	NA	4.6 E-4	4.6 E-4	NA	NA	NA	NA	4 E-9	4 E-9
Formaldehyde	1.8 E+0	1.2 E-4	3.2 E-5	6.3 E-2	NA	3.0 E-4	6.3 E-2	NA	NA	NA	NA	2 E-8	2 E-8
Inorganics													
Ammonia	2.5 E+0	NA	NA	NA	7.7 E-9	2.3 E-9	1.0 E-8	NA	NA	NA	NA	NA	NA
Antimony	5.8 E-1	1.9 E-2	0.0 E+0	1.6 E-2	NA	NA	3.4 E-2	NA	NA	NA	NA	NA	NA
Beryllium	7.2 E-1	4.6 E-3	0.0 E+0	1.1 E-3	1.1 E-5	3.3 E-6	5.7 E-3	NA	NA	NA	2 E-10	7 E-11	3 E-10
Chromium (Total)	3.5 E+1	2.9 E-4	0.0 E+0	3.8 E-5	NA	NA	3.3 E-4	NA	NA	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	5.1 E-3	0.0 E+0	6.6 E-4	4.7 E-5	1.4 E-5	5.9 E-3	NA	NA	NA	2 E-9	6 E-10	3 E-9
Fluoride	1.7 E+0	3.6 E-4	0.0 E+0	NA	NA	NA	3.6 E-4	NA	NA	NA	NA	NA	NA
Mercury	1.0 E-2	4.4 E-4	0.0 E+0	2.1 E-4	NA	NA	6.5 E-4	NA	NA	NA	NA	NA	NA
Molybdenum	1.1 E+0	2.7 E-3	0.0 E+0	1.6 E-2	NA	NA	1.9 E-2	NA	NA	NA	NA	NA	NA
Nickel	2.0 E+1	1.3 E-2	0.0 E+0	NA	6.8 E-5	2.0 E-5	1.3 E-2	NA	NA	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	2.3 E-4	0.0 E+0	NA	NA	NA	2.3 E-4	NA	NA	NA	NA	NA	NA
Perchlorate	7.2 E-1	1.3 E-2	0.0 E+0	NA	NA	NA	1.3 E-2	NA	NA	NA	NA	NA	NA
Silver	1.4 E-1	3.5 E-4	0.0 E+0	1.2 E-3	NA	NA	1.6 E-3	NA	NA	NA	NA	NA	NA
Thallium	5.2 E-1	9.5 E-2	0.0 E+0	2.0 E-3	NA	NA	9.7 E-2	NA	NA	NA	NA	NA	NA
Tin	8.4 E-1	1.8 E-5	0.0 E+0	1.3 E-5	NA	NA	3.0 E-5	NA	NA	NA	NA	NA	NA
Tungsten	1.3 E+0	2.2 E-3	0.0 E+0	2.3 E-3	1.2 E-7	3.7 E-8	4.5 E-3	NA	NA	NA	NA	NA	NA
Vanadium	6.0 E+1	1.5 E-1	0.0 E+0	2.1 E-2	3.7 E-6	1.1 E-6	1.7 E-1	NA	NA	NA	NA	NA	NA
Zinc	6.1 E+1	2.6 E-3	0.0 E+0	NA	NA	NA	2.6 E-3	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides													
2,4-DDE	5.3 E-3	NA	NA	NA	NA	NA	NA	3 E-9	3 E-10	4 E-11	7 E-14	2 E-14	3 E-9
4,4-DDE	6.2 E-3	NA	NA	NA	NA	NA	NA	3 E-9	3 E-10	4 E-11	8 E-14	2 E-14	4 E-9
4,4-DDT	5.7 E-3	1.5 E-4	1.2 E-5	9.3 E-7	NA	NA	1.6 E-4	3 E-9	3 E-10	5 E-11	7 E-14	2 E-14	3 E-9
beta-BHC	6.2 E-4	NA	NA	NA	NA	NA	NA	2 E-9	2 E-10	9 E-8	4 E-14	1 E-14	9 E-8

TABLE 22C
CHEMICAL RISK SUMMARY FOR RESIDENTIAL RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Resident Soil, Dermal, Homegrown Produce and Dust	0.44	1 E-7
Volatile Inhalation (from Flux)(1)	0.00024-0.023	4 E-8 - 9 E-7
Combined	0.44 - 0.46	1 E-7 - 1 E-6

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Homegrown Produce HQ	Indoor Dust Inhal HQ	Outdoor Dust Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Homegrown Produce ILCR	Indoor Dust Inhal ILCR	Outdoor Dust Inhal ILCR	Total ILCR
Volatile Organic Compounds													
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	2.7 E-7	7.5 E-8	3.2 E-4	NA	NA	3.2 E-4	NA	NA	NA	NA	NA	NA
Benzene	7.7 E-5	2.5 E-7	6.9 E-8	1.6 E-5	NA	NA	1.7 E-5	7 E-12	2 E-12	1 E-9	NA	NA	1 E-9
Dichloromethane	4.1 E-3	8.8 E-7	2.5 E-7	1.5 E-4	NA	NA	1.5 E-4	5 E-11	2 E-11	2 E-8	NA	NA	2 E-8
Total		0.31	0.000045	0.12	0.00013	0.00080	0.44	1 E-8	1 E-9	1 E-7	2 E-9	2 E-8	1 E-7

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) No inhalation values contribute significantly to the three target organs with the maximum HI.
(3) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 23A
CHEMICAL RISK SUMMARY FOR CONSTRUCTION WORKER RECEPTORS - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Construction Worker		
Soil, Dermal and Dust	0.47	2 E-7
Volatile Inhalation (from Flux)(1)	0.000026-0.0026	1 E-10 - 3 E-9
Combined	0.47-0.48	2 E-7

Chemical	Soil Concentration (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Aldehydes(2)									
Acetaldehyde	3.7 E-1	NA	NA	1.3 E-3	1.3 E-3	NA	NA	4 E-10	4 E-10
Formaldehyde	1.8 E+0	2.9 E-5	8.7 E-6	8.6 E-4	9.0 E-4	NA	NA	2 E-9	2 E-9
Inorganics									
Ammonia	2.5 E+0	NA	NA	2.0 E-6	2.0 E-6	NA	NA	NA	NA
Antimony	5.8 E-1	4.7 E-3	0.0 E+0	NA	4.7 E-3	NA	NA	NA	NA
Beryllium	7.2 E-1	4.6 E-4	0.0 E+0	2.9 E-3	3.3 E-3	NA	NA	2 E-9	2 E-9
Chromium (Total)	3.5 E+1	7.4 E-5	0.0 E+0	NA	7.4 E-5	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	1.3 E-3	0.0 E+0	1.2 E-2	1.3 E-2	NA	NA	2 E-8	2 E-8
Cobalt	1.5 E+1	1.6 E-1	0.0 E+0	2.0 E-1	3.6 E-1	NA	NA	2 E-7	2 E-7
Fluoride	1.7 E+0	9.1 E-5	2.7 E-5	NA	1.2 E-4	NA	NA	NA	NA
Mercury	1.0 E-2	1.1 E-4	0.0 E+0	NA	1.1 E-4	NA	NA	NA	NA
Molybdenum	1.1 E+0	6.9 E-4	0.0 E+0	NA	6.9 E-4	NA	NA	NA	NA
Nickel	2.0 E+1	3.2 E-3	0.0 E+0	1.8 E-2	2.1 E-2	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	5.8 E-5	0.0 E+0	NA	5.8 E-5	NA	NA	NA	NA
Perchlorate	7.2 E-1	3.3 E-3	0.0 E+0	NA	3.3 E-3	NA	NA	NA	NA
Silver	1.4 E-1	8.7 E-5	0.0 E+0	NA	8.7 E-5	NA	NA	NA	NA
Thallium	5.2 E-1	2.4 E-2	0.0 E+0	NA	2.4 E-2	NA	NA	NA	NA
Tin	8.4 E-1	4.5 E-6	1.4 E-7	NA	4.7 E-6	NA	NA	NA	NA
Tungsten	1.3 E+0	5.6 E-4	0.0 E+0	3.2 E-5	5.9 E-4	NA	NA	NA	NA
Vanadium	6.0 E+1	3.9 E-2	0.0 E+0	9.7 E-4	4.0 E-2	NA	NA	NA	NA
Zinc	6.1 E+1	6.6 E-4	0.0 E+0	NA	6.6 E-4	NA	NA	NA	NA
Organochlorine Pesticides									
2,4-DDE	5.3 E-3	NA	NA	NA	NA	8 E-11	8 E-12	6 E-13	9 E-11
4,4-DDE	6.2 E-3	NA	NA	NA	NA	1 E-10	9 E-12	7 E-13	1 E-10
4,4-DDT	5.7 E-3	3.7 E-5	3.3 E-6	NA	4.0 E-5	9 E-11	8 E-12	6 E-13	1 E-10
beta-BHC	6.2 E-4	NA	NA	NA	NA	5 E-11	6 E-12	4 E-13	6 E-11

TABLE 23A
CHEMICAL RISK SUMMARY FOR CONSTRUCTION WORKER RECEPTORS - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Construction Worker		
Soil, Dermal and Dust	0.47	2 E-7
Volatile Inhalation (from Flux)(1)	0.000026-0.0026	1 E-10 - 3 E-9
Combined	0.47-0.48	2 E-7

Chemical	Soil Concentration (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Volatile Organic Compounds									
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	6.1 E-8	1.8 E-8	NA	7.9 E-8	NA	NA	NA	NA
Benzene	7.7 E-5	6.2 E-8	1.9 E-8	NA	8.1 E-8	2 E-13	6 E-14	NA	3 E-13
Dichloromethane	4.1 E-3	2.2 E-7	6.7 E-8	NA	2.9 E-7	1 E-12	4 E-13	NA	2 E-12
Total		0.24	0.000040	0.24	0.47	3 E-10	3 E-11	2 E-7	2 E-7

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 23B
CHEMICAL RISK SUMMARY FOR CONSTRUCTION WORKER RECEPTORS - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Construction Worker		
Soil, Dermal and Dust	0.25	2 E-8
Volatile Inhalation (from Flux)(1)	0.000026-0.0026	1 E-10 - 3 E-9
Combined	0.25	2 E-8

Chemical	Soil Concentration (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Aldehydes(2)									
Acetaldehyde	3.7 E-1	NA	NA	1.3 E-3	1.3 E-3	NA	NA	4 E-10	4 E-10
Formaldehyde	1.8 E+0	2.9 E-5	8.7 E-6	8.6 E-4	9.0 E-4	NA	NA	2 E-9	2 E-9
Inorganics									
Ammonia	2.5 E+0	NA	NA	2.0 E-6	2.0 E-6	NA	NA	NA	NA
Antimony	5.8 E-1	4.7 E-3	0.0 E+0	NA	4.7 E-3	NA	NA	NA	NA
Beryllium	7.2 E-1	4.6 E-4	0.0 E+0	2.9 E-3	3.3 E-3	NA	NA	2 E-9	2 E-9
Chromium (Total)	3.5 E+1	7.4 E-5	0.0 E+0	NA	7.4 E-5	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	1.3 E-3	0.0 E+0	1.2 E-2	1.3 E-2	NA	NA	2 E-8	2 E-8
Fluoride	1.7 E+0	9.1 E-5	2.7 E-5	NA	1.2 E-4	NA	NA	NA	NA
Mercury	1.0 E-2	1.1 E-4	0.0 E+0	NA	1.1 E-4	NA	NA	NA	NA
Molybdenum	1.1 E+0	6.9 E-4	0.0 E+0	NA	6.9 E-4	NA	NA	NA	NA
Nickel	2.0 E+1	3.2 E-3	0.0 E+0	1.8 E-2	2.1 E-2	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	5.8 E-5	0.0 E+0	NA	5.8 E-5	NA	NA	NA	NA
Perchlorate	7.2 E-1	3.3 E-3	0.0 E+0	NA	3.3 E-3	NA	NA	NA	NA
Silver	1.4 E-1	8.7 E-5	0.0 E+0	NA	8.7 E-5	NA	NA	NA	NA
Thallium	5.2 E-1	2.4 E-2	0.0 E+0	NA	2.4 E-2	NA	NA	NA	NA
Tin	8.4 E-1	4.5 E-6	1.4 E-7	NA	4.7 E-6	NA	NA	NA	NA
Tungsten	1.3 E+0	5.6 E-4	0.0 E+0	3.2 E-5	5.9 E-4	NA	NA	NA	NA
Vanadium	2.6 E+2	1.7 E-1	0.0 E+0	4.2 E-3	1.7 E-1	NA	NA	NA	NA
Zinc	6.1 E+1	6.6 E-4	0.0 E+0	NA	6.6 E-4	NA	NA	NA	NA
Organochlorine Pesticides									
2,4-DDE	5.3 E-3	NA	NA	NA	NA	8 E-11	8 E-12	6 E-13	9 E-11
4,4-DDE	6.2 E-3	NA	NA	NA	NA	1 E-10	9 E-12	7 E-13	1 E-10
4,4-DDT	5.7 E-3	3.7 E-5	3.3 E-6	NA	4.0 E-5	9 E-11	8 E-12	6 E-13	1 E-10
beta-BHC	6.2 E-4	NA	NA	NA	NA	5 E-11	6 E-12	4 E-13	6 E-11

TABLE 23B
CHEMICAL RISK SUMMARY FOR CONSTRUCTION WORKER RECEPTORS - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 2)

Receptor	HI	ILCR
Future On-Site Construction Worker		
Soil, Dermal and Dust	0.25	2 E-8
Volatile Inhalation (from Flux)(1)	0.000026-0.0026	1 E-10 - 3 E-9
Combined	0.25	2 E-8

Chemical	Soil Concentration (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Volatile Organic Compounds									
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	6.1 E-8	1.8 E-8	NA	7.9 E-8	NA	NA	NA	NA
Benzene	7.7 E-5	6.2 E-8	1.9 E-8	NA	8.1 E-8	2 E-13	6 E-14	NA	3 E-13
Dichloromethane	4.1 E-3	2.2 E-7	6.7 E-8	NA	2.9 E-7	1 E-12	4 E-13	NA	2 E-12
Total		0.21	0.000040	0.039	0.25	3 E-10	3 E-11	2 E-8	2 E-8

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 23C
CHEMICAL RISK SUMMARY FOR CONSTRUCTION WORKER RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Construction Worker		
Soil, Dermal and Dust	0.11	2 E-8
Volatile Inhalation (from Flux)(1)	0.000026-0.0026	1 E-10 - 3 E-9
Combined	0.11-0.12	2 E-8

Chemical	Soil Concentration (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Aldehydes(2)									
Acetaldehyde	3.7 E-1	NA	NA	1.3 E-3	1.3 E-3	NA	NA	4 E-10	4 E-10
Formaldehyde	1.8 E+0	2.9 E-5	8.7 E-6	8.6 E-4	9.0 E-4	NA	NA	2 E-9	2 E-9
Inorganics									
Ammonia	2.5 E+0	NA	NA	2.0 E-6	2.0 E-6	NA	NA	NA	NA
Antimony	5.8 E-1	4.7 E-3	0.0 E+0	NA	4.7 E-3	NA	NA	NA	NA
Beryllium	7.2 E-1	4.6 E-4	0.0 E+0	2.9 E-3	3.3 E-3	NA	NA	2 E-9	2 E-9
Chromium (Total)	3.5 E+1	7.4 E-5	0.0 E+0	NA	7.4 E-5	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	1.3 E-3	0.0 E+0	1.2 E-2	1.3 E-2	NA	NA	2 E-8	2 E-8
Fluoride	1.7 E+0	9.1 E-5	2.7 E-5	NA	1.2 E-4	NA	NA	NA	NA
Mercury	1.0 E-2	1.1 E-4	0.0 E+0	NA	1.1 E-4	NA	NA	NA	NA
Molybdenum	1.1 E+0	6.9 E-4	0.0 E+0	NA	6.9 E-4	NA	NA	NA	NA
Nickel	2.0 E+1	3.2 E-3	0.0 E+0	1.8 E-2	2.1 E-2	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	5.8 E-5	0.0 E+0	NA	5.8 E-5	NA	NA	NA	NA
Perchlorate	7.2 E-1	3.3 E-3	0.0 E+0	NA	3.3 E-3	NA	NA	NA	NA
Silver	1.4 E-1	8.7 E-5	0.0 E+0	NA	8.7 E-5	NA	NA	NA	NA
Thallium	5.2 E-1	2.4 E-2	0.0 E+0	NA	2.4 E-2	NA	NA	NA	NA
Tin	8.4 E-1	4.5 E-6	1.4 E-7	NA	4.7 E-6	NA	NA	NA	NA
Tungsten	1.3 E+0	5.6 E-4	0.0 E+0	3.2 E-5	5.9 E-4	NA	NA	NA	NA
Vanadium	6.0 E+1	3.9 E-2	0.0 E+0	9.7 E-4	4.0 E-2	NA	NA	NA	NA
Zinc	6.1 E+1	6.6 E-4	0.0 E+0	NA	6.6 E-4	NA	NA	NA	NA
Organochlorine Pesticides									
2,4-DDE	5.3 E-3	NA	NA	NA	NA	8 E-11	8 E-12	6 E-13	9 E-11
4,4-DDE	6.2 E-3	NA	NA	NA	NA	1 E-10	9 E-12	7 E-13	1 E-10
4,4-DDT	5.7 E-3	3.7 E-5	3.3 E-6	NA	4.0 E-5	9 E-11	8 E-12	6 E-13	1 E-10
beta-BHC	6.2 E-4	NA	NA	NA	NA	5 E-11	6 E-12	4 E-13	6 E-11

TABLE 23C
CHEMICAL RISK SUMMARY FOR CONSTRUCTION WORKER RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 2)

Receptor	HI	ILCR
Future On-Site Construction Worker		
Soil, Dermal and Dust	0.11	2 E-8
Volatile Inhalation (from Flux)(1)	0.000026-0.0026	1 E-10 - 3 E-9
Combined	0.11-0.12	2 E-8

Chemical	**Soil Concentration (mg/kg)**	**Oral HQ**	**Dermal HQ**	**Outdoor Inhal HQ**	**Total HI**	**Oral ILCR**	**Dermal ILCR**	**Outdoor Inhal ILCR**	**Total ILCR**
Volatile Organic Compounds									
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	6.1 E-8	1.8 E-8	NA	7.9 E-8	NA	NA	NA	NA
Benzene	7.7 E-5	6.2 E-8	1.9 E-8	NA	8.1 E-8	2 E-13	6 E-14	NA	3 E-13
Dichloromethane	4.1 E-3	2.2 E-7	6.7 E-8	NA	2.9 E-7	1 E-12	4 E-13	NA	2 E-12
Total		0.078	0.000040	0.036	0.11	3 E-10	3 E-11	2 E-8	2 E-8

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 24A
CHEMICAL RISK SUMMARY FOR COMMERCIAL WORKER RECEPTORS - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Commercial Worker		
Soil and Dust	0.037	7 E-9
Volatile Inhalation (from Flux)(1)	0.000031-0.0031	4 E-9 - 1 E-7
Combined	0.037-0.040	1 E-8 - 1 E-7

Chemical	Soil Concentration (mg/kg)	Oral HQ	Indoor Dust Inhal HQ	Total HI	Oral ILCR	Indoor Dust Inhal ILCR	Total ILCR
Aldehydes(2)							
Acetaldehyde	3.7 E-1	NA	NA	NA	NA	NA	NA
Formaldehyde	1.8 E+0	4.4 E-6	NA	4.4 E-6	NA	NA	NA
Inorganics							
Ammonia	2.5 E+0	NA	2.6 E-9	2.6 E-9	NA	NA	NA
Antimony	5.8 E-1	7.1 E-4	NA	7.1 E-4	NA	NA	NA
Beryllium	7.2 E-1	1.8 E-4	3.8 E-6	1.8 E-4	NA	7 E-11	7 E-11
Chromium (Total)	3.5 E+1	1.1 E-5	NA	1.1 E-5	NA	NA	NA
Chromium (VI)	1.2 E+0	2.0 E-4	1.6 E-5	2.1 E-4	NA	6 E-10	6 E-10
Cobalt	1.5 E+1	2.4 E-2	2.6 E-4	2.5 E-2	NA	5 E-9	5 E-9
Fluoride	1.7 E+0	1.4 E-5	NA	1.4 E-5	NA	NA	NA
Mercury	1.0 E-2	1.7 E-5	NA	1.7 E-5	NA	NA	NA
Molybdenum	1.1 E+0	1.1 E-4	NA	1.1 E-4	NA	NA	NA
Nickel	2.0 E+1	4.8 E-4	2.3 E-5	5.1 E-4	NA	NA	NA
Nitrate (as N)	2.9 E+1	8.8 E-6	NA	8.8 E-6	NA	NA	NA
Perchlorate	7.2 E-1	5.0 E-4	NA	5.0 E-4	NA	NA	NA
Silver	1.4 E-1	1.3 E-5	NA	1.3 E-5	NA	NA	NA
Thallium	5.2 E-1	3.6 E-3	NA	3.6 E-3	NA	NA	NA
Tin	8.4 E-1	6.9 E-7	NA	6.9 E-7	NA	NA	NA
Tungsten	1.3 E+0	8.4 E-5	4.2 E-8	8.5 E-5	NA	NA	NA
Vanadium	6.0 E+1	5.9 E-3	1.3 E-6	5.9 E-3	NA	NA	NA
Zinc	6.1 E+1	1.0 E-4	NA	1.0 E-4	NA	NA	NA
Organochlorine Pesticides							
2,4-DDE	5.3 E-3	NA	NA	NA	3 E-10	2 E-14	3 E-10
4,4-DDE	6.2 E-3	NA	NA	NA	4 E-10	2 E-14	4 E-10
4,4-DDT	5.7 E-3	5.6 E-6	NA	5.6 E-6	3 E-10	2 E-14	3 E-10
beta-BHC	6.2 E-4	NA	NA	NA	2 E-10	1 E-14	2 E-10

Receptor	HI	ILCR
Future On-Site Commercial Worker		
Soil and Dust	0.037	7 E-9
Volatile Inhalation (from Flux)(1)	0.000031-0.0031	4 E-9 - 1 E-7
Combined	0.037-0.040	1 E-8 - 1 E-7

Chemical	Soil Concentration (mg/kg)	Oral HQ	Indoor Dust Inhal HQ	Total HI	Oral ILCR	Indoor Dust Inhal ILCR	Total ILCR
Volatile Organic Compounds							
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	1.0 E-8	NA	1.0 E-8	NA	NA	NA
Benzene	7.7 E-5	9.4 E-9	NA	9.4 E-9	7 E-13	NA	7 E-13
Dichloromethane	4.1 E-3	3.4 E-8	NA	3.4 E-8	5 E-12	NA	5 E-12
Total		0.036	0.00031	0.037	1 E-9	6 E-9	7 E-9

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 24B
CHEMICAL RISK SUMMARY FOR COMMERCIAL WORKER RECEPTORS - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Commercial Worker		
Soil and Dust	0.032	2 E-9
Volatile Inhalation (from Flux)(1)	0.000031-0.0031	4 E-9 - 1 E-7
Combined	0.032-0.035	6 E-9 - 1 E-7

Chemical	Soil Concentration (mg/kg)	Oral HQ	Indoor Dust Inhal HQ	Total HI	Oral ILCR	Indoor Dust Inhal ILCR	Total ILCR
Aldehydes(2)							
Acetaldehyde	3.7 E-1	NA	NA	NA	NA	NA	NA
Formaldehyde	1.8 E+0	4.4 E-6	NA	4.4 E-6	NA	NA	NA
Inorganics							
Ammonia	2.5 E+0	NA	2.6 E-9	2.6 E-9	NA	NA	NA
Antimony	5.8 E-1	7.1 E-4	NA	7.1 E-4	NA	NA	NA
Beryllium	7.2 E-1	1.8 E-4	3.8 E-6	1.8 E-4	NA	7 E-11	7 E-11
Chromium (Total)	3.5 E+1	1.1 E-5	NA	1.1 E-5	NA	NA	NA
Chromium (VI)	1.2 E+0	2.0 E-4	1.6 E-5	2.1 E-4	NA	6 E-10	6 E-10
Fluoride	1.7 E+0	1.4 E-5	NA	1.4 E-5	NA	NA	NA
Mercury	1.0 E-2	1.7 E-5	NA	1.7 E-5	NA	NA	NA
Molybdenum	1.1 E+0	1.1 E-4	NA	1.1 E-4	NA	NA	NA
Nickel	2.0 E+1	4.8 E-4	2.3 E-5	5.1 E-4	NA	NA	NA
Nitrate (as N)	2.9 E+1	8.8 E-6	NA	8.8 E-6	NA	NA	NA
Perchlorate	7.2 E-1	5.0 E-4	NA	5.0 E-4	NA	NA	NA
Silver	1.4 E-1	1.3 E-5	NA	1.3 E-5	NA	NA	NA
Thallium	5.2 E-1	3.6 E-3	NA	3.6 E-3	NA	NA	NA
Tin	8.4 E-1	6.9 E-7	NA	6.9 E-7	NA	NA	NA
Tungsten	1.3 E+0	8.4 E-5	4.2 E-8	8.5 E-5	NA	NA	NA
Vanadium	2.6 E+2	2.6 E-2	5.6 E-6	2.6 E-2	NA	NA	NA
Zinc	6.1 E+1	1.0 E-4	NA	1.0 E-4	NA	NA	NA
Organochlorine Pesticides							
2,4-DDE	5.3 E-3	NA	NA	NA	3 E-10	2 E-14	3 E-10
4,4-DDE	6.2 E-3	NA	NA	NA	4 E-10	2 E-14	4 E-10
4,4-DDT	5.7 E-3	5.6 E-6	NA	5.6 E-6	3 E-10	2 E-14	3 E-10
beta-BHC	6.2 E-4	NA	NA	NA	2 E-10	1 E-14	2 E-10

TABLE 24B
CHEMICAL RISK SUMMARY FOR COMMERCIAL WORKER RECEPTORS - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 2)

Receptor	HI	ILCR
Future On-Site Commercial Worker		
Soil and Dust	0.032	2 E-9
Volatile Inhalation (from Flux)(1)	0.000031-0.0031	4 E-9 - 1 E-7
Combined	0.032-0.035	6 E-9 - 1 E-7

Chemical	Soil Concentration (mg/kg)	Oral HQ	Indoor Dust Inhal HQ	Total HI	Oral ILCR	Indoor Dust Inhal ILCR	Total ILCR
Volatile Organic Compounds							
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	1.0 E-8	NA	1.0 E-8	NA	NA	NA
Benzene	7.7 E-5	9.4 E-9	NA	9.4 E-9	7 E-13	NA	7 E-13
Dichloromethane	4.1 E-3	3.4 E-8	NA	3.4 E-8	5 E-12	NA	5 E-12
Total		0.032	0.000049	0.032	1 E-9	6 E-10	2 E-9

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 24C
CHEMICAL RISK SUMMARY FOR COMMERCIAL WORKER RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 2)

Receptor	HI	ILCR
Future On-Site Commercial Worker		
Soil and Dust	0.012	2 E-9
Volatile Inhalation (from Flux)(1)	0.000031-0.0031	4 E-9 - 1 E-7
Combined	0.012-0.015	6 E-9 - 1 E-7

Chemical	Soil Concentration (mg/kg)	Oral HQ	Indoor Dust Inhal HQ	Total HI	Oral ILCR	Indoor Dust Inhal ILCR	Total ILCR
Aldehydes(2)							
Acetaldehyde	3.7 E-1	NA	NA	NA	NA	NA	NA
Formaldehyde	1.8 E+0	4.4 E-6	NA	4.4 E-6	NA	NA	NA
Inorganics							
Ammonia	2.5 E+0	NA	2.6 E-9	2.6 E-9	NA	NA	NA
Antimony	5.8 E-1	7.1 E-4	NA	7.1 E-4	NA	NA	NA
Beryllium	7.2 E-1	1.8 E-4	3.8 E-6	1.8 E-4	NA	7 E-11	7 E-11
Chromium (Total)	3.5 E+1	1.1 E-5	NA	1.1 E-5	NA	NA	NA
Chromium (VI)	1.2 E+0	2.0 E-4	1.6 E-5	2.1 E-4	NA	6 E-10	6 E-10
Fluoride	1.7 E+0	1.4 E-5	NA	1.4 E-5	NA	NA	NA
Mercury	1.0 E-2	1.7 E-5	NA	1.7 E-5	NA	NA	NA
Molybdenum	1.1 E+0	1.1 E-4	NA	1.1 E-4	NA	NA	NA
Nickel	2.0 E+1	4.8 E-4	2.3 E-5	5.1 E-4	NA	NA	NA
Nitrate (as N)	2.9 E+1	8.8 E-6	NA	8.8 E-6	NA	NA	NA
Perchlorate	7.2 E-1	5.0 E-4	NA	5.0 E-4	NA	NA	NA
Silver	1.4 E-1	1.3 E-5	NA	1.3 E-5	NA	NA	NA
Thallium	5.2 E-1	3.6 E-3	NA	3.6 E-3	NA	NA	NA
Tin	8.4 E-1	6.9 E-7	NA	6.9 E-7	NA	NA	NA
Tungsten	1.3 E+0	8.4 E-5	4.2 E-8	8.5 E-5	NA	NA	NA
Vanadium	6.0 E+1	5.9 E-3	1.3 E-6	5.9 E-3	NA	NA	NA
Zinc	6.1 E+1	1.0 E-4	NA	1.0 E-4	NA	NA	NA
Organochlorine Pesticides							
2,4-DDE	5.3 E-3	NA	NA	NA	3 E-10	2 E-14	3 E-10
4,4-DDE	6.2 E-3	NA	NA	NA	4 E-10	2 E-14	4 E-10
4,4-DDT	5.7 E-3	5.6 E-6	NA	5.6 E-6	3 E-10	2 E-14	3 E-10
beta-BHC	6.2 E-4	NA	NA	NA	2 E-10	1 E-14	2 E-10

TABLE 24C
CHEMICAL RISK SUMMARY FOR COMMERCIAL WORKER RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Commercial Worker		
Soil and Dust	0.012	2 E-9
Volatile Inhalation (from Flux)(1)	0.000031-0.0031	4 E-9 - 1 E-7
Combined	0.012-0.015	6 E-9 - 1 E-7

Chemical	**Soil Concentration (mg/kg)**	**Oral HQ**	**Indoor Dust Inhal HQ**	**Total HI**	**Oral ILCR**	**Indoor Dust Inhal ILCR**	**Total ILCR**
Volatile Organic Compounds							
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	1.0 E-8	NA	1.0 E-8	NA	NA	NA
Benzene	7.7 E-5	9.4 E-9	NA	9.4 E-9	7 E-13	NA	7 E-13
Dichloromethane	4.1 E-3	3.4 E-8	NA	3.4 E-8	5 E-12	NA	5 E-12
Total		0.012	0.000045	0.012	1 E-9	6 E-10	2 E-9

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 25A
CHEMICAL RISK SUMMARY FOR MAINTENANCE WORKER RECEPTORS - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 2)

Receptor	HI	ILCR
Future On-Site Maintenance Worker		
Soil, Dermal, and Dust	0.07	6 E-8
Volatile Inhalation (from Flux)(1)	0.000023-0.0023	3 E-9 - 8 E-8
Combined	0.068-0.070	6 E-8 - 1 E-7

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Aldehydes(2)									
Acetaldehyde	3.7 E-1	NA	NA	1.2 E-3	1.2 E-3	NA	NA	8 E-9	8 E-9
Formaldehyde	1.8 E+0	7.9 E-6	5.2 E-6	7.7 E-4	7.9 E-4	NA	NA	4 E-8	4 E-8
Inorganics									
Ammonia	2.5 E+0	NA	NA	5.9 E-9	5.9 E-9	NA	NA	NA	NA
Antimony	5.8 E-1	1.3 E-3	0.0 E+0	NA	1.3 E-3	NA	NA	NA	NA
Beryllium	7.2 E-1	3.2 E-4	0.0 E+0	8.6 E-6	3.2 E-4	NA	NA	1 E-10	1 E-10
Chromium (Total)	3.5 E+1	2.0 E-5	0.0 E+0	NA	2.0 E-5	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	3.5 E-4	0.0 E+0	3.6 E-5	3.9 E-4	NA	NA	1 E-9	1 E-9
Cobalt	1.5 E+1	4.4 E-2	0.0 E+0	6.0 E-4	4.4 E-2	NA	NA	1 E-8	1 E-8
Fluoride	1.7 E+0	2.5 E-5	1.6 E-5	NA	4.1 E-5	NA	NA	NA	NA
Mercury	1.0 E-2	3.0 E-5	0.0 E+0	NA	3.0 E-5	NA	NA	NA	NA
Molybdenum	1.1 E+0	1.9 E-4	0.0 E+0	NA	1.9 E-4	NA	NA	NA	NA
Nickel	2.0 E+1	8.7 E-4	0.0 E+0	5.3 E-5	9.2 E-4	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	1.6 E-5	0.0 E+0	NA	1.6 E-5	NA	NA	NA	NA
Perchlorate	7.2 E-1	9.1 E-4	0.0 E+0	NA	9.1 E-4	NA	NA	NA	NA
Silver	1.4 E-1	2.4 E-5	0.0 E+0	NA	2.4 E-5	NA	NA	NA	NA
Thallium	5.2 E-1	6.6 E-3	0.0 E+0	NA	6.6 E-3	NA	NA	NA	NA
Tin	8.4 E-1	1.2 E-6	8.2 E-8	NA	1.3 E-6	NA	NA	NA	NA
Tungsten	1.3 E+0	1.5 E-4	0.0 E+0	9.4 E-8	1.5 E-4	NA	NA	NA	NA
Vanadium	6.0 E+1	1.1 E-2	0.0 E+0	2.9 E-6	1.1 E-2	NA	NA	NA	NA
Zinc	6.1 E+1	1.8 E-4	0.0 E+0	NA	1.8 E-4	NA	NA	NA	NA
Organochlorine Pesticides									
2,4-DDE	5.3 E-3	NA	NA	NA	NA	6 E-10	1 E-10	4 E-14	7 E-10
4,4-DDE	6.2 E-3	NA	NA	NA	NA	7 E-10	1 E-10	5 E-14	8 E-10
4,4-DDT	5.7 E-3	1.0 E-5	2.0 E-6	NA	1.2 E-5	6 E-10	1 E-10	5 E-14	7 E-10
beta-BHC	6.2 E-4	NA	NA	NA	NA	3 E-10	9 E-11	3 E-14	4 E-10

TABLE 25A
CHEMICAL RISK SUMMARY FOR MAINTENANCE WORKER RECEPTORS - PUC-2 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Maintenance Worker		
Soil, Dermal, and Dust	0.07	6 E-8
Volatile Inhalation (from Flux)(1)	0.000023-0.0023	3 E-9 - 8 E-8
Combined	0.068-0.070	6 E-8 - 1 E-7

Chemical	**Soil Conc. (mg/kg)**	**Oral HQ**	**Dermal HQ**	**Outdoor Inhal HQ**	**Total HI**	**Oral ILCR**	**Dermal ILCR**	**Outdoor Inhal ILCR**	**Total ILCR**
Volatile Organic Compounds									
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	1.9 E-8	1.2 E-8	NA	3.1 E-8	NA	NA	NA	NA
Benzene	7.7 E-5	1.7 E-8	1.1 E-8	NA	2.8 E-8	1 E-12	9 E-13	NA	2 E-12
Dichloromethane	4.1 E-3	6.1 E-8	4.0 E-8	NA	1.0 E-7	1 E-11	6 E-12	NA	2 E-11
Total		0.065	0.000024	0.0027	0.068	2 E-9	5 E-10	6 E-8	6 E-8

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 25B
CHEMICAL RISK SUMMARY FOR MAINTENANCE WORKER RECEPTORS - PUA-3 EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 2)

Receptor	HI	ILCR
Future On-Site Maintenance Worker		
Soil, Dermal, and Dust	0.06	5 E-8
Volatile Inhalation (from Flux)(1)	0.000023-0.0023	3 E-9 - 8 E-8
Combined	0.060-0.062	5 E-8 - 1 E-7

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Aldehydes(2)									
Acetaldehyde	3.7 E-1	NA	NA	1.2 E-3	1.2 E-3	NA	NA	8 E-9	8 E-9
Formaldehyde	1.8 E+0	7.9 E-6	5.2 E-6	7.7 E-4	7.9 E-4	NA	NA	4 E-8	4 E-8
Inorganics									
Ammonia	2.5 E+0	NA	NA	5.9 E-9	5.9 E-9	NA	NA	NA	NA
Antimony	5.8 E-1	1.3 E-3	0.0 E+0	NA	1.3 E-3	NA	NA	NA	NA
Beryllium	7.2 E-1	3.2 E-4	0.0 E+0	8.6 E-6	3.2 E-4	NA	NA	1 E-10	1 E-10
Chromium (Total)	3.5 E+1	2.0 E-5	0.0 E+0	NA	2.0 E-5	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	3.5 E-4	0.0 E+0	3.6 E-5	3.9 E-4	NA	NA	1 E-9	1 E-9
Fluoride	1.7 E+0	2.5 E-5	1.6 E-5	NA	4.1 E-5	NA	NA	NA	NA
Mercury	1.0 E-2	3.0 E-5	0.0 E+0	NA	3.0 E-5	NA	NA	NA	NA
Molybdenum	1.1 E+0	1.9 E-4	0.0 E+0	NA	1.9 E-4	NA	NA	NA	NA
Nickel	2.0 E+1	8.7 E-4	0.0 E+0	5.3 E-5	9.2 E-4	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	1.6 E-5	0.0 E+0	NA	1.6 E-5	NA	NA	NA	NA
Perchlorate	7.2 E-1	9.1 E-4	0.0 E+0	NA	9.1 E-4	NA	NA	NA	NA
Silver	1.4 E-1	2.4 E-5	0.0 E+0	NA	2.4 E-5	NA	NA	NA	NA
Thallium	5.2 E-1	6.6 E-3	0.0 E+0	NA	6.6 E-3	NA	NA	NA	NA
Tin	8.4 E-1	1.2 E-6	8.2 E-8	NA	1.3 E-6	NA	NA	NA	NA
Tungsten	1.3 E+0	1.5 E-4	0.0 E+0	9.4 E-8	1.5 E-4	NA	NA	NA	NA
Vanadium	2.6 E+2	4.6 E-2	0.0 E+0	1.3 E-5	4.6 E-2	NA	NA	NA	NA
Zinc	6.1 E+1	1.8 E-4	0.0 E+0	NA	1.8 E-4	NA	NA	NA	NA
Organochlorine Pesticides									
2,4-DDE	5.3 E-3	NA	NA	NA	NA	6 E-10	1 E-10	4 E-14	7 E-10
4,4-DDE	6.2 E-3	NA	NA	NA	NA	7 E-10	1 E-10	5 E-14	8 E-10
4,4-DDT	5.7 E-3	1.0 E-5	2.0 E-6	NA	1.2 E-5	6 E-10	1 E-10	5 E-14	7 E-10
beta-BHC	6.2 E-4	NA	NA	NA	NA	3 E-10	9 E-11	3 E-14	4 E-10

Receptor	HI	ILCR
Future On-Site Maintenance Worker		
Soil, Dermal, and Dust	0.06	5 E-8
Volatile Inhalation (from Flux)(1)	0.000023-0.0023	3 E-9 - 8 E-8
Combined	0.060-0.062	5 E-8 - 1 E-7

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Volatile Organic Compounds									
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	1.9 E-8	1.2 E-8	NA	3.1 E-8	NA	NA	NA	NA
Benzene	7.7 E-5	1.7 E-8	1.1 E-8	NA	2.8 E-8	1 E-12	9 E-13	NA	2 E-12
Dichloromethane	4.1 E-3	6.1 E-8	4.0 E-8	NA	1.0 E-7	1 E-11	6 E-12	NA	2 E-11
Total		0.057	0.000024	0.0021	0.059	2 E-9	5 E-10	4 E-8	5 E-8

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 25C
CHEMICAL RISK SUMMARY FOR MAINTENANCE WORKER RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Maintenance Worker		
Soil, Dermal, and Dust	0.024	5 E-8
Volatile Inhalation (from Flux)(1)	0.000023-0.0023	3 E-9 - 8 E-8
Combined	0.024-0.026	5 E-8 - 1 E-7

Chemical	Soil Conc. (mg/kg)	Oral HQ	Dermal HQ	Outdoor Inhal HQ	Total HI	Oral ILCR	Dermal ILCR	Outdoor Inhal ILCR	Total ILCR
Aldehydes(2)									
Acetaldehyde	3.7 E-1	NA	NA	1.2 E-3	1.2 E-3	NA	NA	8 E-9	8 E-9
Formaldehyde	1.8 E+0	7.9 E-6	5.2 E-6	7.7 E-4	7.9 E-4	NA	NA	4 E-8	4 E-8
Inorganics									
Ammonia	2.5 E+0	NA	NA	5.9 E-9	5.9 E-9	NA	NA	NA	NA
Antimony	5.8 E-1	1.3 E-3	0.0 E+0	NA	1.3 E-3	NA	NA	NA	NA
Beryllium	7.2 E-1	3.2 E-4	0.0 E+0	8.6 E-6	3.2 E-4	NA	NA	1 E-10	1 E-10
Chromium (Total)	3.5 E+1	2.0 E-5	0.0 E+0	NA	2.0 E-5	NA	NA	NA	NA
Chromium (VI)	1.2 E+0	3.5 E-4	0.0 E+0	3.6 E-5	3.9 E-4	NA	NA	1 E-9	1 E-9
Fluoride	1.7 E+0	2.5 E-5	1.6 E-5	NA	4.1 E-5	NA	NA	NA	NA
Mercury	1.0 E-2	3.0 E-5	0.0 E+0	NA	3.0 E-5	NA	NA	NA	NA
Molybdenum	1.1 E+0	1.9 E-4	0.0 E+0	NA	1.9 E-4	NA	NA	NA	NA
Nickel	2.0 E+1	8.7 E-4	0.0 E+0	5.3 E-5	9.2 E-4	NA	NA	NA	NA
Nitrate (as N)	2.9 E+1	1.6 E-5	0.0 E+0	NA	1.6 E-5	NA	NA	NA	NA
Perchlorate	7.2 E-1	9.1 E-4	0.0 E+0	NA	9.1 E-4	NA	NA	NA	NA
Silver	1.4 E-1	2.4 E-5	0.0 E+0	NA	2.4 E-5	NA	NA	NA	NA
Thallium	5.2 E-1	6.6 E-3	0.0 E+0	NA	6.6 E-3	NA	NA	NA	NA
Tin	8.4 E-1	1.2 E-6	8.2 E-8	NA	1.3 E-6	NA	NA	NA	NA
Tungsten	1.3 E+0	1.5 E-4	0.0 E+0	9.4 E-8	1.5 E-4	NA	NA	NA	NA
Vanadium	6.0 E+1	1.1 E-2	0.0 E+0	2.9 E-6	1.1 E-2	NA	NA	NA	NA
Zinc	6.1 E+1	1.8 E-4	0.0 E+0	NA	1.8 E-4	NA	NA	NA	NA
Organochlorine Pesticides									
2,4-DDE	5.3 E-3	NA	NA	NA	NA	6 E-10	1 E-10	4 E-14	7 E-10
4,4-DDE	6.2 E-3	NA	NA	NA	NA	7 E-10	1 E-10	5 E-14	8 E-10
4,4-DDT	5.7 E-3	1.0 E-5	2.0 E-6	NA	1.2 E-5	6 E-10	1 E-10	5 E-14	7 E-10
beta-BHC	6.2 E-4	NA	NA	NA	NA	3 E-10	9 E-11	3 E-14	4 E-10

TABLE 25C
CHEMICAL RISK SUMMARY FOR MAINTENANCE WORKER RECEPTORS - SITE-WIDE EXPOSURE AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Receptor	HI	ILCR
Future On-Site Maintenance Worker		
Soil, Dermal, and Dust	0.024	5 E-8
Volatile Inhalation (from Flux)(1)	0.000023-0.0023	3 E-9 - 8 E-8
Combined	0.024-0.026	5 E-8 - 1 E-7

Chemical	**Soil Conc. (mg/kg)**	**Oral HQ**	**Dermal HQ**	**Outdoor Inhal HQ**	**Total HI**	**Oral ILCR**	**Dermal ILCR**	**Outdoor Inhal ILCR**	**Total ILCR**
Volatile Organic Compounds									
1,2,4-Trimethylbenzene	1.2 E-3	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1.9 E-2	1.9 E-8	1.2 E-8	NA	3.1 E-8	NA	NA	NA	NA
Benzene	7.7 E-5	1.7 E-8	1.1 E-8	NA	2.8 E-8	1 E-12	9 E-13	NA	2 E-12
Dichloromethane	4.1 E-3	6.1 E-8	4.0 E-8	NA	1.0 E-7	1 E-11	6 E-12	NA	2 E-11
Total		0.022	0.000024	0.0021	0.024	2 E-9	5 E-10	4 E-8	5 E-8

HQ = hazard quotient
HI - hazard index
ILCR = incremental lifetime cancer risk
(1) Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates.
(2) For the aldehydes, the volatilization factor was used for inhalation exposures since they are not included on the surface flux analyte list.

TABLE 26
ASBESTOS RISK SUMMARY
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

		CHRYSOTILE				AMPHIBOLE			
ESTIMATED RISK	**Units**	**Construction Worker**	**Maintenance Worker**	**Commercial Worker**	**Onsite Resident**	**Construction Worker**	**Maintenance Worker**	**Commercial Worker**	**Onsite Resident**
Estimated Risk (Total Structures)	Unitless	1.62E-08	5.34E-09	2.37E-09	1.08E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95% UCL (Total Structures)	Unitless	2.35E-08	7.76E-09	3.45E-09	1.57E-08	2.69E-07	8.88E-08	3.94E-08	1.80E-07
ESTIMATED AIR CONCENTRATIONS									
Estimated Airborne Concentration, Cair (best estimate)A	f/m3	8.71E+01	1.28E+00	1.28E+00	1.28E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Estimated Airborne Concentration (upper bound)B	f/m3	1.27E+02	1.86E+00	1.86E+00	1.86E+00	1.30E+01	1.91E-01	1.91E-01	1.91E-01

Notes:

[A] *Estimated Airborne Concentration = Estimated* C_{soil} ** 1/PEF*

[B] *Estimated Airborne Concentration = 95% UCL (upper bound) * 1/PEF*

TABLE 27
UNCERTAINTY ANALYSIS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Source of Uncertainty	May Underestimate Risk	May Overestimate Risk	May Under or Overestimate Risk
Environmental Sampling and Analysis			
Sampling and laboratory analyses may have been inadequate to fully characterize the concentrations at the site.			Moderate
Systematic or random errors in the chemical analyses may yield erroneous data.			Low
The risk estimates are based on the COPCs only. Other chemicals were not quantified.	Moderate		
There were several results that were rejected through data validation. Thirteen niobium results and five perchlorate results were rejected due to very low MS/MSD recoveries and one vinyl acetate result was rejected due to zero MS/MSD recoveries.	Low		
Although radon flux sampling was performed, the results were not evaluated in the human health risk assessment because the method for evaluation of this data is still being developed.	Low		
Exposure Assumptions			
Fate and transport modeling did not take into account biodegradation or other degradation processes.		Moderate	
Modeling did not take into account interactions that may occur among the different chemicals which may influence their migration.		Moderate	
Only primary receptors of concern were evaluated. Other populations (*e.g.* , trespassers) were not assessed.	Low		
Only primary exposure pathways were evaluated. Other pathways were not assessed.	Low		
Some of the exposure point concentrations used in the exposure assessment were based on modeled, rather than measured, levels in various media (*e.g.* , air).			Moderate
Reasonable maximum exposure values were combined to arrive at the ADD and LADD estimates. There is a low probability that all of the various upper bound assumptions used in the exposure assessment would occur in conjunction with the 95 percent UCL chemical concentration.		Moderate	
Exposure point concentrations and the amount of media intake were assumed to be constant over time.		Low	

Source of Uncertainty	May Underestimate Risk	May Overestimate Risk	May Under or Overestimate Risk
Toxicological Data			
Sub-chronic RfDs are appropriate to characterize non-cancer effects for short-term expo-sures (*i.e.* , construction workers). However, sub-chronic RfDs were not available and therefore, chronic RfDs were used.		Moderate	
RfDs are derived and extrapolated from laboratory animal studies that expose animals to relatively high intakes. Errors are inherent in the extrapolation of data from animals to humans, from high to low doses, and from one exposure route to another.			Moderate
RfDs used to estimate non-carcinogenic risk are derived from NOAELs which are based on the sensitive endpoints in the sensitive species. As a result, extrapolation of toxicity data from animals to humans is uncertain. There may be differences in metabolism, uptake, or distribution of chemicals in the body between animals and humans. To account for this, NOAELs are divided by uncertainty factors spanning several orders of magnitude to establish the RfD. The combination of these two conservative assumptions may establish RfDs which greatly overprotect human health.		Moderate	
CSFs used for the animal carcinogens are the 95% UCL derived from the linearized multistage model using animal chronic bioassay data, which tends to greatly overestimate carcinogenic risk in humans. The linearized multistage model ignores many known factors that have been documented to protect humans against the carcinogenic actions of chemicals, such as DNA repair and immunosurveillence.		High	
RfDs, CSFs and defensible carcinogenicity data were not available for some COPCs, which were therefore not quantitatively evaluated.	Low		
Aggregation of Exposure Units			
Aggregating the exposure areas or extrapolating from Site analytical results to estimated concentrations for individual 1/8-acre exposure areas.	Low		

TABLE 28
IMPACTS TO GROUND WATER MODELING RESULTS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

COPC	Depth to Ground-water (ft bgs)	Baseline Rainfall: Maximum Migration Depth (ft bgs)	Baseline Rainfall: Maximum Soil Moisture Conc. at Groundwater Interface (µg/L)	Normal Post-Development: Maximum Migration Depth (ft bgs)	Normal Post-Development: Maximum Soil Moisture Conc. at Groundwater Interface (µg/L)	Enhanced Recharge: Maximum Migration Depth (ft bgs)	Enhanced Recharge: Maximum Soil Moisture Conc. at Groundwater Interface (µg/L)	Maximum Measured Groundwater Concentration(1) (µg/L)	Residential Water BCL (µg/L)
1,2,4-Trimethylbenzene	45	--	--	GW	2.5 E-11	GW	2.5 E-11	--	--
2,4'-DDE	45	--	--	4.5	NA	4.5	NA	--	--
4,4'-DDE	45	--	--	4.5	NA	4.5	NA	--	--
4,4'-DDT	45	--	--	2.5	NA	2.5	NA	--	--
Acetaldehyde	45	--	--	GW	1.8 E-18	GW	164	12.6	65.7
Acetone-Previous	45	--	--	GW	240	GW	95	46	32,600
Acetone-Revised	45	GW	0.47	GW	694	GW	420	46	32,600
Ammonia	45	--	--	GW	21,488	GW	8,437	11.4	730
Antimony	45	--	--	2.9	NA	5.4	NA	--	--
Benzene	45	--	--	GW	2.0 E-8	GW	2.1 E-8	1.0	5
Beryllium	45	--	--	20	NA	20	NA	--	--
beta-BHC	45	--	--	13	NA	23	NA	--	--
Chromium (Total)	45	--	--	20	NA	20	NA	--	--
Chromium (VI)	45	--	--	20	NA	26	NA	--	--
Cobalt	45	--	--	--	NA	--	NA	--	--
Dichloromethane	45	--	--	GW	1.6 E-5	GW	1.6 E-5	7.6	5
Fluoride	45	--	--	19	NA	19	NA	--	--
Formaldehyde-Previous	45	--	--	42	NA	GW	3.2 E-16	--	--
Formaldehyde-Revised	45	NA	NA	42	NA	GW	4.6 E-16	--	--
Mercury	45	--	--	20	NA	20	NA	--	--
Molybdenum	45	--	--	20	NA	24	NA	--	--
Nickel	45	--	--	20	NA	20	NA	--	--
Nitrate (as N)-Previous	45	--	--	GW	2,000,000	GW	1,254,000	18,100	1,000
Nitrate (as N)-Revised	45	GW	2,000,000	GW	2,000,000	GW	1,359,000	18,100	1,000
Perchlorate-Previous	45	--	--	GW	160,000	GW	31,809	12,000	18
Perchlorate-Revised	45	GW	272,000	GW	140,000	GW	44,000	18,100	18
Silver	45	--	--	20	NA	20	NA	--	--
Thallium	45	--	--	13	NA	14	NA	--	--
Tin	45	--	--	--	NA	--	NA	--	--
Tungsten	45	--	--	19	NA	19	NA	--	--
Vanadium	45	--	--	20	NA	20	NA	--	--
Zinc	45	--	--	20	NA	20	NA	--	--

(1) From Sixth Round Groundwater Monitoring Report (Aug - Sept 2009) for the BMI Common Areas (Eastside).
-- = Not modeled or no data.
NA = not applicable.
Highlight indicates model runs performed based on discussions with NDEP and Consultants in October 2010.

TABLE 29
DATA QUALITY ASSESSMENT
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 3)

Table 29a: Sample Size Results for Arsenic with BCL (x10) = 3.9 mg/kg

Number of samples = 114		s = 1.41		
Threshold = 3.9 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (0.39 mg/kg)	β = 15%	110	82	65
	β = 20%	95	69	54
	β = 25%	83	59	45
MDD = 20% (0.78 mg/kg)	β = 15%	29	21	17
	β = 20%	25	18	14
	β = 25%	22	15	12
MDD = 30% (1.2 mg/kg)	β = 15%	14	10	8
	β = 20%	12	8	7
	β = 25%	11	7	6

Table 29b: Sample Size Results for Chromium (Total) with BCL = 100,000 mg/kg

Number of samples = 114		s = 38.7		
Threshold = 100,000 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (10,000 mg/kg)	β = 15%	2	1	1
	β = 20%	2	1	1
	β = 25%	2	1	1
MDD = 20% (20,000 mg/kg)	β = 15%	2	1	1
	β = 20%	2	1	1
	β = 25%	2	1	1
MDD = 30% (30,000 mg/kg)	β = 15%	2	1	1
	β = 20%	2	1	1
	β = 25%	2	1	1

Table 29c: Sample Size Results for Chromium (VI) with BCL = 230 mg/kg

Number of samples = 111		s = 0.64		
Threshold = 230 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (23 mg/kg)	β = 15%	2	1	1
	β = 20%	2	1	1
	β = 25%	2	1	1
MDD = 20% (46 mg/kg)	β = 15%	2	1	1
	β = 20%	2	1	1
	β = 25%	2	1	1
MDD = 30% (69 mg/kg)	β = 15%	2	1	1
	β = 20%	2	1	1
	β = 25%	2	1	1

Table 29d: Sample Size Results for Cobalt (Site-Wide) with BCL = 23 mg/kg

Number of samples = 114		s = 3.5		
Threshold = 23 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (2.3 mg/kg)	β = 15%	20	15	12
	β = 20%	18	13	10
	β = 25%	16	11	8
MDD = 20% (4.6 mg/kg)	β = 15%	6	4	3
	β = 20%	6	4	3
	β = 25%	5	3	3
MDD = 30% (6.9 mg/kg)	β = 15%	4	3	2
	β = 20%	3	2	2
	β = 25%	3	2	1

TABLE 29
DATA QUALITY ASSESSMENT
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Table 29e: Sample Size Results for Cobalt (PUC-2) with BCL = 23 mg/kg

Number of samples = 13		s = 7.5		
Threshold = 23 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (2.3 mg/kg)	β = 15%	90	67	54
	β = 20%	78	57	44
	β = 25%	68	48	37
MDD = 20% (4.6 mg/kg)	β = 15%	24	18	14
	β = 20%	21	15	11
	β = 25%	18	13	10
MDD = 30% (6.9 mg/kg)	β = 15%	11	8	7
	β = 20%	10	7	5
	β = 25%	9	6	5

Table 29f: Sample Size Results for Formaldehyde with BCL = 10.6 mg/kg

Number of samples = 104		s = 1.3		
Threshold = 10.6 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (1.1 mg/kg)	β = 15%	13	10	8
	β = 20%	12	8	6
	β = 25%	10	7	5
MDD = 20% (2.1 mg/kg)	β = 15%	5	3	2
	β = 20%	4	3	2
	β = 25%	4	3	2
MDD = 30% (3.2 mg/kg)	β = 15%	3	2	1
	β = 20%	3	2	1
	β = 25%	3	2	1

Table 29g: Sample Size Results for Radium-226 with Background = 2.75 pCi/g

Number of samples = 109		s = 0.43		
Threshold = 2.75 pCi/g		α = 5%	α = 10%	α = 15%
MDD = 10% (0.275 pCi/g)	β = 15%	22	16	13
	β = 20%	19	14	10
	β = 25%	17	12	9
MDD = 20% (0.55 pCi/g)	β = 15%	7	5	4
	β = 20%	6	4	3
	β = 25%	5	4	3
MDD = 30% (0.825 pCi/g)	β = 15%	4	3	2
	β = 20%	3	2	2
	β = 25%	3	2	2

Table 29h: Sample Size Results for TCDD TEQ with BCL = 50 pg/g

Number of samples = 71		s = 8.50		
Threshold = 50 pg/g		α = 5%	α = 10%	α = 15%
MDD = 10% (5 pg/g)	β = 15%	26	19	15
	β = 20%	22	16	12
	β = 25%	20	14	10
MDD = 20% (10 pg/g)	β = 15%	8	5	4
	β = 20%	7	5	4
	β = 25%	6	4	3
MDD = 30% (15 pg/g)	β = 15%	4	3	2
	β = 20%	4	3	2
	β = 25%	4	2	2

Table 29i: Sample Size Results for Vanadium (Site-Wide) with BCL = 390 mg/kg

Number of samples = 114		s = 56.8		
Threshold = 390 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (39 mg/kg)	β = 15%	19	14	11
	β = 20%	17	12	9
	β = 25%	15	10	8
MDD = 20% (78 mg/kg)	β = 15%	6	4	3
	β = 20%	5	4	3
	β = 25%	5	3	2
MDD = 30% (117 mg/kg)	β = 15%	4	2	2
	β = 20%	3	2	2
	β = 25%	3	2	1

Table 29j: Sample Size Results for Vanadium (PUA-3) with BCL = 390 mg/kg

Number of samples = 8		s = 149		
Threshold = 390 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (39 mg/kg)	β = 15%	123	92	73
	β = 20%	106	77	60
	β = 25%	93	66	50
MDD = 20% (78 mg/kg)	β = 15%	32	24	19
	β = 20%	28	20	16
	β = 25%	24	17	13
MDD = 30% (117 mg/kg)	β = 15%	15	11	9
	β = 20%	13	9	7
	β = 25%	12	8	6

Table 29k: Sample Size Results for Vanadium (Remainder of Site) with BCL = 390 mg/kg

Number of samples = 106		s = 34.7		
Threshold = 390 mg/kg		α = 5%	α = 10%	α = 15%
MDD = 10% (39 mg/kg)	β = 15%	8	6	5
	β = 20%	7	5	4
	β = 25%	7	4	3
MDD = 20% (78 mg/kg)	β = 15%	3	2	2
	β = 20%	3	2	1
	β = 25%	3	2	1
MDD = 30% (117 mg/kg)	β = 15%	2	2	1
	β = 20%	2	1	1
	β = 25%	2	1	1

α = alpha
β = beta
s = standard deviation of sample data

APPENDIX A

NDEP COMMENTS AND BRC’S RESPONSE TO COMMENTS
AND REDLINE/STRIKEOUT TEXT

APPENDIX A-1

Response to Annotations for Comments Provided in the July 9, 2010 NDEP Letter Response to Human Health Risk Assessment and Closure Report for the Mohawk Sub-Area dated November 5, 2010; and Response to NDEP Review Comments Received December 30, 2010 and January 4, 2011

New Comments and Notes on NDEP Revisions to the HHRA

1. Each table that was affected by the division of the site into three subareas has now been re-titled with an "A", "B", or "C" designation. A = PUC-2, B = PUA-3, and C = Remainder.

Response: *BRC concurs with these designations. The List of Tables and text references have been revised to reflect this change.*

2. For those tables that are used in the calculation spreadsheets such as Tables 8 and 9, only the ones in the Residential calculation spreadsheets have been updated. For example, the titles for Tables 8 and 9 have been updated with the proper A, B, and C designations as well as the titles revised to reflect the subarea. We leave it to BRC/ERM's discretion to update the tables in the commercial, maintenance, and construction worker spreadsheets accordingly. In addition, all tables, especially those that were added by the NDEP consultants should be reviewed for proper formatting, titles, and printing prior to resubmission.

Response: *BRC has updated each table as appropriate to reflect the A/B/C designations. In addition, the table formatting has been reviewed and revised as needed for internal consistency.*

3. The Table of Contents for Tables should be updated per the addition of tables (A, B, and C tables).

Response: *The List of Tables has been updated to reflect the A/B/C designations for the affected tables.*

4. References cited should be reviewed and revised as necessary by BRC.

Response: *Reference citations within the body of the text and the references presented in Section 12 have been reviewed and revised as needed.*

5. Where possible, key cells in the spreadsheets were highlighted in yellow when an input value was changed. The resulting calculation cells that depend upon the changed cell were not highlighted.

Response: *BRC has reviewed the input values changed by NDEP, and concurs with the revisions to the calculations. The shading has been removed in the revised report.*

6. We understand that all J flagged flux data were used and that the DVSRs were relied upon these flagged data. In addition, UJ flagged data were not used. We need to know why some J flagged laboratory data were replaced with UJ flags by the data validators.

Response: *These results were qualified due to blank contamination during data validation. The laboratory finds the blank acceptable as long as detections are less than three times the MDL. LDC has determined through professional judgment that any result that is less than or equal to 2 times the blank result should be qualified as non-detect "U". The laboratory J flagged data are below the PQL, and PQLs were reviewed to be acceptable from a risk perspective (or the lowest possible). If a percentage of the affected compound concentration is potentially present at Mohawk, the qualification of J flagged data to U or UJ should not result in a significant underestimation of risks.*

7. BRC should update Tables 4 and 7 per the conversation between P. Black and M. Jones on October 22, 2010,

Response: *Tables 4 and 7 have been updated as discussed.*

8. A summary discussion of the groundwater issues should be discussed in the "Potential Impacts to Groundwater" section of the Executive Summary once the modeling has been approved by NDEP. Table 26 should also be updated once the modeling has been approved.

Response: *The Executive Summary has been revised to include a discussion of potential impacts to groundwater, which incorporates modeling results approved by NDEP. In addition, Table 28 has been updated to reflect the latest modeling results.*

9. In the case of replicate or duplicate samples, the concentration in the duplicate was less than the original sample in almost every instance. While it does not need to be discussed in this HHRA, should BRC encounter this again, then it should be investigated and explained in the resulting report.

Response: *If a trend such as is noted in the above comment is observed in the future for replicate/duplicate samples, it will be investigated and discussed in the associated report. BRC is aware of no specific cause of this situation.*

10. Sections 3.5 and 5.1 should be updated to reflect the three exposure areas as should Table 27.

Response: *Section 3.5 presents a summary of the final confirmation dataset, including a discussion of chemical detections throughout the Site and focusing on those detections that exceed comparison levels for protection of human health or groundwater quality. Risk assessment details, such as exposure areas, are not discussed in Section 3. BRC has added a paragraph at the end of Section 3.5 introducing these separate areas. They are discussed further* *in Sections 5.1 and 6.1, and separated out in the risk summary sections (Sections 8.1 through 8.4).*

NDEP review: NDEP comment requested updates to Table 27 (previously Data Quality Assessment) but RTC does not indicate which Table was updated in response.

Review Response: *The calculations for cobalt (in the PUC-2 exposure area) and vanadium (in the PUA-3 exposure area) have been added to Table 29. In addition the calculations for vanadium for the remainder of the Site (that is, all data except those samples in the PUA-3 exposure area) have also been added to Table 29. In addition, the following text replaces the first sentence of the last paragraph of Section 10 (on page 10-2):*

The number of samples for cobalt in PUC-2 (13 samples) and vanadium in PUA-3 (eight samples) meet the minimum calculated adequate sample number as shown in Table 29. In addition, because of the limited aerial extent of these two separate exposure areas there are greater numbers of samples per acre than for the Site-wide values. For example, considering the sub-area, there are roughly two arsenic samples per acre. In comparison, for these two separate exposure areas, there are approximately 15 to 16 cobalt and vanadium samples per acre. Thus the number of samples for cobalt and vanadium within these areas are considered adequate.

11. A discussion of why so much blank contamination was observed must be provided. This is especially true for metals.

Response: *The following discussion has been added to Section 4.6: " A review of metal results qualified due to blank contamination uncovered that perhaps a larger than normal number of findings in blanks. Laboratory Data Consultants (LDC) observed a higher number of incidents of blank contamination during the course of the Mohawk event (July 2008 and re-sampling events April 2009) and qualified the data according to SOP-40 (BRC, ERM and MWH 2009). Based on the data review, LDC noted that most of the blank contamination occurred mainly with metals analyses performed by an older Perkin Elmer instrument at TestAmerica's St. Louis, MO laboratory. TestAmerica purchased a newer Agilent instrument and began using this instrument in July/August 2009, for 50 percent of the projects, thus reducing the blank contamination incidents. LDC confirmed there were fewer blank contamination findings after TestAmerica switched over to the new instrument. BRC requested the QA department at TestAmerica to review blank contaminations for this instrument, but did not find any significant change in method blank findings above the PQL. TestAmerica does not have a database query to cover calibration blank findings, but a review of non-conformance memos did not give a definitive pattern. The QA department indicated that the new instrument is more sensitive and cleaner (because it is new). Since the MDLs are not instrument-specific and are set as the highest value among all of the instruments, this may be the reason fewer blank hits have been shown with the new instrument. It is not known whether this has led to an over or underestimation of risk."*

In addition, EAS Laboratory performed the volatiles flux testing and also had many blank contamination issues during the course of the Mohawk event. Please see the response for comment 6 regarding flux data qualifications.

Annotated Comment List per the July 9, 2010 letter from G. Lovato. BRC needs to address all items in bold and underline. [Note: For transparency and clarity, the original NDEP comment from the July 9,2010, letter is presented first (*in italicized blue font*), followed by NDEP's updated November 5, 2010, comment (standard font). BRC provided informal responses to the July 9, 2010, NDEP comments, after which NDEP provided suggested revisions to the text. The (standard font) comment represents the latest round of NDEP comments, which BRC has incorporated in this latest version of the Mohawk Closure Report**.]**

1. *General comment, please note that referenced page numbers are from the red-line strike-out (RLSO) version of the Deliverable.* No annotation necessary.
2. *General comment, Section 8.0, Summary of Results. The results should be put into context and discussed. At a minimum, please identify the main risk drivers, both chemicals and pathways, per Section 9.11 of the Closure Plan.* Per USEPA Risk Assessment Guidance for Superfund (RAGS; USEPA, 1989; Section 8.6), the primary risk drivers should be discussed and the risk placed into context. The primary purpose of such a discussion is for clarity and transparency to the reader. It may also have an impact on the regulatory decision on the site as drivers may be COPCs with highly uncertain toxicity criteria or the methodology for dose calculation may have been highly uncertain. Therefore, the risk level chosen may well depend upon the COPC drivers at the site. Once the final risk characterizations have been finalized the drivers should be discussed by exposure area, pathway, and chemical.

Response: *The discussion in Section 8 has been expanded to include identification of specific risk drivers, by exposure area, pathway, and chemical.*

3. *General comment, the asbestos results could not be verified for chrysotile asbestos. The results presented in the spreadsheet included in Appendix H do not match those presented in Table 24. Please include the updated asbestos risk spreadsheet results in the next submittal so these can be verified. NDEP is currently modifying the spreadsheets. BRC should use these revised spreadsheets in response to this comment.* Neptune has prepared a revised spreadsheet based on the latest NDEP asbestos risk calculation spreadsheets. This recalculation of the risks actually resulted in lower risks than the previous submittal of this report. Tables 12, 13, 24 and the Executive Summary table were also updated. This general comment also relates to the response to comment #55, which requested a discussion of asbestos risk estimates in the text.

Response: *NDEP's revised asbestos risk calculations have been incorporated in the revised report, including the updated tables.*

4. *General comment regarding aggregation of exposure areas. An assumption underlying the exposure assessment is that estimates of the mean concentrations of COPCs across the entire 55-acre Site can be used as surrogates for concentrations in any 1/8th-acre residential exposure area. The report does not include justification for aggregating the exposure areas*

or extrapolating from the Site analytical results to estimated concentrations for individual 1/8th-acre exposure areas. This topic should be a significant component of the Uncertainty Analysis, and should be addressed in the Data Evaluation to provide justification that the assumptions, based on the data and the conceptual site model (CSM), are reasonable. Note this was the intent of NDEP's previous Comment #7. As one alternative to addressing this issue, NDEP suggests a discussion focused on a concise Data Quality Objective (DQO) summary table. The table should reiterate how the project DQOs, as they existed in relevant sections of previous documents that anticipated this issue, and how the data collection and analysis demonstrates these DQOs were met. Text was inserted in Section 1.1 that addresses an assumption made in the SAP for the Mohawk sub-area which states that the concentration distribution across the entire Site is relatively homogeneous. The text was expanded to indicate the need to evaluate the relative homogeneity of the data. In addition, this can also add to uncertainty in the overall estimates (though likely to be small), so it was determined that a sub-section (7.2.1) be added to the uncertainty analysis section as well as an additional section in Table 25.

Response: *The text revisions referenced in the above comment have been accepted in the revised report (Section 1.1, Section 7.2.1, and Table 27).*

5. *General comment, regarding soil sampling information. Plans for grading, "cutting" and backfilling of the Site, and associated uncertainties in the final Site condition, should be discussed in the CSM to provide a context for the sampling design and calculation of exposure concentrations. Explain why soil samples were collected over a 2-3 ft depth. State whether the 10 ft bgs samples were 2-3 ft intervals beginning, ending, or centered on 10 ft. Explain the basis for concluding that samples at 0 ft and 10 ft depths are adequate for characterizing soil between these intervals. Explain why the five depth groupings represent all possible future exposure conditions. The relationship between Site samples and the unknown post-grading condition of the Site, and the implications for the conclusions of the risk assessment, should be discussed in the Uncertainty Analysis.* This comment addresses how depth groupings can add to the overall uncertainty in the risk estimates based on the selection of the maximum UCL as an EPC. As a result, it is important to address this issue in the uncertainty analysis section. Text was added to the Uncertainty Analysis sections 7.1 and 7.2.1 to address this issue. An additional row was added to Table 25 to address this issue. BRC needs to deal with this comment from the perspective of splitting the site into 3 sub-areas by revising the HHRA accordingly.

Response: *The text revisions referenced in the above comment have been accepted in the revised report (Section 7.1, Section 7.2, and Table 27). Furthermore, the risk assessment was modified to reflect three sub-areas as discussed with NDEP. BRC has made additional revisions to the text to reflect this change as indicated in response to comment #10.*

6. *General comment regarding risk assessment equations and inputs. The risk assessment should document all of the exposure equations and input parameter values. This should include specific reference to the Closure Plan equations, with a discussion of deviations, if any. Global references to the Closure Plan and providing an Excel workbook are not sufficiently transparent. All chemical-specific inputs, such as the plant-soil ratios discussed in Section 6.1.4, should be provided in tables in the HRA. The rationale for selecting the references for such values, and the prioritization among references when multiple values are available, must be explained in the text. This issue may require additional discussion between the NDEP and BRC. Although the current reviewers are familiar with the process that has been agreed between NDEP and BRC, other reviewers or readers will not have the same level of familiarity. Consequently, greater traceability is needed throughout this report.* Per USEPA guidance (USEPA, 1992, 1995, 2000), risk assessments should be transparent and hence, reproducible. As the HHRA is currently, written, it does not clearly provide references and rationale for each decision that was made. Simple reference to the Closure Plan provides justification for much of the HHRA. However, all exposure parameters and decisions should be properly supported and justified. In addition, just having the information buried somewhere in spreadsheets for the reader to find is not sufficient (for example, the soil to plant transfer coefficients). Rather, each and every parameter value used in the assessment should be presented (and discussed) in some form and referenced in the report. **Please provide the soil to plan transfer coefficients in a table and provide the calculation for their use in the text.**

Response: *In this revised report, BRC has cited the specific locations in a given reference document where the supporting information can be located. The soil-to-plant transfer coefficients used in the risk assessment are provided in Table 15, and the calculation for their use has been provided in Section 6.1.4of the text.*

7. *Executive Summary, Conceptual Site Model section; it is not clear why off-site residents have been included as a future receptor when they are not included in the risk calculations as part of this risk assessment. The CSM is completed with a statement about which receptors are being evaluated, but it is somewhat confusing because off-site receptors have been included in the discussion. This issue appears throughout the text (Section 2.5 and 2.5.3.1) in this version of the deliverable. NDEP suggests referring to BRC's Closure Plan Section 9 or deleting this content.* No annotation necessary. The HHRA has been revised per this comment. It should be noted that in most instances, a Word comment box has been added to the RLSO text denoting which comment number is address by the change. The comment numbers refer back to those from the July 20, 2010 NDEP letter from G. Lovato.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

8. *Executive Summary, Risk Results Table, please note that the asbestos risk estimates presented in this table correspond to the estimated risk and the 95% UCL for amphibole only. Chrysotile results also need to be presented here. Please clarify why this is the case as chrysotile adds to the asbestos risks.* Given that both chyrostile and amphibole asbestos risk are to be evaluated for this sub-area, additional results and text were added to the Executive Summary. These results are also presented in Table 24 and elsewhere in the text where asbestos risk is addressed.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

9. *Section 1.1, page 1-3, 4th paragraph, 6th line, this reference should refer to the BRC Closure Plan Chapter 9 revision and not the 2007 version since the BCLs were not developed in 2007. There are other locations where the Closure Plan reference should refer to the latest version (e.g., Section 1.2, page 1-5, 4th line). Please make sure that the document reflects the current Chapter 9 of the Closure Plan where appropriate. NDEP understands that this is a complicated issue as the Closure Plan is currently in revision by BRC.* No annotation necessary. The HHRA has been revised per this comment.

Response: *Throughout the revised report, references to the Closure Plan have been expanded to clarify that the 2007 version of the closure plan is being referenced, except for Section 9 of that document, which was revised in March 2010.*

10. *Section 3.1, 1st paragraph under Rule 4, page 3-3, please include a footnote that indicates the process for delivering the final grading plan. Also, the 4th sentence of this paragraph should be referring to uncertainties with the current grading plan, not the final.* **This comment goes to the transparency and clarity of the HHRA. As grading activities will have an impact on the potential exposures at the site, then it should be fully discussed including the uncertainties surrounding it. See Comment #6 above regarding the need for transparency and clarity and #5 for grading and cutting.**

Response: *The text in Section 3.1 has been revised to include further discussion on the grading plan and uncertainties regarding grading.*

11. *Section 3.1, 2nd paragraph under Rule 4, 4th sentence, page 3-3, the total number of samples presented in the text does not correspond to what is presented in Table 1. The text indicates 46 fill, 49 surface, and 43 subsurface samples collected while Table 1 indicates that 33 fill, 38 surface, and 38 subsurface samples are collected. This adds up to 109 total samples in Table 1, while the text indicates a total of 115 samples. Please clarify so that the numbers match; otherwise it appears the data may be missing and risks under-represented.* **Please see comments provided in the text in Section 3.1. BRC needs to address this comment. This**

includes explaining where the 115 samples come from, given that this number does not match what is in Table 1 or Table 4. This explanation should also include separating out samples into the 3 exposure units. BRC should address this comment both in terms of total number of samples, and in terms of number of samples in each sub-area of interest (exposure unit).

Response: *The text in Section 3.1 has been reworked to clarify the sample tallies, and is now consistent with Table 1. It should be noted that Table 1 summarizes only the initial sampling scheme, as presented in the SAP. Table 4 is a summary of the entire post-remediation dataset, including confirmation samples and additional supplemental samples, and the number of samples presented in that table will not be consistent with Table 1. The apparent inconsistency between the tallies in the text and the database summary in Table 4 is explained in footnote 16. Footnote 14 explains that in some cases a soil sample may be considered both a fill sample and a surface sample (as indicated in Table 1), and 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.*

NDEP Review: There are still sample numbers that do not appear to add up. For example, there are 38 locations, each sampled once, plus nine duplicates. That would seem to imply 47 samples, but the text indicates 49. Also, the 104 samples consists of 42, 43 and 38 samples, 21 of which are shared between fill and surface soil – this seems to imply 102 total samples, rather than 104. An additional 10 and 18 samples were also collected, but presumably some of the original samples became obsolete (replaced through remediation and subsequent resampling). It would be helpful to complete this presentation of sample numbers by identifying which samples have been removed, and completing the count of samples used in the HHRA. Note that the number of samples for metals, for example, in Table 4 is 114. It would be helpful, for example, to understand the basis for this total by identifying total original samples, samples removed, new samples added, and hence total samples. See also new comment 76 below.

Review Response: *The following text replaces the last paragraph of Section 3.1 (on page 3-5):*

The number of soil samples collected varies for different analytes and analytical suites. For example, for arsenic, initially 102 soil samples were collected from 38 soil boring locations (including field duplicates). This included 18 random and 20 biased sample locations. At these 38 locations, BRC initially collected 47 surface samples (one at each location, and duplicates at nine locations) and 55 subsurface soil samples (two subsurface sampling intervals at 17 of the 38 soil boring locations). As presented in Table 1, these 102 samples represent 42 fill material (including nine duplicates), 43 surface (including five duplicates), and 38 subsurface soil samples. Twenty-one of the surface soil samples (including duplicates) also represent Fill samples (see discussion above regarding Fill samples). An additional eight supplemental samples (including one duplicate) and 25 confirmation samples (including three duplicates) were subsequently collected (see Section 3.3), bringing the total number of arsenic samples for the Site to 135 (102 initial samples, eight supplemental samples, and 23 confirmation samples). Of the 135 arsenic samples, 21 were in remediated areas and removed from the risk assessment dataset; thus, as shown in Table 4, there are 114 arsenic samples included in the human health

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risk assessment dataset. The numbers of soil samples included in the human health risk assessment dataset for each analyte are shown in Table 4. All sample results, from which the total number of samples can be found for each analyte, are presented electronically on the report CD in Appendix B, and in Tables B-1 through B-12. As discussed below in Section 3.5, different data distributions were identified for cobalt in PUC-2 and vanadium in PUA-3; therefore, these ponds were evaluated separately for these two metals. The numbers of samples for these two areas were 13 for cobalt in pond PUC-2 and eight for vanadium in pond PUA-3.

12. *Section 3.4, 1st paragraph under bullets, 1st sentence, please list the statistical analyses that were used here as there are some analyses (e.g., kriging) that are not used in this risk assessment that are presented in the Statistical Methodology Report.* The last sentence of the 3rd paragraph in Section 6.1.1 has been copied, modified, and added to Section 3.4 to address those statistical analyses that were not used in the risk assessment but were identified in the Statistical Methodology Report.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

13. *Section 3.5, Volatile Organic Compounds Section, please list the 13 VOCs that were detected in at least one sample as indicated in the second sentence of this subsection. Also, note that the reporting limit for dichloromethane appears to be higher than the $LBCL_{DAF1}$.* **The HHRA has been revised accordingly although BRC should correct the formatting. See Comment #6 above regarding the need for transparency and clarity.**

Response: *The text revisions referenced in the above comment have been accepted in the revised document, with appropriate formatting by BRC.*

14. *Section 3.5, Polychlorinated Biphenyls (PCBs) Section, please note that Table 4 indicates that the total sample size for PCBs ranges between 67-71 samples while the text indicates that 74 soil samples were analyzed. Please clarify (similar issue as discussed above in Comment #11).* **Please correct the HHRA accordingly. See Comment #6 above regarding the need for transparency and clarity.**

Response: *As seen in Table B-8, a total of 74 samples representing current conditions were analyzed for PCBs (i.e., excluding the shaded rows [over-excavated samples] from the tally). Most of those 74 samples (60 samples) were analyzed for Aroclors and PCBs. However, a subset was analyzed for Aroclors only (3 samples), and a subset was analyzed for PCBs only (11 samples). For this reason, the individual counts on Table 4 range from 63 to 71 samples. This information has been added to the PCB discussion in Section 3.5 as a footnote.*

15. *Section 3.6, Please reference Figure 5 in the second paragraph, second sentence.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

16. *Section 3.6, 3rd paragraph, it is not clear how 22 flux chamber samples could be analyzed for both VOCs and radon, since these chemical suites require separate sampling efforts. Please clarify.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document*

17. *Section 3.6; 6th paragraph, Table 6 indicates that 22 samples were collected while the flux investigation report in Appendix D indicates that only 21 samples were collected. Please clarify (similar issue as discussed above in Comment #17).* **It is believed that one sample was not analyzed but this should be clearly stated. Please correct the HHRA accordingly. See Comment #6 above regarding the need for transparency and clarity.**

Response: *The flux report identifies 21 sample locations, not 21 samples. The flux sampling included 3 duplicate samples, for 24 total samples, of which, as indicated in the text, two samples were not analyzed. Therefore, 22 samples, including duplicates and minus un-analyzed samples, were collected and analyzed.*

18. *Section 4.1, 8th bullet item, the data flags used by the laboratory are included but of equal importance is that the data flags and supporting information provided in the third party data validation were provided and defined adequately.* Upon further review, no action is required to address this comment.
19. *Section 4.4, 1st paragraph, BRC states, "The USEPA methods that were used in conducting the laboratory analysis of soil samples are identified in the dataset file included on the report CD in Appendix B. Each of the identified USEPA methods is considered the most appropriate method for the respective constituent class and each was approved by NDEP as part of the SAP and RAWPs (BRC 2008a,b, 2009c,d)." Please be sure to include both analytical as well as any and all preparation (digestion, extraction cleanup) methods in the report, either in Appendix B or elsewhere. The preparation methods should provide sufficient detail so that the digestion acids and oxidizers are clear, meaning this may require laboratory standard operating procedures (SOPs) (including their revision numbers) to be included in the lists.* **Please be sure to include both analytical as well as any and all preparation (digestion, extraction cleanup) methods in the report, either in Appendix B or elsewhere.**

Response: *Preparation methods are not included in the EDDs or database. Therefore, they are not something that can be readily incorporated into the electronic database in Appendix B. The preparation methods are included in the DVSRs, which are included electronically in Appendix F (on the report CD in Appendix B). Preparation methods are also included on Table 2.*

NDEP Review: NDEP could not verify that preparation methods are included in Table 2. Table 2 appears to only include analytical methods.

Review Response: *The preparation methods have been added to Table 2.*

20. *Section 4.5, general comment, this section should also address censoring of data due to blank contamination. The discussion should include what results were censored and justify why they were censored, and should focus on those analytes that were censored at values that are near or above background or near or above human risk levels. Similarly, this section should also discuss tracer recoveries, and calibration violations. If replicate, spike and surrogate results are discussed in this section it should also include blanks, tracer recoveries, and calibration violation. This discussion should then be carried into Section 4.6 and into the Uncertainty Analysis. Note, calibration violations are discussed in 4.7.2 but it isn't clear why these are left for section 4.7 versus 4.5.* **This issue needs to be discussed with BRC/ERM as blank contamination has been addressed inconsistently. A conference call is suggested.**

Response: *Inorganic results are qualified either U or J+ due to blank contamination. J+ qualifications occur if both non-calibration blank (i.e. prep, equipment or field blank) are greater than the PQL and the sample result is less than 10x the blank concentration. Inorganic results detected below the PQL requiring qualification (U), are qualified at the PQL. If the detection is greater than the PQL and requires a U qualification, the result is U qualified at the reported value. For organics, the results are U qualified at the reported value regardless of whether they are above or below the PQL. This is in accordance of the approved SOP-40, NDEP guidance on data validation and USEPA National Functional Guidelines.*

NDEP review: NDEP previous discussion with BRC indicates that BRC could resolve this issue in one of two ways: 1) by responding to the original comment rather than merely quoting National Functional Guidelines; or 2) by reviewing significance of issue as it relates to impact on background evaluation and risk calculations. Note NDEP original comment indicated that review should focus on values near or above background or human risk levels (e.g. BCLs).

Review Response: *The following text has been added to the end of the 2nd paragraph below the bulleted items in Section 4.6 (on page 4-8):*

This issue primarily affects metals with detection limits well below their respective NDEP BCL for residential soil (for example, antimony [highest non-detect value is 2.8 mg/kg versus BCL of 31 mg/kg], boron [highest non-detect value is 52.1 mg/kg versus BCL of 15,600 mg/kg], cadmium [highest non-detect value is 0.26 mg/kg versus BCL of 39 mg/kg], molybdenum

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[highest non-detect value is 2.9 mg/kg versus BCL of 390 mg/kg], and tungsten [highest non-detect value is 2.7 mg/kg versus BCL of 590 mg/kg]). Therefore, it is our professional opinion that this issue has a negligible effect on the calculated risk estimates.

21. *Section 4.5, 1st paragraph, 2nd sentence, BRC states, "Soil sample data were subject to data validation." This sentence implies that only soil samples were subject to data validation. Clarify the extent of data validation to the samples collected.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

22. *Section 4.5.2, footnote 20, page 4-8, the wording of this footnote is confusing. Consider revising this footnote to indicate that the "J-" flag was revised to a "J" flag (no bias direction indicated) when other data quality indicator results were inconsistent with the low bias information from the MS/MSD or LCS/LSCD recoveries.* BRC has not followed the USEPA guidance on data usability (DU) (1992) or the NDEP's Data Usability Guidance for the BMI Complex and Common Areas (NDEP 2008). Each sample for which relative percent difference is outside of laboratory control limits, and percent recovery is below the lower laboratory control limit, should be discussed and the rational for usability for HHRA should be given by the risk assessor (NDEP 2008). As specified in Section 5 of that guidance:

> For each data point carried into the HRA database that had laboratory QC issues (e.g., outside control limits, missing QC, missed holding time, or elevated RL) [Category "1"], provide a discussion of why (even though the required criteria were not met) the data were considered usable, if so. And for each data point indentified as unusable and eliminated from the HRA dataset [Category "2"], a discussion should be included as to why the data point was considered not usable and why elimination of the data point does not lead to a data gap. Provide a list of the specific sample identifications (IDs), and the associated anlaytes within those samples IDs, that fall into Category 1 and Category 2, and discuss, for each of the Category 1 and Category 2 data points, whey the risk assessor made the decision of whether the dap point was usable or not.

The report and data usability tables in Appendix F have been properly revised. BRC should use the DU in this HHRA as a template for all future Deliverables. In addition, it is recommended that the DU be submitted prior to any future risk assessments so that proper review time may be devoted to the DU.

Response: *The text and appendix revisions referenced in the above comment have been accepted in the revised document. BRC plans to use this DU section as a template for future Deliverables, and plans to submit the DU writeups for future Eastside sub-areas in advance of the risk assessments for those areas.*

23. *Sections 4.5 and 4.6, pages (pp.) 4-6 through 4-15, see also NDEP comment on RTC 9.r below. The Deliverable still fails to adequately address each sample that fails laboratory QC.*

For example, a sample that is associated with an "out of limits" matrix spike/matrix spike duplicate should not be considered acceptable solely on the basis of an acceptable laboratory control sample. The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity and Comment #22 on DU issues.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

24. *Section 4.6, general comment. This section should clearly indicate if all samples arrived at the lab within the preservation conditions required by the methods - including temperature limits. Any discrepancies should be identified. Leaving the holding time discussion to the DVSR is of insufficient value. The health risk assessment (HRA) (particularly the Uncertainty Analysis) should discuss each of these issues in terms of what was found – provide the results, at least in a general sense and then refer to specific tables in the DVSR – not just the DVSR as a whole. As Appendix F identifies each datum with a qualifier, this section should focus the discussion on those analytes that are impacting the human health risk as well as some representative from all analytical suites. For example, the sample quantitation limit (SQL) discussion and table includes boron and lithium. These analytes have little impact on the risk assessment. A more valuable selection would include arsenic and organics. It is suggested that BRC could use Table 4 of the Deliverable to determine which compounds are important in discussing the impact of SQLs.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

25. *Section 4.7, 2nd paragraph, 2nd bullet, and 1st sentence following bullets. This section refers to the calibration violation data discussed in Section 4.5 but nowhere in Section 4.5 is a discussion of calibration violations found. This should be added.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

26. *Section 4.7.1, general comment. This section should be expanded to include details on whether the holding time violations really have the potential to impact data quality. Please describe whether the levels of aldehydes (acetaldehyde) found in the samples could be of sufficient bias, relative to the background and HRA values (BCLs, LBCLs), that there is significant concern. This discussion should also be carried into the Uncertainty Analysis. For example, the NDEP BCL for acetaldehyde is 14, would the holding time exceedances be expected to have a level of bias that would indicate the results could possibly be near the*

BCL? This will require an understanding of chemical behavior (stability with time) but that is the essence of a usability analysis. It appears that this comment was already addressed in the electronic copy provided by BRC. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

27. *Sections 4.7.2, 4.7.3, and 4.7.4, general comment. As described above for Section 4.7.1, these sections need to be expanded to clearly understand the impact of the data quality indicator result violations on the data. The information in Table 4 should be used to link the level of bias to the BCL/background/LBCL and detected values or censored levels, including discussion in the Uncertainty Analysis section. For example, the lowest risk value for acenapthene is 29. The maximum censored value is 0.02, is there any indication that the level of bias would have been sufficient to cause a false negative for this analyte? Expand this discussion for all the compounds that showed a potential for low bias based on 4.7.2, 4.7.3, and 4.7.4. In many cases it is clear that the quality control (QC) violations likely had little impact, since the censored values or maximum detected concentrations are well below the BCL/LBCL. However, this discussion is necessary for all compounds.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

28. *Section 5.1, Background Results Table; Please change the font to bold face for the following chemicals: molybdenum, silver, and zinc.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

29. *Section 5.1, 1st sentence under Secular Equilibrium Results Table; Please indicate that uranium as a metal also is below background.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

30. *Section 5.2, general comment, please list the COPCs considered in this risk assessment.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

31. *Section 5.2, pp. 5-6, cyanide should be added to the bulleted list of chemicals eliminated due to a low detection frequency.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

32. *Section 6.1.1, pp. 6-5, the exposure point concentration discussion and associated table (Table 11) must indicate whether the SIM or the full scan result was used. Rationale for the selection should also be provided. The calculation spreadsheets indicate which value was used so changes have been made in the HHRA.* However, all future deliverables should clearly indicate whether the full scan or SIM is presented in the associated data table (Table 11 in this HHRA).

Response: *This information is provided in the calculation spreadsheets and has been added to Table 11.*

33. *Section 6.1.2, general comment, please indicate in a footnote or in the text that radon exposures will be evaluated following the approval of a sampling methodology.* A paragraph was added to the text to indicate that the NDEP has not yet approved a sampling methodology for radon and that radon will only be evaluated when such a method has been approved.

Response: *The text in Section 3.6 has been expanded to discuss the technical memorandum BRC recently submitted to NDEP, in which the results of recent radon testing performed in groundwater and indoor air samples were presented. Based on the findings of this memorandum, NDEP concluded that HHRAs for Eastside property sub-areas do not need to evaluate the pathway of radon migration from groundwater to indoor air for sub-areas with a separation distance of at least 15 feet between any current or future building structure base and the high water table (letter dated November 9, 2010 from Greg Lovato, NDEP to Mark Paris, BRC). The expanded text in Section 3.6 explains that based on this conclusion and given the depth to groundwater at the Site is at least 45 feet bgs, the intrusion of radon into indoor air is not evaluated in the HHRA for this Site.*

34. *Section 6.1.2, page 6-6, paragraph at top of page, BRC states "The infiltration factor is based on the American Society for Testing and Materials (ASTM) Standard Guide for Risk Based Corrective Action (2000)." This is the same sentence and equation as presented in the Closure Plan (BRC, 2007). There is no explanation in either document as to what "is based on ASTM RBCA Designation E 2081-00" means. The equation as presented herein is not in the ASTM*

reference cited. Please provide documentation for its derivation. Issue tabled pending further direction from NDEP.

Response: *This equation was provided to BRC by NDEP (early in the Closure Plan development process).*

NDEP review: As discussed with BRC, NDEP anticipates that potential vapor intrusion issues will be generally addressed via a combination of USEPA 2002 Vapor Intrusion guidance and with utilization of existing surface flux and soil gas side by side data (presented in the July 6, 2010 BRC Document *Discussion of the Flux Chamber/Soil Gas Comparative Study Testing Conducted in Study Area Station Nos. 3 and 4, BMI Common Areas (Eastside), Clark County, Nevada* in accordance with a new technical memo to be provided by BRC and reviewed by NDEP.

Review Response: *Text has been added to Section 6.1.2, and an appendix (Appendix J) has also been added, regarding this issue, based on recent discussions and agreements with NDEP.*

35. *Section 6.1.4 and Section 7, plant-soil concentration ratios, general comment, these values for metals frequently vary by a considerable amount across references such as Baes et al 1984, USEPA 2005, Bechtel 1998 and other common references (the RESRAD computer code, available on-line; Pacific Northwest National Laboratory in NUREG/CR-5512; International Atomic Energy Agency Technical Report Series No. 364) not cited in Section 6.1.4. The range of such values for COPCs, and where the values used in the risk assessment fall within that range, should be discussed in the Uncertainty Analysis.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

36. *Section 7-1, please reference the SOP on field sampling in this section. Sampling depths (in particular, the surface samples defined as 0-2 ft) can also play into the overall uncertainty of this risk assessment and should be cross-referenced to the NDEP-approved SOP.* **As the grading plan affects the interpretation of the data in terms of assigning samples to the surface or the subsurface, a paragraph was added at the end of Section 7.1 to address those uncertainties that can be introduced into risk assessment by those assumptions. BRC should provide additional information on the sample depths. Specifically, the text should be added that clarifies which soil depth intervals-specific data set was used for each of the following the resident, nonintrusive worker, construction worker, leaching. Depth should be resident (0 – 2 foot and 0 – 10 foot), nonintrusive workers (0 – 2 foot), intrusive (construction worker) (0 – 10 foot), leaching (all depths).**

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***Response:** The text revisions referenced in the above comment have been incorporated in the revised document. Furthermore, BRC has added text to Section 6.1 to clarify the soil depth intervals used for each exposure scenario.*

37. *Section 7.1, pp. 7-2 to 7-3, the issues of uncertainty associated with the sample analyses were not adequately addressed in terms of potential for underestimation of EPCs. Please see comment below regarding RTC 9.r.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

***Response:** The text revisions referenced in the above comment have been accepted in the revised document.*

38. *Section 7.2.2, it is suggested that the argument presented for failing to assess uptake of perchlorate in plants be discussed clearly in the Uncertainty Analysis.* Text was added in Section 7.2.3 to elaborate on the uncertainty surrounding the uptake of perchlorate in plants. We also ran the risk with a plant-to-soil uptake ratio of 1, which only adds 0.29 to the HI. Assuming that the uptake factor is quite a lot less, then this appears to be a non-issue.

***Response:** The text revisions referenced in the above comment have been accepted in the revised document. BRC concurs that the issue in the above comment should have no effect on the risk assessment findings or reliability.*

39. *Section 8.1, 1st sentence, the hazard index (HI) presented in the first sentence is 1.3, while Table 20 indicates that the HI = 1.2. Please clarify.* The HHRA has been revised accordingly but will likely need to be revised per Comment #20. See Comment #6 above regarding the need for transparency and clarity.

***Response:** The text revisions referenced in the above comment have been accepted in the revised document.*

[Note: comments 40 through 54 pertain to Section 9, which evaluates potential impacts to groundwater. Based on discussions with NDEP, BRC has performed additional leachate modeling and this section has been broadly revised. BRC's response to these comments is combined in a single response provided after Comment 54.]

40. *Section 9.1, page 9-2, 2nd paragraph on page, BRC states "Input parameters for this data file include temperature, cloud cover, relative humidity, precipitation, and albedo, which relates to the fraction of light or electromagnetic radiation reflected by a surface. Evapotranspiration is calculated by the model based on the first four of these parameters. Please note that the evapotranspiration calculation includes albedo and does not include precipitation. Please clarify this statement.* Awaiting leachate modeling revision by ERM.

Response: *The text has been revised in Section 9 in response to this comment.*

41. *Section 9.1, page 9-2, last paragraph on page. Although the soil physical property data are provided in Appendix J, Table J-2, the supporting data are not provided to substantiate the values used herein.* Awaiting leachate modeling revision by ERM.

Response: *Reference to the database for the Site, in Appendix B has been added.*

NDEP review: NDEP requests that supporting physical and chemical be provided in Appendix B to substantiate values used to support the modeling.

Review Response: *The physical and chemical parameter data have been added to the report database (included on the disc in Appendix B).*

42. *Section 9.1, page 9-2, last paragraph on page, BRC states "For parameters without measured Site data, default inputs consistent with a sand soil type were used…" Please specify what these parameters are.* Awaiting leachate modeling revision by ERM.

Response: *These parameters have been added to this sentence.*

43. *Section 9.1, table that shows layer thickness and boundary depths, page 9-3, the text indicates that the first three layers were divided into ten individual one foot thick sub-layers while the last layer was divided into ten individual one and a half foot thick sub-layers. However, Table J-5 in Appendix J indicates that only the first two layers were divided into one-foot thick sub-layers. Please clarify.* Awaiting leachate modeling revision by ERM.

Response: *Because there were no chemical inputs into the layers 3 and 4, the sub-layers are not shown on Table J-5.*

44. *Section 9.1, page 9-3, 4th paragraph on page, BRC states "The depth to groundwater has been observed to vary from 45 to 70 feet bgs in recent (July-August 2009) sampling. The shallowest depth to groundwater in the vicinity of the Site was 49 feet bgs. Therefore, groundwater was conservatively assumed to be at a depth of 45 feet bgs." This may or may not be conservative depending on what the historical trends look like. Please clarify.* Awaiting leachate modeling revision by ERM.

Response: *The following has been added to this sentence: (given known depths to groundwater for the Site).*

NDEP review: NDEP requests that modeling simulations performed by Daniel B. Stephens and Associates for the post development scenario be specifically referenced and the text should be revised to indicate whether modeling simulation indicate whether depth to water for the Mohawk Sub-Area is expected to remain at 45 feet.

Review Response: *Groundwater modeling conducted by DBS&A using conservative post-development assumptions indicates that post-development groundwater depths for the majority of the Mohawk site would be 45 feet or greater. However, BRC also notes that based on the leachate modeling conducted, BRC determined that compounds fall into two classes - those (such as nitrate) that leach out and those (such as metals) that do not, regardless of site conditions and depth to groundwater. BRC further reiterates that the subject of impacts to groundwater will be addresses comprehensively in the parallel RAS being developed for Eastside groundwater. BRC believes that this is the proper forum for addressing groundwater impacts.*

45. *Section 9.3, page 9-4, last line on page. Please specify the units for rainfall. For example, in Appendix J, Table J-1 the units for this number is cm/month.* Awaiting leachate modeling revision by ERM.

Response: *Rainfall units have been added to the text.*

46. *Section 9.3, pp. 9-3 and 9-4, last line on page and top of following page, BRC states "The additional amount is more than the estimated additional water, but the additional amount was included because the model applies the increased water amount as rainfall at the surface rather than as a sub-surface source, and as such, the model would overestimate the amount of evapotranspiration." The logic here as it applies to the unsaturated zone modeling appears ambiguous. BRC seems to have used high precipitation numbers because it would increase evapotranspiration, please clarify.* Awaiting leachate modeling revision by ERM.

Response: *The text has been re-written to reflect the three recharge scenarios, as discussed with NDEP and its consultants.*

47. *Section 9-4, page 9-5, 2nd set of bullets, 2nd bullet. This sentence contradicts a statement made on page 9-2, last paragraph as follows: "Averages values of measured site-specific data of soil porosity, density and organic carbon content were used in the model (Table J-2, in Appendix J)." Please clarify which statement is correct.* Awaiting leachate modeling revision by ERM.

Response: *This bullet has been revised.*

48. *Section 9.5, page 9-5, 1st sentence of section. Data in Appendix J, Tables J-7 and J-8 do not match report Table 26. Please clarify.* Awaiting leachate modeling revision by ERM.

Response: *The tables have been revised and now match.*

49. *Section 9.3, last paragraph, 2nd sentence, page 9-5, please include a formal reference for the monthly rainfall value of 5.663.* Awaiting leachate modeling revision by ERM.

> ***Response:*** *The text has been re-written to reflect the three recharge scenarios, as discussed with NDEP and its consultants.*

50. *Section 9.5, 1st sentence, page 9-6, the results presented in Tables J-7 and J-8 in Appendix J do not match up with the results presented in Table 26. Please clarify.* Awaiting leachate modeling revision by ERM.

> ***Response:*** *Reference to the DBS&A report has been incorporated for rainfall and recharge rates.*

51. *Section 9.5, page 9-6, 1st full paragraph, BRC states "Therefore, it is likely that attenuation of acetaldehyde and formaldehyde in the soil column is occurring, which is not being accounted for by the model." This conclusion does not logically follow the model runs as discussed above. There are a number of possible explanations and cannot be uniquely attributed to attenuation. Please clarify.* Awaiting leachate modeling revision by ERM.

> ***Response:*** *This conclusion is based on what the results of the model predict, versus what is actually observed in groundwater. If the model were accurately predicting levels of acetaldehyde and formaldehyde in groundwater, then observed levels would be much higher than they are. Therefore, the model is not accounting for all processes that may be occurring in the vadose zone for these (and other) compounds.*

52. *Section 9.5, page 9-6, 1st full paragraph, BRC states "As such, the model is considered overly conservative and residual levels of all organic COPCs in Site soils should not pose an unacceptable risk to groundwater quality." This conclusion does not logically follow the model runs as discussed above. Furthermore, it involves the assumption that acetaldehyde and formaldehyde are representative of all organic COPCs without providing explanation and justification. Please clarify.* Awaiting leachate modeling revision by ERM.

> ***Response:*** *This conclusion is based on the results of all the organic COPCs, not just acetaldehyde and formaldehyde as depicted in the model results in Table J-7.*

53. *Section 9.5, page 9-6, last paragraph on page. The text discusses "low adsorption coefficients" and the effects on the models results. There is no mention of the K_d values used and specific effects on the model results. Please clarify.* Awaiting leachate modeling revision by ERM.

> ***Response:*** *The text has been re-written regarding this issue.*

54. *Section 9.5, page 9-6, last paragraph on page. A number of questions and concerns arise from the following sentence. "Given the relative low levels of these constituents measured in Site soils (for example, the maximum measured perchlorate concentration in soil is 5.58 mg/kg, with an average of 0.5 mg/kg), the presence of multiple other sources in the area, the results are for pore water concentrations and do not take into account dilution in groundwater, the model is considered overly conservative and residual levels of all inorganic COPCs in Site soils should not pose an unacceptable risk to groundwater quality."*
    a. *Please discuss to what degree the average is effected by non-detects.*
    b. *BRC also states "…the presence of multiple other sources in the area…" This statement has nothing to do with the unsaturated zone modeling for the Mohawk Sub-Area, and thus, should be removed from the text.*
    c. *BRC also states "…the results are for pore water concentrations and do not take into account dilution in groundwater …" The Summers model (NDEP Guidance on Further Evaluation of Leaching to Groundwater) could be used to calculate a resulting groundwater concentration. Please consider this in the revised Deliverable.*
    d. *BRC states "…all inorganic COPCs in Site soils should not pose an unacceptable risk to groundwater quality." It appears, as before, that in this case perchlorate was used as a surrogate for all inorganic analytes without providing explanation and justification. Please clarify.*

    Awaiting leachate modeling revision by ERM.

Response: *The text has been re-written regarding this issue.*

55. *Section 10, there is no discussion of asbestos, please clarify.* As there is commonly an issue associated with non-detects with asbestos (in particular amphibole fiber counts), it is important to include text that states that an adequate number of samples has been collected. A few sentences have been added in Section 10 to address this issue.

Response: *The text revisions referenced in the above comment have been accepted in the revised document.*

56. *Figures 2, 5, 8, and 9. Please add a north arrow to each of these figures for reference purposes. This comment has been made in previous reviews of BRC Deliverables.* **The HHRA has not been revised per this comment and BRC should make this change to the HHRA. See Comment #6 above regarding the need for transparency and clarity.**

Response: *Where it was not previously included, a north arrow has been added to all of the figures in the revised report.*

57. *Figure 5, it appears that the orange circles (random sample locations) only appear 17 times in this figure, not 18 as indicated. Please note that the total number of sample locations also includes MC1-BA36 in the parentheses. For biased sample locations with flux, it appears that*

only 18 are presented in this figure, not 20 as indicated in the legend. Please clarify **The HHRA has not been revised per this comment and BRC should make this change to the HHRA. See Comment #6 above regarding the need for transparency and clarity.**

Response: *The legend of Figure 5 has been revised to reflect the corrected tallies of sample locations of each type.*

58. *Figures 6, 7, 10, and 11, please change the font color in the figure titles so they are legible. They currently appear in bright yellow, which is difficult to read.* **The HHRA has not been revised per this comment and BRC should make this change to the HHRA. See Comment #6 above regarding the need for transparency and clarity.**

Response: *This appears to be a printer problem. The hardcopies have been reviewed for correct printing.*

59. *Figure 12, Footnote 1, the footnote does not expand on what is done regarding off-site surface water discharge to the Las Vegas Wash and Lake Mead. The Deliverable should provide further detail or refer to another document that addresses this concern (i.e. the Phase 3 Settlement Agreement).* **Figure 12, Footnote 1 states "Potentially complete exposure pathway following discharge to Las Vegas Wash and Lake Mead." This should be revised to state "Potentially complete exposure pathway following discharge to Las Vegas Wash and Lake Mead. However, the Las Vegas Wash and Lake Mead are not subject to the Phase 3 Settlement Agreement and Administrative Order on Consent (Settlement Agreement). If these issues are found to be of significance NDEP and BRC will address them under separate cover."**

Response: *Footnote 1 of Figure 12 has been revised as noted in NDEP's comment.*

60. *Table 4, the NDEP BCL of 0.222 mg/kg should be used for PCB 105, PCB 114, etc.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *It is not appropriate to use the Aroclor BCL for PCB congeners; these are included in the TCDD TEQs, which is the appropriate location for these comparisons (comparing to the Aroclor BCLs would in essence be 'double-counting' these analytes), BRC has expanded the text (Section 3.5) to discuss this issue, and has removed the PCB congener BCLs from Table 4.*

NDEP Review: NDEP agrees that use of a separate BCL for co-planar PCBs is not warranted. NDEP comment should have indicated that NDEP was unable to verify that the co-planar PCBs were included in the dioxin TEQ calculation as there is no spreadsheet or table that provides this information. Please provide this documentation in final version of report.

Review Response: *The TCDD TEQ calculations have been included as a separate worksheet in the report database (included on the disc in Appendix B).*

61. *Table 10; Please define or reference what "long" refers to in this table in a footnote. Please also define the size of "protocol structures" in the same or separate footnote for clarity.*
Table 10 has been updated to include the definition of "protocol structures" as being longer than 10 um and thinner than 0.4 um. Long structures were also indicated to be > 10 um.

Response: *The revisions to Table 10 that are referenced in the above comment have been accepted in the revised document.*

62. *Table 12; Please change the following parameters to be consistent with what is presented in Section 9 of the Closure Plan*

F(x) = 0.194
Under "Air Dispersion Factor for Area Source"
A = 13.3093
B = 19.8387
C = 230.1652
The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The revisions to Table 12 that are referenced in the above comment have been accepted in the revised document.*

63. *Table 13; please change the title of this table to "Dust model and PEF for construction worker scenario". Please also include the correct footnote and reference for the parameter "sum grading kilometers traveled". Footnote 7 requires a formal reference to "vicinity investigations". Footnotes 8 and 20 both require a reference to a specific section in the text*

Also, please verify this table with parameter values presented in Section 9 of the Closure Plan. Specifically, please change the following parameters:
F(x) = 0.194
Under "Subchronic Dispersion Factor for Area Source"
A = 2.4528
B = 17.5660
C = 189.0426
Under "Subchronic Dispersion Factor for road segment"
A = 12.9351
B = 5.7383
C = 71.7711
The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

***Response:** The revisions to Table 13 that are referenced in the above comment have been accepted in the revised document.*

64. *Tables 17 and 18, toxicity criteria values for a risk assessment should not be referenced to the NDEP's BCL guidance, as stated in the note to Tables 17 and 18. This note is contradictory insofar as the tables themselves cite USEPA 2010 (IRIS database) for many values. Section 6.3.1 discusses the hierarchy of toxicity criteria references used in the risk assessment. Current toxicity criteria must be researched and referenced for each risk assessment according to this hierarchy. All references, including USEPA 2010 and USEPA 1997 should be defined in the table footnotes.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

***Response:** The revisions to Tables 19 and 20 that are referenced in the above comment have been accepted in the revised document.*

65. *Table 25, page 2, first box, last line, BRC states "There is a low probability that all….occur at the point of maximum chemical concentration." The maximum concentration is not used for each of the soil EPCs. This statement should be revised accordingly. In addition, the first box under "Toxicological Data" is incorrect as it discusses the use of sub-chronic RfDs. No sub-chronic RfDs were used in the assessment and thus this should be revised accordingly. Please thoroughly revisit this table to ensure that it is site-specific.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

***Response:** The revisions to Table 27 that are referenced in the above comment have been accepted in the revised document.*

66. *Appendix A, response-to-comments (RTCs), NDEP provides the following comments:*

A. *RTC 9.a, the BRC response states that they performed a document comparison check between the RLSO and clean hard copy. However, there are cases where the two documents do not match. This does not affect the overall conclusions of the report, but is of concern as the reviewers focus on the RLSO. Additionally, this discrepancy slows the review process as the two documents must be more carefully compared. Please ensure that the RLSO document matches the final version of the report for proper documentation for the review record.* No changes were made to the HHRA in response to this comment. BRC should ensure that all future deliverables are correctly redlined and comments annotated.

***Response:** BRC will ensure that all future deliverables are correctly redlined and comments annotated.*

B. *RTC 9.d, surface flux results should be included in the results table in the executive summary. Also, given that asbestos results are the only ones presented as a range, please add a footnote that indicates the asbestos risk estimate ranges correspond to chrysotile and* *amphibole asbestos.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The revisions to Executive Summary that are referenced in the above comment have been accepted in the revised document.*

C. *RTC 9.f, this response does not address the issue of whether the back-up to the statistical analyses have been provided. Please clarify.* The HHRA has been revised accordingly. **However, there are other issues that need to be addressed with the approach to using the flux chamber data in general, and for radon in particular. The radon risk results that would follow from the data presented in the Appendix D tables and the equations described in the main text for indoor air concentrations, are much lower than indoor air background radon levels. This is because of issues in how the analytical laboratory interpreted the samples, and the use of the indoor air equation described in the Closure Plan and SOP-16. However, for other reasons (depth to groundwater and radionuclides in soil at background concentrations) there is reason to believe that radon concentrations are not greater than background at this site. Appendix D should be revised to remove all of the radon discussion to avoid confusion between this approach and the conclusion based on soil concentrations of other radionuclides that radon is at background levels.**

Response: *Appendix D has been revised to remove all of the radon discussion.*

D. *RTC 9.j and Table 16, the cancer and non-cancer inhalation fugitive dust for maintenance workers could not be verified as the equations in the Tables spreadsheet are linked to external spreadsheets not included on the CD in Appendix H. Please provide the additional spreadsheets so that the calculations may be verified* No changes were made to the spreadsheets. BRC should ensure that all future deliverables include live spreadsheets so that a full QC may be conducted. See Comment #6 above regarding the need for transparency and clarity.

Response: *All recent BRC deliverables to NDEP, including the Mohawk Closure Report, have contained the live spreadsheets.*

E. *RTC 9.r, this issue has still not been satisfactorily addressed. While it is noted that additional language has been added to the Uncertainty Section, the report is still deficient with respect to discussion of each sample point that is outside of laboratory QC limits. This is specifically required as outlined in the NDEP Supplemental Data Usability guidance (NDEP, 2008). The impacts of these issues for each sample should also be fully discussed in the Uncertainty Section.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The revisions to Section 7 (Uncertainty Analysis) that are referenced in the above comment have been accepted in the revised document.*

F. *RTC 9.s, as has been stated in previous NDEP comments, the Deliverable does not identify any toxicological surrogates for chemicals lacking toxicity criteria. The Closure Plan (see excerpt below) specifically states that potential toxicological surrogates should be* *identified for detected chemicals that have not been assigned toxicity criteria (for the non-cancer endpoint). Please note that, for purposes of BCL development, NDEP is in the process of identifying toxicological surrogates for TO-15 analytes that do not have toxicity criteria. Also, please note that 2-hexanone (methyl n-butyl ketone) does have an inhalation toxicity criterion, as indicated in Table 17.*

i. *From the BRC Closure Plan "Availability of Toxicity Criteria – Some chemicals have not been assigned toxicity criteria (i.e., cancer slope factor [CSF] or reference dose [RfD]). Prior to eliminating such chemicals, structure-activity relationship (SAR) analysis and applicability of surrogate toxicity values will be considered."*

ii. *The NDEP notes that 2-hexanone (methyl n-butyl ketone) was added to the risk calculations but six other VOCs that were detected in the flux chamber samples were not. The NDEP has conducted a screening evaluation of the potential for those six VOCs to impact the hazard index (HI) and have determined that they do not materially impact the HI estimates. However, all future risk assessments should make every attempt to identify suitable toxicological surrogates for chemicals lacking toxicity criteria that are detected.*

(i. and ii.) The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The revisions to the report that are referenced in the above comment have been accepted in the revised document.*

G. *RTC 9.u, the total residential risk of $2x10^{-6}$ is incorrect. In a review of Appendix H calculations it was noticed that there is an error in the inhalation pathway for indoor air (see Table 15). The averaging time for cancer did not include "70 years" in the equation cell (the calculation of the indoor inhalation exposure factor). It is also worth noting that the outdoor soil-dust inhalation non-cancer and cancer exposure factors do not include the exposure time (see Table 15). These calculations should be revised to reflect the correct total risk for residential exposures and all associated tables should be revised accordingly. Please also note that for the commercial worker (Table 16), the indoor inhalation exposure factor for dust is not presented in the table. Please revise accordingly. Also, if the final incremental lifetime cancer risk (ILCR) reported in the current Deliverable exceeds 1E-06 then the 3rd bullet on RLSO p. 11-1 should be deleted.* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *NDEP made changes to calculations in Table 15 for the inhalation of volatiles from soil. BRC believes there is an error. NDEP revised the calculation of the summary intake factor to be 350 day/yr x 6 years / 52560 hours. BRC believes this calculation is missing the outdoor exposure time (2 hrs). Without this the calculation is not in the correct units.*

H. *RTC 9.v, Figure 9 still only shows 18 biased flux sample locations. MC1-J03 and MC1-J06 do not have "yellow" dots. It is understood based on footnote in Table 1 what happened to these samples. It is recommended that these samples be identified as such to clarify the actual number of flux sample locations. The same footnote from Table 1 can be* *placed on the figure to clarify the sample number* **The HHRA has not been revised per this comment and BRC should make this change to the HHRA. See Comment #6 above regarding the need for transparency and clarity.**

Response: *As noted in the response to Comment 57, the legend of Figure 11 has been revised to reflect the corrected tallies of sample locations of each type.*

I. *RTC 9.x, given that months January, May, June, July, and November are averaged together for dry road moisture, it should be referenced as such. Please change "annual average" to "average of months January, May, June, July, and November". A true annual average would include all months of a given year. Please change the text in Section 6.1.3.* Upon re-review, the original text is considered adequate and no changes have been made to the HHRA.

67. Appendix D, NDEP provides the following comments:

A. *A spot check of the Mohawk SIM results (Schmidt Table 6) did not agree in all cases with the maximum values listed in Deliverable Table 6. In addition, the frequency of detection is not consistent between the Schmidt report and the Deliverable. These discrepancies should be explained* **The HHRA has not been revised per this comment and BRC should make this change to the HHRA. See Comment #6 above regarding the need for transparency and clarity. Please ensure consistency for all future reports.**

Response: *Dr. Schmidt prepares his report prior to the data being validated; thus the discrepancy. This has been pointed out in the report.*

I. *General comments, Appendix D, this Appendix is problematic because of the inclusion of a radon study that has not been approved by NDEP. Consequently, this Appendix has not been approved by NDEP. NDEP will soon complete a radon white paper that addresses the radon issues raised by the report. It should be made very clear that the relevant results in this Appendix pertain only to VOCs.* No action needed at this time pending NDEP's determination of radon methodology.

Response: *As previously noted, Appendix D has been revised to remove all of the radon discussion.*

68. Appendix J, NDEP provides the following comments:

a. *Table J-1 and J-6, NDEP provides the following comments:*
   I. *Table J-1 – if column G (Total Precipitation per Month) is summed, the annual precipitation is 10.64 cm/yr (4.19 in/yr). These numbers appear reasonable.*
   II. *Table J-1 – if column K (Enhanced Recharge Scenario Total Precipitation per Month) is summed, the annual recharge is 67.96 cm/yr (26.76 in/yr).*
   III. *Table J-6 – columns B and C list "Enhanced Recharge Rate at 8.762 in/yr. The latter value does not agree with the annual rate listed in Table J-1, column K.*

IV. Please clarify the discrepancy between Tables J-1 and J-6.

b. Tables J-2, J-4, and J-6. There is no supporting documentation provided for site specific data to substantiate the values used herein. Please provide or cite the appropriate documentation.

c. Table J-2. Please provide documentation that the site specific average value does not include samples from contaminated areas.

d. Table J-2. Cation exchange capacity has been measured at various locations around the BMI Industrial Complex, these numbers could be used to validate the model default and/or replace the model default value. Please consider this in the revised Deliverable.

e. Table J-4. The soil pH value (9) appears a bit high, the BMI Industrial Complex site-wide median value is approximately 8.3.

Ai. Awaiting leachate modeling revision by ERM.
Aii. Awaiting leachate modeling revision by ERM.
Aiii. Awaiting leachate modeling revision by ERM.
Aiv. Awaiting leachate modeling revision by ERM.
B. Awaiting leachate modeling revision by ERM.
C. Awaiting leachate modeling revision by ERM.
D. Awaiting leachate modeling revision by ERM.
E. Awaiting leachate modeling revision by ERM.

Response: *As noted above, BRC has performed additional leachate modeling and Appendix J has been broadly revised. In addition, the Appendix J tables and Table 28 have been reviewed and revised for consistency.*

NDEP Review of Response to Original Comment 68(c): NDEP requests documentation that site specific average value does not include samples from contaminated areas.

Review Response: *The following footnote has been added to Table J-2 (now Table K-2):*

Data from which the values presented in this table and used in the modeling do not include samples collected from contaminated areas.

69. *Electronic copy, BRC Mohawk Sub-Area HHRA-Closure Report_Air Calcs-Resident Spreadsheet, "Tox" tab—cell D2 should have "RfC" rather than "RfD" in it. This applies to all similar spreadsheets* The HHRA has been revised accordingly. See Comment #6 above regarding the need for transparency and clarity.

Response: *The revisions to the spreadsheets that are referenced in the above comment have been accepted in the revised document.*

70. P. ES-1, Executive Summary, 1st paragraph,

Text here states that "[i]f the residual risks do not pose an unacceptable risk to human health and the environment, then an NFAD will be requested from the NDEP to allow development of the Site to proceed."

NDEP clarifies that issuance of and NFAD is a statement of intent by NDEP in accordance with the Phase III AOC to not require further action. Issuance of an NFAD by NDEP is not a prerequisite to or an implicit approval to develop land, nor should it be construed as a statement by NDEP of the suitability of land for development.

NDEP suggests the following text:

"[i]f the residual risks do not pose an unacceptable risk to human health and the environment, then an NFAD will be requested form the NDEP. Pending issuance of an NFAD by NDEP, development of the site is expected to proceed in a manner consistent with Environmental Covenants that attach to the property."

Review Response: *The suggested text has been incorporated into the report.*

71. P. ES-4, Human Health Risk Assessment, Summary Tables

Please review Footnote 1, all tables to verify that target organ-specific and total HIs presented match what is included in Section 8.0 and Tables 22, 23 and 25.

Executive Summary Results Table, Risk Worksheets in Appendix H, Tables Spreadsheet (Tables 23(a)-(c) to 25(a)-(c)), and Section 8.0. The Executive Summary Table, Risk Worksheets in Appendix H (by receptor), and Section 8.0 do not match up entirely with the results reported in the Tables Spreadsheet for Tables 23(a)-(c) to 25(a)-(c).

In addition to this comment, the labeling of the table numbers in the tabs in the risk spreadsheets in Appendix H do not match up with the table numbers in the overall Tables Spreadsheet. For example, the risk spreadsheets in Appendix H indicate that the commercial receptor corresponds to Tables 22(a)-(c), when in fact they should correspond to Tables 24(a)-(c) as indicated in the overall Tables Spreadsheet, text in Section 8.0, and the Executive Summary Table. Please clarify.

Review Response: *The risk estimate values have been double-checked to ensure consistency between the text and tables.*

72. P. ES-4, Human Health Risk Assessment

Text states "Indoor air exposures are evaluated on a sample by sample basis…"

In addition to this evaluation, BRC should make reference to vapor intrusion technical memo in preparation. See NDEP Review of original comment 34 above.

Review Response: *See response to comment 34 above. In addition, additional text has been added to this portion of the Executive Summary*

73. P. 1-1, Introduction

Text states "BRC recognizes that the following conditions will likely be necessary as part of the NFAD"

Prior to issuance of an NFAD, it is NDEP's expectation that these conditions will be incorporated into an Environmental Covenant.

NDEP suggests the following text:

"BRC recognizes that the following conditions will be included in an Environmental Covenant as a condition to receiving an NFAD from NDEP."

Review Response: *The suggested text has been incorporated into the report.*

74. P. 1-2, Purpose of Risk Assessment

Text here states "The purpose of the HHRA is to evaluate the potential for adverse human health impacts that may occur as a result of potential exposures to residual concentrations of chemicals in soil, groundwater, and air following remediation, and to assess whether any additional remedial actions are necessary in order to obtain an NFAD from the NDEP to allow development of the Site to proceed."

Please revise text to be consistent with comment 70 above.

Review Response: *The suggested text has been incorporated into the report.*

75. P. 3-3, Section 3.1 Initial Confirmation Sampling, Footnote 12

Footnote 12 text states "The final grading plan will be provided to NDEP when available. Differences between the current grading plan and the final grading plan will be identified and possible impacts on the HHRA results discussed with NDEP

NDEP received an informal submittal of the grading plan from BRC on December 9, 2010. Prior to issuance of an NFA, NDEP will need to verify that this grading plan is referenced appropriately in a recorded Environmental Covenant document and that this is the grading plan was used in the subject HHRA. Where a different grading plan was used in an HHRA, results will need to be evaluated.

Review Response: *No changes made to the report based on discussions with NDEP on January 3, 2011.*

76. P. 3-5 and Table 1

It is unclear from the number of samples reported in the text how 104 samples adds up from 42 total fill samples, 43 total surface samples, and 38 total subsurface samples. The sentence on page

3-5 that presents the total as 104 samples alludes to the fact that it is composed of these sample numbers, but in fact these sample numbers add up to 123 samples. Please clarify.

***Review Response:** See response to comment 11 above.*

77. P. 5-4, Section 5.1, Evaluation of Concentrations Relative to Background Conditions

NDEP requests additional specific rationale supporting exclusion of Pt, Se, and Li as COPCs. Use of comparison to BCLs or other numbers appears appropriate.

***Review Response:** The following text have been added for lithium and selenium: "detection limit less than residential BCL" and the following for platinum: "no BCL established"*

78. Section 9.3; p 9-5; last paragraph on page.

Text states "For SESOIL, the only modification was to increase the monthly rainfall to 1.522 cm/month for the normal post development scenario, and 5.42 cm/month for the enhanced recharge scenario." The two highlighted precipitation values do not agree with Table J-1. Please review Table J-1 and text and correct as appropriate.

***Review Response:** The text has been revised to be consistent with the table.*

79. Section 9.4; p 9-6; 3rd bullet. "…Lack of an appropriate model validation opportunity." NDEP guidance on unsaturated zone modeling provides for comparison to SPLP testing as a check on model results. No response required for this document; NDEP provides this comment for future reference.

***Review Response:** No changes made to the report based on discussions with NDEP on January 3, 2011.*

80. Section 9.5; p 9-7 first full paragraph; p 9-8 last paragraph. If the reference here of expecting COPCs in groundwater is meant to apply to the base case for recharge (0.08 inches/year), BRC is referred to the guidance for soil leaching (NDEP, 2010). Of note in that guidance is that the base case precipitation was based on recharge studies in adjacent basins and was not site specific to the BMI Industrial Complex. Recent laboratory column testing by Tronox suggests the recharge could be less than 0.08 in/year and could be nil. In this scenario one would not expect to see these chemicals leaching under the base case, but would expect to see them leach under the post development and enhanced recharge scenarios. Using the nil recharge argument, then the conclusions of the last paragraph on page 9-8 would not logically follow and one might expect soil leaching of certain COPCs due to development. Please include this concept in the Section 9.5 conclusions. Reference: NDEP, 2010. Soil to Groundwater Leaching Guidance. BMI Plant Sites and Common Areas Projects, Henderson, Nevada.

***Review Response:** BRC understands that, based on recent studies conducted elsewhere in the BMI Complex, that the base case recharge rate of 0.08 inches/year may be conservative – i.e., it* *could be less than 0.08 inches/year. Nonetheless, BRC believes that its conclusions relating to leachate modeling, as presented, are still valid, especially considering the conservatism inherent in the potential recharge rates assumed due to development activities (such as leaking pipes, etc.) are taken into account. BRC further notes that groundwater impacts for the entire Eastside are the subject of a separate Remedial Alternative Study (RAS) wherein all of these issues will be addressed.*

81. Section 9.5; p 9-8; top of page. Please provide Summers model calculations to support the conclusion of little affect via leachate mixing with groundwater.

Review Response: *No changes made to the report based on discussions with NDEP on January 3, 2011.*

82. Tables 28 and J-7:

a. Please provide note for "--".
b. Please provide a note for "NA"
c. In notes please make reference to "NDEP and Consultants" do not use individual's names.

Review Response: *The tables have been revised accordingly.*

APPENDIX A-2

Response to NDEP Comments Dated April 20, 2010 on the Human Health Risk Assessment and Closure Report for the Mohawk Sub-Area, BMI Common Areas (Eastside), Clark County, Nevada, Interim Deliverable Dated March 2010

1. General comment, it is noted that the figures were not included with the Deliverable, and at least one figure (Figure 9) was revised. We also note that Appendix A is the only appendix that was included in the Deliverable. Therefore, NDEP was unable to address specific comments associated with Appendices B through J. Page numbers called out below are for the redline/strikeout (RLSO) version of the document. Due to these deficiencies, the NDEP's comments should not be considered to be comprehensive.

Response: *As noted previously, only those items that changed significantly due to the initial set of comments were included in the previous interim deliverable. Item not included, for example, figures and several of the appendices, either did not change, or were to be changed exactly as suggested by NDEP in their initial comments. This deliverable is the revised report in its entirety.*

2. General comment, BRC should provide an annotated response to comments (RTC) as an Appendix to the revised version of the Deliverable. The Deliverable should be provided as per Attachments A and B of the NDEP's April 5, 2010 letter and to the following NDEP consultants in the format described below:

Consultant	Format
Paul Hackenberry, Hackenberry Associates	Electronic hackenberry@sbcglobal.net
Joanne Otani 2160 Santa Cruz Avenue # 20 Menlo Park, CA 94025	Hardcopy and Electronic jotanifehling@yahoo.com
Teri Copeland 5737 Kanan Rd. #182 Agoura Hills, CA 91301	Hardcopy and Electronic terilcopeland@yahoo.com
Paul Black, Neptune and Company, Inc. 8550 West 14th Street, Suite 100, Lakewood, CO 80215	Hardcopy and Electronic pblack@neptuneinc.org

Response: *As noted above, and as agreed to with NDEP, the previous submittal was an interim deliverable focusing on text and tables, for which the majority of the initial comments covered. The previous interim deliverable included an annotated response to comments (Appendix A) as well as a redline/strikeout version of the revised text. This deliverable is the revised report in its entirety.*

3. Executive Summary and Section 8, please provide only one ILCR for each receptor, based on the maximum flux chamber result.

***Response:** This change has been made to the document.*

4. Page ES-2, results table and elsewhere in the Deliverable. The asbestos risks that are presented in the table in the executive summary and Section 8.0 are incorrect due to errors in the way the laboratory worksheets were interpreted in preparation of the data used to generate the asbestos risk estimates. Please revise these calculations, tables, and the accompanying text. We understand that this issue is being addressed separately at the moment, but the revised asbestos data will need to be included in the Mohawk risk assessment.

***Response:** BRC recently received the reviewed asbestos results and has incorporate these results into this revision of the report. It should be noted that the results of the review do not materially affect the conclusions of the risk assessment.*

5. Section 1.0, page 1-2, first full paragraph, Appendix B is referenced as containing the RLSO version of the report, an electronic version of the entire report, as well as original format files of all text, tables, modeling, and risk calculations, but the Table of Contents identifies Appendix B as "Mohawk Sub-Area Investigation Data Tables (Database on CD). Please address this discrepancy and please provide the electronic copy containing all components of the Deliverable (whether changed or not) in the next submittal.

***Response:** Changes have been made to clarify that there is a single CD included in the report, in Appendix B, which contains all electronic data files. All references to electronic files, for example, the risk calculations, are now referenced as follows "…in Appendix H (included on the report CD in Appendix B)."*

6. Section 4.1.10, page 4-12; 1st paragraph, 2nd sentence, please change the section reference to Section 4.5.2. Section references in the text should be double checked for consistency.

***Response:** The correct reference has been incorporated.*

7. Section 6.1, please provide rationale for assuming that data populations for soil are similar across the site and therefore establishing only one (site-wide) exposure area. Please edit the text (e.g., top of pg. 6-4, which references "each exposure area") to be clear that that soil EPCs were characterized for only one site-wide exposure area. Please also acknowledge in this section that EPCs for indoor air, based on flux chamber data, are calculated for each sampling location, and that the maximum (risk) result is used to accommodate individual potential building footprints.

***Response:** Language has been provided, as suggested by NDEP in previous submittals, in Section 6.1.1, and is consistent with the BRC Closure Plan. Surface flux data are discussed in Section 6.1.2, including a discussion regarding evaluating exposures on a sample by sample basis.*

8. Section 8.0, please identify each of the specific flux chamber samples for which ILCR exceeds 1 x 10^{-6}.

Response: *None of the specific flux chamber samples have an ILCR greater than 1 x 10^{-6} (see Tables 20 through 23, and Appendix H).*

9. Appendix A, NDEP provides the following comments:
   a. General comment, NDEP assumed that all edits made to the former version of the Deliverable are documented in the hard copy of the red-line strike-out (RLSO) file. However, a comparison of the hard copy of the RLSO and the electronic file for the RLSO indicates this is not the case. All edits must be accurately shown in the RLSO. For future submittals, reference the RLSO version to identify edits and page numbers in the Appendix A Response-to-Comments (RTCs).

Response: *BRC did a document comparison using MS Word's tool, comparing the revised document to the original document. This identified all changes to the document. The hard copy was made from a PDF of the electronic copy, therefore, we are unclear what differences may exist between the two.*

   b. RTC 2, NDEP could not confirm that the appendices list tables in the front of each appendix as Appendices B through J were not provided in the Deliverable. In addition, please note that Appendix E appears to have two tables labeled "E-8".

Response: *A page has been added to the front of each of the appendices with tables or figures listing each of the tables (or figures) within that particular appendix.*

   c. RTC 5, for clarification, we suggest the following text inserts (shown in bold below) on page 1-1:
      1. **The NFAD does not pertain to groundwater**. BRC retains…
      2. …current grading plan for the Site have not been evaluated to date. **Accordingly, the NFAD does not pertain to soil below the top 10 feet**.

Response: *These text inserts have been added to the report.*

   d. RTC 10, BRC states that relevant flux chamber data are included in executive summary but the data are not found there.

Response: *This information is provided in the paragraph below the table showing the summary of risk assessment results.*

   e. RTC 11, NDEP was unable to cross check the risk summaries against the risk calculation sheets, as the latter were not provided.

Response: *See response to comment #1 above.*

f. RTC 40, NDEP was unable to cross check the flux chamber data summaries as Appendix D was not provided. In addition, it does not appear that the Deliverable included the back-up to the statistical analyses conducted as described in Table 6 for the flux chamber data.

Response: *See response to comment #1 above.*

g. RTC 41,an updated Figure 2 was not included with this Deliverable and therefore could not be evaluated.

Response: *See response to comment #1 above.*

h. RTC 50, NDEP's comment was not addressed with respect to having more discussion on the similarities that exist between the site and background datasets (i.e., describe the dominant lithologies for each dataset and why they are suitable for background comparison). The text from the previous version of the report was simply cut and pasted into a new section (5.1).

Response: *It is incorrect that text was simply cut and pasted into a new section of the report. As noted in the email containing the revised report, because of the nature of the edits, text was moved around which may have made identification of new/revised text difficult in some sections of the report. Text was added on page 5-2 of the report identifying why the background locations were selected and are representative for the site. We are unclear what additional information NDEP requires on this issue.*

i. RTC 79, this issue was not reviewed as Appendix G was not provided.

Response: *See response to comment #1 above.*

j. RTC 81, NDEP was unable to cross check the risk summary tables against the risk calculation sheets, as the latter were not provided.

Response: *See response to comment #1 above.*

k. RTC 83, please note that we were unable to cross check the data in Table 11 with the current calculation sheets, as the appendices were not provided.

Response: *See response to comment #1 above.*

l. RTC 85, NDEP could not verify this response as the risk calculation spreadsheets (Appendix H) were not provided.

Response: *See response to comment #1 above.*

m. RTC 93, NDEP was unable to confirm the risk calculation spreadsheet modifications that are referenced in the response.

Response: *See response to comment #1 above.*

n. RTC 94, on page 6-10, the equation for calculating EC still has in the denominator "365 d/yr". Please delete this from the equation since the "AT" is now in units of hours and no longer requires this conversion factor.

Response: *This only true for the redline/strikeout version of the text, because of the nature of MS Word's methodology for identifying changes to the report. The main version of the text is correct.*

o. RTC 95, BRC indicates that the units for the cancer slope factor (CSF), reference dose (RfD), and reference concentration (RfC) are provided in Section 6.3. However, only the units of the inhalation unit risk (IUR) are provided. The other toxicity criteria (CSF, RfD, RfC) units are not defined.

Response: *These units are now defined in Section 6.3. It should be noted that these units are also shown in Section 6.4.*

p. RTC 102, Section 6.4.2 had additional text added that describes the target organ approach for HI (when performed) and how target organs were identified. However, Table 19 is confusing. The table cites ORNL 1991, 1992, 1993, or 1995 but the footnote and reference section has ORNL 2010 (please clarify). The USEPA 2010 citation is IRIS.

Response: *Table 19 has been revised to be consistent with the text.*

q. RTC 104, from a review of the text, this requested edit was not addressed in the document (e.g., Section 6.3, 6.3.2, or 6.4.2).

Response: *This change has been made throughout the document.*

r. RTC 112, this comment was not fully addressed. Please add a discussion regarding the data that had low MS/MSD but were not rejected, including an identification of each data point affected in this manner and rationale for usability.

Response: *Agreed. A discussion was added to the uncertainty section regarding this issue; however, individual sample points were not identified. A reference to where the specific sample locations are identified has been added.*

s. RTC 119, as per the *Closure Plan* (see excerpt below), potential toxicological surrogates should be identified for detected chemicals that have not been assigned toxicity criteria (for the non-cancer endpoint). Please note that, for purposes of BCL development, NDEP is in the process of identifying toxicological surrogates for TO-15 analytes that do not have toxicity criteria. Also, please note that 2-hexanone (methyl n-butyl ketone) does have an inhalation toxicity criterion, as indicated in Table 17. From the BRC *Closure Plan* "Availability of Toxicity Criteria – Some chemicals have not been assigned toxicity criteria (i.e., cancer slope factor [CSF] or reference dose [RfD]). Prior to eliminating such chemicals, structure-activity relationship (SAR) analysis and applicability of surrogate toxicity values will be considered."

Response: *Agreed. Generally, BRC maintains consistency with toxicological criteria from NDEP's BCLs.*

t. RTC 120, 1,2-dibromo-3cholorpropane is not discussed in the uncertainty section. Please clarify.

Response: *1,2-Dibromo-3-chloropropane is discussed in the uncertainty analysis, on page 7-3 of the RLSO. It is abbreviated as DBCP (as called out on page 4-10).*

u. RTC 138, in regard to inserted text, Third bullet – the total risk for the residential receptor is 2×10^{-6} (note that maximum flux results are used as the basis for risk management decisions for residential land use scenarios). This risk exceeds the ILCR risk goal of 1×10^{-6}.

Response: *BRC acknowledges that this is the case.*

v. RTC 140, in RTC 42, it is stated that Table 1 has been revised to include 22 flux sampling locations. However, it appears that the revised Table 1 only has 21 flux sampling locations listed. Please clarify. In addition, we did not have revised figures to confirm that Figure 9 has been revised accordingly.

Response: *A footnote has been added to the table indicating that two of the samples were destroyed by the laboratory, as discussed in the text. This results in 19 actual sample locations, with three field duplicates, for a total of 22 samples.*

w. RTC 147, NDEP requested that the ranges for the ILCRs for volatile inhalation be referenced. It is not apparent from the Tables that this comment has been addressed. Please clarify.

Response: *The following footnote has been added to these tables: "Note that risk estimates for surface flux data were done on a sample-by-sample basis, therefore, risks are presented as a range. See Appendix H for sample-specific risk estimates"*

x. RTC 150(v), NDEP had requested that the value used for dry road moisture be calculated such that it reflects an annual average. BRC recalculated the dry road moisture content by averaging months January, May, June, July, and November, but the basis for this value in place of an annual average was not discussed. Please clarify.

Response: *Further discussion is provided in Section 6.1.3 on this issue.*

y. RTC 152, updated risk calculation spreadsheets (Appendix H) were not provided and therefore could not be verified.

Response: *See response to comment #1 above.*

APPENDIX A-3

Response to NDEP Comments Dated November 23, 2009 on the Human Health Risk Assessment and Closure Report for the Mohawk Sub-Area, BMI Common Areas (Eastside), Clark County, Nevada Dated October 2009

1. General comment, many of the specific comments have been provided in comments to previous Deliverables. It appears that BRC SOP-0 has not been implemented. Please insure that BRC SOP-0 is implemented in all Deliverables to the NDEP. Please note that the comments below should not be considered to be comprehensive due to the deficient nature of the Deliverable.

Response: *BRC makes an effort to incorporate relevant NDEP comments associated with previous Deliverables into each Deliverable that is submitted to NDEP. That said, given the number of prior Deliverables and the associated comments, it is possible that some comments may not have been addressed accordingly in every Deliverable.SOP-0 is implemented in all deliverables submitted to NDEP, as are all other project SOPs that are relevant to the specific tasks associated with a given Deliverable. Per SOP-0, for this particular Deliverable, quality checks have been conducted for figures, tables, calculations, and spreadsheets. The Deliverable was also subjected to a content review, editorial/copy review, and content/style consistency review.*

2. General comment, to facilitate NDEP review, please list the individual tables contained in each appendix.

Response: *In the revised report, a listing of all the tables included in a given Appendix has been inserted into the front of that Appendix.*

3. General comment, please change "will be evaluated" to "was/were evaluated" throughout the document.

Response: *BRC identified one instance of the future tense being used for this verb when past tense was more appropriate (section 7.4.3), and revised the wording to past tense as requested. The report has been reviewed with respect to verb tense. Where the phrasing refers to an action that is standard practice and/or specified in an SOP or guidance document and applies in a general sense to an action that is to be conducted at the Site and elsewhere within the Common Areas, the tense used is present tense. Where the phrasing refers to an action that was conducted for this particular Site/Deliverable, the tense used is past tense.*

4. General comment, although the BRC Closure Plan is in revision, the Closure Plan refers to the Statistical Methodology Report, which indicates that correlation analysis and kriging will be performed. Such deviations from the Closure Plan or any NDEP guidance documents should be documented in this report.

Response: *Agreed. As noted in the Statistical Methodology Report, correlation analyses will be performed, and depending on the results block kriging will be conducted if the data are determined to be correlated. However, as stated in Section 6.1.1 the site data are assumed to be uncorrelated. Therefore, block kriging was not conducted. A footnote has been added to this section on page 6-4 that states "Although the Statistical Methodology Report states that confirmation measurements of each chemical in a given soil layer will be used to compute variograms, as noted in the text above, this was not conducted for the Site, which is a deviation from the Closure Plan methodology."*

5. Executive Summary, page ES-1; 1st paragraph, general, this summary paragraph suggests that a NFAD is being requested for the Mohawk sub-area. However, no acknowledgement is given to the terms of the NFAD. For example, the NFAD will only pertain to the top 10 feet of soil, and does not pertain to groundwater, etc. for all reasons stated in various other NDEP and BRC documents. The domain or the NFAD needs to be made clear. This same comment applies to the first paragraph of the Introduction, because the paragraph is repeated there. As a matter of form, an Executive Summary should summarize rather than repeat.

Response: *The associated discussion in Section 1 has been modified on page 1-1 to refer to the likely terms of the NFAD. Please note that some of the detail originally provided in the Executive Summary has been deleted, in the interest of reducing repetition; accordingly, the nature of the NFAD limitations is not included in the Executive Summary.*

6. Executive Summary, Page ES-1; 1st paragraph, 3rd sentence, in the remainder of the text the term Site is used to describe the Mohawk sub-area. Please change the definition of Eastside in this sentence, so that it is not also referred to as "the Site".

Response: *In response to the prior comment, the text that is the subject of this comment has been deleted from the revised report (within the Executive Summary). The similar wording in Section 1 has been revised in response to this comment. In addition, the Mohawk sub-area has been defined as 'the Site.'*

7. Executive Summary, Page ES-1; 1st paragraph, last sentences, the Site is referred to as a NFAD Property twice. It is not clear what that can mean given that the purpose of this report is to present a case for a NFAD. Please change the terminology so that the Site is referred to consistently as "the Site".

Response: *In response to the prior comment, the text that is the subject of this comment has been deleted from the revised report (within the Executive Summary). The similar wording in Section 1 has been revised in response to this comment.*

8. Executive Summary, Page ES-1; Background, first sentence, presumably, the Site in this first sentence refers to the Mohawk sub-area, although the term has not been defined.

Response: *As noted above in response to comment #6, the text has been revised to define the Mohawk sub-area as the "Site" in the prior paragraph.*

9. Executive Summary, Page ES-2; Human Health Risk Assessment, 1st sentence, please reference the specific (numbered) data review section, or change the sentence so that a reference is not needed.

Response: *Upon further review, BRC has determined that the subject sentence is unnecessary, and has deleted it from the report.*

10. Executive Summary, page ES-2 – Human Health Risk Assessment, the flux chamber data and contribution to the total non-cancer hazard indices and incremental lifetime cancer risks presented in the summary table are not specifically addressed here. Please provide relevant summary information regarding the flux chamber data.

Response: *The Executive Summary has been expanded to include relevant flux chamber data and effects on risk calculations.*

11. Executive Summary, page ES-2 – Human Health Risk Assessment, summary table, for the future on-site resident, the range of risks is listed as 2 x 10-7 to 1 x 10-6. Table 17 lists 2 x 10-7 to 5 x 10-6 as the risk for the residential receptor. Please address this discrepancy. Also, please explain what the ranges are based on (e.g., with and without indoor air?).

Response: *The risk estimates have been updated and corrected. Text has been added on page ES-3 regarding what the range of results represent.*

12. Executive Summary, page ES-3 – Evaluation of Uncertainties, this section should reference Table 22.

Response: *Because tables are numbered in the order of their appearance in the report, and no other tables are referenced in the Executive Summary, and Table 22 (now Table 25) supplements the information provided in the Uncertainty Analysis section, reference to Table 25 at this point in the report seem inappropriate. Therefore, instead reference to Uncertainty Analysis section of the report is provided.*

13. Executive Summary, Page ES-3 – Summary, for completeness and transparency, please summarize the "criteria identified in AOC3".

Response: *The subject text has been revised on page ES-3.*

14. Section 1.1, page 1-2; 1st partial paragraph, 1st full sentence, the sentence refers to potential health risks associated with background conditions, suggesting it can be used to support risk management decisions. However, background risk does not appear to have been presented in this report. Please clarify.

Response: *A footnote has been added providing additional information on the terms incremental, background, and total risks. Clarification has also been provided in the footnote that background risks are only calculated if the incremental/total risks are above* 10^{-5} *to provide context to the risk assessment results. This is generally only true if radionuclide risks are calculated.*

15. Section 1.1, page 1-2; 1st partial paragraph, 2nd full sentence, it is not clear that this is the overall goal of this report, or of this risk assessment. The process for getting here might have followed this path, but the risk assessment is prepared after the mitigation actions have been taken. Please explain further what the purpose of this risk assessment is, and what the process was that led to this point. Also, reference the sampling and analysis plans (SAP(s)) that help explain the chronological order of mitigation and data collection activities at the Site, and that provide some of the framework for the Site work performed.

Response: *The subject text has been revised to more accurately state the purpose of the risk assessment, and to present the chronological order of mitigation and data collection at the Site.*

16. Section 1.1, page 1-2; 2nd paragraph, 1st sentence, it is unclear what is meant by "unrestricted residential uses" when page 5-2 indicates that a deed restriction will be put in place to prevent future users from utilizing the groundwater beneath the Site. Please clarify.

Response: *The word 'unrestricted' has been removed from this sentence.*

17. Section 1.1, Page 1-2; 2nd paragraph, 3rd sentence, please change "...sampling has not occur..." to "...sampling has not occurred...".

Response: *The subject text has been revised as suggested.*

18. Section 1.1, Page 1-2; item 1, last sentence, it is not clear that this is strictly the case. Radionuclide risk at background concentrations can exceed 1 x 10-4 risk, in which case if there is any residual radionuclide risk, the Site risk will exceed this threshold. In the case of Mohawk, radionuclides are at background concentrations, however, this might not be the case at other Sites, in which case, this general language should be considered for modification.

Response: *This language was obtained directly from the approved BRC Closure Plan and has not been changed. The issue of exceeding 1x10-4 and background risks is addressed in the third bullet.*

19. Section 1.1, Page 1-3; paragraph after list, reference should also be made to the NDEP BCLs.

Response: *The text in this section identifies the risk goals and acceptable risk levels for the project. Reference to BCLs is considered inappropriate in this context; other than for dioxins/furans. Additional language, consistent with changes to the BRC Closure Plan language regarding the target risk goal for dioxins/furan, which is the ATSDR screening level and residential BCL of 50 ppt, has been added to the report on page 1-4.*

20. Section 1.2, Page 1-3; 1st paragraph, last sentence, change "in the Section 7" to "in Section 7".

Response: *The subject text has been revised on page 1-5 as suggested (now Section 6).*

21. Section 1.2, Page 1-4; second to last bullet, if ecological risk assessment is not being conducted here, please remove from this list, and note in an appropriate place in the introduction that the scope of this report is human health risk and that ecological risk is not considered and note the reasons.

Response: *The bullet list refers to sections of the BRC Closure Plan, which include ecological risk evaluation procedures (Section 10 of that document). Because elements pertaining to ecological risk assessment are discussed in this report, BRC has elected to retain the reference for completeness.*

22. Section 1.2, page 1-4, footnote, BRC states "the DQO process is presented in the SAP and not repeated here". Please note that the DQO process identified in the SAP should be tied to the data usability and data adequacy evaluations.

Response: *The subject footnote has been revised as noted.*

23. Section 1.3, Page 1-4, it is not clear why the organizations of the sections do not track to the bullets in the previous section.

Response: *As stated in the text, the bullets in the prior section refer to elements of the NDEP-approved BRC Closure Plan, which presents the procedures to be followed to characterize site conditions such that closure can be properly evaluated. To avoid redundancy, this Closure*

Report does not repeat those procedures. Furthermore, several of the BRC Closure Plan sections contain information used to develop the closure procedures and do not warrant repetition in this Report. Several BRC Closure Plan sections (risk assessment, for example) outline multi-step procedures for which more extensive discussion is warranted. This Closure Report is organized in a manner that BRC felt provided logical groupings of information derived from the SAP sampling. If the current organization warrants revision in NDEP's opinion, BRC requests that NDEP provide specific examples of recommended changes.

24. Section 2.1, page 2-1, 2nd sentence, since chloride salts of radionuclides is mentioned, it would be helpful to include an example in the list below.

Response: *The subject text was taken from the BRC Closure Plan. Specific examples were not provided and are not included in this report.*

25. Section 2.3, Page 2-7; last paragraph, 1st sentence, please change "...were composite sampling..." to "...were composite samples...".

Response: *The subject text has been revised as suggested.*

26. Section 3.1, page 3-1, 1st sentence, please change "sampling in the Site" to "sampling at the Site".

Response: *The subject text has been revised as suggested.*

27. Section 3.1, Page 3-1, last sentence, the sentence indicates that the rationale for the biased sampling locations is presented in the Table on the next page. The Table should have a number and title. However, the Table does not provide rationale – it provides a list. Please provide rationale as suggested.

Response: *The biased sample location presentation has been revised to be in the form of a bulleted list, which has been expanded to more clearly provide the rationale for the biased sampling locations.*

28. Section 3.1, pages 3-3 and 3-4, please provide further clarification of sample depths and the data points that comprise the 0-2 foot and 0-10 foot data sets. Please document that, given the uncertainties in the final grading plan, a worst case (or at least reasonable worst case) scenario has been assessed.

Response: *Table 1 provides further information on the classification of each of the sample locations/depths. Text has been added reflecting the different exposure depths evaluated and that a reasonable worst case scenario has been assessed.*

29. Section 3.2, page 3-5, 3rd bullet, please clarify that the USEPA Method 8015B analysis was for glycols and methanol and/or reference Table 2.

Response: *The subject text has been modified as suggested to note that the non-halogenated organics to be analyzed by EPA Method 8015B were glycols and methanol. Table 2 is referenced in the text immediately preceding the bullet list of analyses that were omitted, and applies to all of the bullets; therefore, it was not individually referenced for this subject bullet.*

30. Section 3.2, Page 3-5, last paragraph under bullet, last sentence. Please reword this sentence. Also, please remove the word "the" from the parentheses.

Response: *The subject text has been modified as suggested.*

31. Section 3.3, page 3-6, BRC stated "The original and re-analysis data were not included in subsequent evaluations." Please clarify what this sentence means in terms of use of the data in the health risk assessment (HRA) (i.e., were these data evaluated in the data usability evaluation?).

Response: *The subject sentence has been removed from the report text.*

32. Section 3.3.1, Page 3-6; last paragraph, first sentence, it would be helpful if the Thiessen or Voronoi map for asbestos cleanup is shown on a figure.

Response: *The Thiessen polygons used for the asbestos cleanup are shown on Figures 8 and 9.*

33. Section 3.3.1, Page 3-7; 2nd paragraph, 2nd to last sentence, Chrysotile is not a chemical. Please reword this sentence.

Response: *The subject text has been modified to refer to chrysotile as a "constituent" as opposed to a "chemical."*

34. Section 3.3.1, page 3-7, 3rd full paragraph, it appears that MC1-AV38 and MC1-AY36 are not shown on Figure 8 as stated.

Response: *The subject sentence has been revised to clarify that the two dioxin/furan remediation areas are depicted in Figure 8, but that the reader should refer to Figure 5 for the sample locations associated with them.*

35. Section 3.4, page 3-9, bottom paragraph, please define "exceeding" and non-exceeding".

Response: *The section has been reworded for clarification that the contents of the confirmation dataset are as follows:*

1) SAP sampling data, retaining only the results that were not superseded by subsequent sampling. (Post-scrape analyses associated with follow-up rounds of remediation focused on the analytes triggering that additional remediation, and did not include the full suite analyses of the original analytical program. Therefore, analytical results from the original SAP dataset were retained for all analytes except those that were re-analyzed after additional scraping);

2) Data generated after intermediate sampling and cleanup (retaining only the results that were not superseded by subsequent sampling); and

3) Additional biased and random samples collected for confirmation after completion of remediation activities.

36. Section 3.5, page 3-14; Nickel subsection, 1st sentence, the total number of Site soil samples for nickel is 114. Please change 144 to 114.

Response: *The subject sentence has been revised as noted.*

37. Section 3.5, page 3-16; Other Inorganics subsection, please note that total cyanide has two instances that are greater than the $LBCL_{DAF1}$.

Response: *As presented in Table 4, there are no exceedances of the cyanide $LBCL_{DAF1}$. No changes were made in response to this comment.*

38. Section 3.5, page 3-20; last sentence, please reword this sentence and/or explain further.

Response: *The subject sentence has been expanded and reworded.*

39. Section 3.6, page 3-21, 3rd paragraph, please document that flux chamber samples were analyzed using EPA Method TO-15 (full scan plus SIM for a subset of the analytes).

Response: *The subject paragraph has been revised to clarify that flux chamber samples were analyzed using EPA Method TO-15 (full scan plus SIM for a subset of the analytes).*

40. Section 3.6, page 3-21, 3rd paragraph, please provide a data summary for the flux chamber sample results similar to that provided for soil data. Please also provide the investigator's report, including the full laboratory report.

Response: *The revised report has been expanded to include a data summary for the flux chamber sample results in Section 3.6, and the field investigator's report is provided in Appendix D. Laboratory reports are included as part of the Data Validation Summary Report provided previously as a separate deliverable to NDEP.*

41. Section 3.6, page 3-21, key aspects of the conceptual site model (CSM) should be discussed in this section to tie the flux chamber sample locations to potential VOC sources (i.e., groundwater and soil vapor). For example, levels of VOCs measured in groundwater and soil matrix are of interest. Rationale for collecting only one flux chamber sample in the northern portion of the site should be provided. Additionally, it would be helpful to provide a figure which depicts the depth to groundwater across the site.

Response: *Additional text has been added to address this issue. In addition, depth to groundwater information has been added to Figure 2.*

42. Section 3.6, page 3-21, the text indicates that 21 flux chamber samples were collected but that data are only available for 19 samples. While Figure 9 shows 19 flux chamber sample locations, Table 1 lists only 15 flux chamber samples. Table B-12 lists 19 samples. Please clarify these inconsistencies.

Response: *The report text has been revised to reflect the fact that 24 flux chamber samples (including duplicates) were collected from the 20 biased sampling locations and 1 random sampling location, and the fact that two of those samples were not analyzed – resulting in data being generated for 22 flux samples. Table 1 has been revised to include flux sampling at all biased locations. A footnote has been added to Figure 9 to indicate those surface flux samples collected but not analyzed. Table B-12 is correct as originally presented and no revisions were needed.*

43. Section 3.6, page 3-21, 3rd paragraph, last sentence, please indicate the two locations in which surface flux data is unavailable.

Response: *The discussion of flux samples has been reworked to include an explanation of the missing data, and this subject sentence has been deleted.*

44. Section 3.6, page 3-21, last paragraph, it is noted that NDEP has not approved the radon flux sample collection method to date and the issue of radon risk in the vapor intrusion pathway may be deferred until a suitable investigation and modeling protocol are identified.

Response: *Text has been added on page 3-22 regarding this issue.*

45. Section 3.6, Page 3-21; last sentence, this constitutes a gap in the risk assessment. Radon needs to be dealt with prior to completion of the risk assessment. Otherwise, NDEP agrees that it is not obvious what the path forward should be. For Mohawk, it might be reasonable to appeal to background conditions in soil and GW (if applicable), and hence that radon must also be at background.

Response: *Text has been added on page 3-22 as suggested in the teleconference on January 5, 2010 between BRC and NDEP. In addition, a footnote has been added addressing the recent indoor air and groundwater sampling and analysis for radon: "Note that BRC recently performed indoor air and co-located groundwater sampling for radon at two locations in the area around the Site. The results of these samples will be used to determine a course forward regarding radon at the Site. This work is currently ongoing."*

46. Section 3.7, page 3-22, the section on Data Quality Assessment (DQA) is not presented in the correct order. DQA should come after the risk assessment is performed to verify that enough samples were taken. Although the analysis is chemical specific, the intent of the DQA is to show that sufficient data have been collected to support the risk evaluation. Hence, it should be performed after the risk assessment. Note also, that standard deviations computed from the risk assessment data are used in the DQA – the ordering is wrong, since the standard deviations have not yet been presented. This comment has been made in previous rounds of comments to BRC on other documents. DQA is an analysis that is performed after the risk assessment to determine if enough data have been collected. Note that the DQA is also shown as the penultimate step in NDEP's Closure Plan decision process, which is meant to be followed in these BMI Site projects.

Response: *Agreed. The Data Quality Assessment section has been moved to Section 10 of the report.*

47. Section 3.7, page 3-22, 1st sentence, please indicate the rationale for choosing and conducting sample size calculations on the eight analytes specified in this paragraph.

Response: *Rationale for the inclusion of each of these eight analytes has been added on page page 10-1.*

48. Section 3.7, page 3-22, last sentence, some interpretation of Table 6 is needed. For example, why is the arsenic BCL multiplied by 10? What do the numbers mean in the tables? How do they compare to the sample sizes for these chemicals?

Response: *Text has been added on page 10-2 providing interpretation of the results. As noted in the text, "For arsenic, the Site mean concentration exceeds its BCL based on the target cancer risk level of 10^{-6}. It is not appropriate to apply this calculation where the threshold value is less than the mean concentration."*

49. Section 4.1, page 4-1, it is not clear why this subsection is in Chapter 4. Chapter 4 is about data usability (including data validation by reference at least). Section 4.1 does not seem to belong here, and would be better placed with the background comparisons.

Response: *The text in Section 4.1 has been relocated to Section 5.1, in which the background comparison evaluation is discussed.*

50. Section 4.1, page 4-1, 2nd paragraph, it would be beneficial to have more discussion on the similarities that exist between the site and background datasets (i.e., describe the dominant lithologies for each dataset and why they are suitable for background comparison).

Response: *See prior comment. The relocated text in Section 5.1 has been expanded as suggested.*

51. Section 4.2, page 4-2, the NDEP Data Usability Guidance step for data analysis is not described in a separate subsection of Section 4.2. All other bullets on page 4-2 are described in their own sub-sections except for data usability analysis. Please revise.

Response: *A sub-section (Section 4.7 Data Analysis) has been added, in which the data analysis results are discussed.*

52. Section 4.2.3, Page 4-4; 2nd to last sentence. Please change Section 2.2 to Section 2.3.

Response: *The subject text (now Section 4.3) has been revised as suggested.*

53. Section 4.2.4, Page 4-5; 2nd paragraph, 1st sentence. It appears that more than one reference should be included in the parentheses at the end of this sentence.

Response: *A reference to the SAPs has been added (now Section 4.2).*

54. Section 4.2.4, Page 4-5; 3rd paragraph. It appears that dichloromethyl ether also has an SQL that exceeds its respective BCL.

Response: *The subject text (now Section 4.4) has been revised to include a discussion of dichloromethyl ether, which had SQLs higher than the BCL in the five samples in which it was analyzed.*

55. Section 4.2.5, Page 4-6, 2nd paragraph, each sample for which relative percent difference is outside of laboratory control limits, and percent recovery is below the lower laboratory control limit, should be discussed and the rationale for usability for HRA should be given by

the risk assessor (NDEP, 2008). As specified in Section 5 of that guidance: "For each data point carried into the HRA database that had laboratory QC issues (*e.g.*, outside control limits, missing QC, missed holding time, or elevated RL) ["Category 1"], provide a discussion of why (even though the required criteria were not met) the data were considered usable, if so. And for each data point identified as unusable and eliminated from the HRA dataset ["Category 2"], a discussion should be included as to why the data point was considered not usable and why elimination of the data point does not lead to a data gap. Provide a list of the specific sample identifications (IDs), and the associated analytes within those sample IDs, that fall into Category 1 and into Category 2, and discuss, for each of the Category 1 and Category 2 data points, why the risk assessor made the decision of whether the data point was usable or not." For HRA purposes, it is not adequate to conclude that all data are usable, other than those flagged "R" as part of the data validation process.

Response: *This section (now Section 4.5) has been revised and expanded.*

56. Section 4.2.6, Page 4-6, 3rd paragraph, please identify the specific samples for which data have been flagged "R", as well as any other unusable data.

Response: *The section (now Section 4.5) has been expanded to include listings of the specific samples associated with rejected or other unusable data.*

57. Section 4.2.6, Page 4-7, 3rd paragraph, please avoid the terminology "there do not appear to be any data usability issues…" As specified in the supplemental data usability (DU) guidance (NDEP, 2008), the DU evaluation requires evaluation of all data and the individual assessment of each data point with lab quality control (QC) problems.

Response: *This section (now Section 4.6) has been revised to include a more in-depth discussion of the data.*

58. Section 4.2.6, Page 4-8; 1st paragraph under bullets. Why aren't the three uranium results that were rejected by the laboratory included here? Please clarify.

Response: *The isotopic uranium results have been added to this paragraph (now Section 4.6).*

59. Section 4.2.6, Page 4-9, top, please clarify that the completeness of 99.98 percent does not apply to the flux chamber data.

Response: *The completeness values were checked and the completeness values with the flux chamber data are 99.93% and without the flux data are 99.92%.*

60. Section 4.2.6, Page 4-9; Comparability paragraph, if comparative statements between two datasets are made, then they need to be supported. Support could come with presentation of some ranges of the data, other summary statistics, plots or some other simple comparison, and could include tables of both datasets for some chemicals.

Response: *The subject text (now Section 4.6) has been expanded to include supporting documentation (tables and plots).*

61. Section 5.0, page 5-1, key components of the CSM section should be presented earlier in the HRA to support Sections 3 and 4 (confirmation data and data evaluation).

Response: *As suggested by NDEP in a later communication, the CSM section has been moved to Section 2.5 to provide a context to the data discussions in Sections 3 and 4.*

62. Section 5.0, Page 5-1; 1st paragraph, last sentence. The section referenced here is incorrect. Please change Section 4 to Section 2.

Response: *Both Sections 2 and 4 of the Closure Plan are now referenced in the text on page 2-9.*

63. Section 5.0, Page 5-2; 2nd bullet. Is this bullet referring to the "migration to surface water" transfer in Figure 12? If so, it does not appear that receptors are defined for this release mechanism.

Response: *Discussion on this pathway is further clarified in Section 2.5.2.*

64. Section 5-2, Page 5-3; last paragraph, 7th sentence. Please change Section 2.3.3 to Section 2.2.3.

Response: *The subject text (now Section 2.5.2) has been revised as noted.*

65. Section 5.3.2, Page 5-5; 1st sentence. Please insert an "s" after "present".

Response: *The subject text (now Section 2.5.3.2) has been revised as noted on page 2-13.*

66. Section 5.3.2, page 5-5, downwind residential receptors should be shown on the list of potential receptors.

Response: *Downwind off-site residents are a potential receptor but were not evaluated as their exposures are less than those evaluated in the human health risk assessment. This issue has been addressed in the revised Closure Plan. Reference to the Closure Plan is provided on page 2-14.*

67. Section 6.0, Page 6-1, bullet list, please remove the third bullet as this is not one of the two procedures used to eliminate the COPCs for quantitative evaluation in the risk assessment. Turn the bullet into text.

Response: *The text has been revised as suggested on page 5-1.*

68. Section 6.1, Page 6-1; last paragraph, 3rd sentence, please clarify that the statistical tests run with GiSdT were for background comparisons. Usually there are some statistical methods that are run by BRC that are not run using GiSdT. We assume that is the case here, hence the clarification.

Response: *The sentence has been changed as noted (now Section 5.1).*

69. Section 6.1, Page 6-1, last paragraph, the way this series of statistical tests is designed, failure of any one of the tests implies failure of background. This is implicit in the NDEP guidance on significance levels for the Gilbert Toolbox of background comparisons. If the family-wise adjustment is used for the significance level, then the implication is that failure (rejection) of any one test implies failure of background. NDEP recognizes that the tests are one line of evidence, albeit the primary line of evidence for background comparisons. Hence, in cases in which one test fails but the *p*-value is very close to the family-wise significance level, and the plots and summary statistics show very little practical difference, then it can be reasonable to conclude that background does not fail.

Response: *The text in Section 5.1 has been revised to reflect the statement made in NDEP's comment.*

70. Section 6.1, Page 6-2, 1st paragraph, in addition, the intent of the NDEP guidance in this regard is to also verify that this assumption is reasonable (that the duplicates can be used as independent samples). NDEP does not expect a formal statistical analysis to verify this, but at least a cursory look at the data to make sure that the field duplicates do not appear to have much lower variance.

Response: *BRC evaluated the primary and field duplicate pairs and did not find appreciable variance between each. The following text has been added on page 5-3; "The field duplicates were compared to the primary sample during the course of data validation. Of the 13 duplicate pairs, all of them required some qualification to a subset of the analytes. The variances were not out of the line with the variance in results across the site."*

71. Section 6.1, Page 6-2, Table, NDEP does not agree with all of the background comparison decisions that have been made. For example, antimony and selenium should be carried forward because of detection limit problems (and perhaps others). And, several metals appear to have several considerably higher concentrations in the site data (e.g., molybdenum, manganese, zinc, silver). Because of the construction of the tables, that do not show the range of non-detects (NDs) for both site and background data (Table 7) per NDEP guidance, it is difficult to see the effects of the NDs on the background comparisons. It would also be helpful if the plots distinguished between NDs and detects.

Response: *The table has been revised to carry forward antimony. There are no detections of selenium in the site dataset, therefore it has not been carried through the HRA. Additionally, molybdenum, silver, and zinc were added, however, manganese does not appear to have significantly higher concentration at the Site compared to background. The boxplots do distinguish between NDs and detects, however, the probability plots do not due to a limitation of the software.*

72. Section 6.1, Page 6-2, Table, note that all of the arsenic p-values are 1. This implies that the arsenic Site data are less than background. The plots confirm this. This implies that the supplemental background data set might not be the right background data set for Mohawk, some further investigation/explanation/discussion is needed.

Response: *Additional discussion on the background dataset and its applicability to the site has been provided on pages 5-1 and 5-2 As NDEP knows, this background dataset was collected specifically to provide background data for the eastern portion of the Eastside, including Mohawk. Implying that this background dataset is not the correct background dataset for Mohawk goes against exactly what this background dataset was collected for, with NDEP's concurrence.*

73. Section 6.2, page 6-4, as per the BRC Closure Plan, "Prior to eliminating a COPC based on the FOD criteria, (1) any elevated detection limits will be addressed, and (2) data distributions within sub-areas will be considered (*e.g.*, potential hot spots will be assessed). Additionally, the detection of the COPC in all sampled media will be considered". Please document that COPCs eliminated on the basis of frequency of detection (FOD) do not exhibit hotspots (a quick way to accomplish this is to add a footnote documenting that the maximum concentration does not exceed the residential BCL).

Response: *A rationale has been added to the COPC selection Table 8 indicating that a chemical with a detection frequency of less than 5% has been compared to NDEPs residential BCL.*

74. Section 6.2, Page 6-4, some discussion of the results of the frequency of detection analysis is warranted in the text. Simply referring to a table is insufficient.

Response: *A discussion of the chemicals eliminated as COPCs due to a low frequency of detection has been added to Section 5.2.*

75. Section 6.2, Page 6-4, last paragraph, this does not seem consistent with the way in which TCDD was handled in previous data reviews and risk assessments (4A, 4B, and the Utility Corridor). Please comment.

Response: *It is correct that TCDD is being handled differently than in some previous risk assessments. However, the use of a 50 ppt screening value is consistent with the most recent version of Section 9 of the Closure Plan.*

76. Section 7.0, Page 7-1, 1st paragraph under bullets, for the sake of consistency, please bullet the NDEP guidance documents relied on in this risk assessment.

Response: *The NDEP guidance documents used have been bulleted in Section 6.0.*

77. Section 7.1.1, Page 7-2 to 7-3; NDEP notes that NDEP guidance on summary statistics indicates that two summary statistics tables are needed to support a risk assessment. The first shows the raw data summary, not manipulated in any way (e.g., Table 4). This table is used to see the data and support background comparisons. The second involves use of ½ detection limit for calculating UCLs and supporting risk assessment. BRC has not provided all fields suggested in the NDEP guidance for the background data that are used here, and has not provided information on the non-detects in the risk assessment table. It would be helpful if the report included all the information suggested in the NDEP guidance, and performed the proportions and others tests when appropriate when non-detects are an issue.

Response: *The required summary statistics have been included in Table 9.*

78. Section 7.1.1, Page 7-3; 1st paragraph, please describe the UCL methods used in this HHRA. There are three UCL methods in EnviroGiSdT, these methods should be noted, and it should be noted what decision is made to choose one of them. NDEP recommends using the maximum of the three, but it is not clear what BRC is using.

Response: *The three methods have been listed in Section 6.1.1, with the following text added on page 6-3: The maximum UCL of these three methods was used as the exposure point concentration, unless the maximum UCL of the three methods was greater than the maximum detected concentration. In these cases, the maximum detected concentration was selected as the exposure point concentration.*

79. Section 7.1.1, Page 7-3; 3rd paragraph, Appendix G includes plots for selenium, arsenic, and TCDD but they are not included on the COPC list. Please clarify.

Response: *Selenium has been removed from the Appendix G (now Appendix I) plots, and antimony, molybdenum, silver, and zinc have been added (as COPCs). As discussed in the meeting on January 5, 2010, arsenic and TCDD are considered compounds of interest for the project has a whole, therefore plots for these were also included in Appendix I. This has been explained in the text and the Appendix has been updated to include a clarification on the relevant figures.*

80. Section 7.1.2, page 7-5, as noted above, please clarify here that radon flux sampling methodology has not been approved by NDEP and that radon exposures in indoor air were not assessed in the HRA.

Response: *A clarification has been added to the text in Section 3.6, page 3-22.*

81. Section 7.1.2, page 7-5, bottom, the exposure factors that are contained in the EXCEL calculation spreadsheets in Appendix H should be included in the primary text exposure factor tables (i.e., Tables 13 and 14) for transparency and to facilitate review.

Response: *These factors have been added to Tables 15 and 16.*

82. Section 7.1.2, page 7-5, sentence above equation, please revise to read "The indoor air concentrations are determined from the flux measurements using the following equation:"

Response: *The sentence in the Section (now Section 6.1.2) has been revised as recommended.*

83. Section 7.1.2, page 7-6, top, to facilitate review, please summarize the indoor air exposure point concentrations (EPCs) for all flux chamber samples in a table in the main text, similar to the summary of outdoor air EPCs (Table 12). It should be noted in the text that in all cases, except for the one detection of 1,2-dibromo-3-chloropropane (DBCP), the higher of the two flux chamber sample measurements (full scan or SIM) was used in the risk calculations. Further rationale should be provided as to why the higher of the TO-15 and SIM was not used for DBCP in sample MC1-J11, as was done for all other samples.

Response: *A table (Table 11) has been created to summarize the indoor air exposure point concentrations. Additionally text has been added to discuss the rationale for exposure point concentrations selection in Section 6.1.2.*

84. Section 7.1.3, Page 7-6; F(x) parameter definition. Please change Um and Ut to U_m and U_t.

Response: *The parameter definition in the Section (now 6.1.3) has been revised as recommended.*

85. Section 7.1.3, page 7-6, for outdoor air, it is recommended that the calculation of outdoor air EPCs be segregated for volatile organic compounds (VOCs) versus particulates. For TO-15 analytes, outdoor EPCs should be based only on the flux chamber data. For VOCs detected in soil that are not included in the TO-15 suite, the soil data and the USEPA volatilization factor (VF) should be used.

Response: *The text in Section 6.1.3 and risk calculations has been revised accordingly.*

86. Section 7.1.3, page 7-7, following presentation of the construction worker PEF, for transparency, please present the residential PEF as a table, similar to that for the construction worker PEF.

Response: *A table (Table 12) has been created to present the residential PEF calculation.*

87. Section 7.1.3, page 7-7, 5^{th} paragraph, please edit the first sentence to clarify that radon exposures in outdoor air were not assessed in the HRA.

Response: *Radon was removed from the sentence in Section 6.1.3.*

88. Section 7.1.3, page 7-7, please explain that, for EPA Method TO-15 VOCs, the flux chamber data results are used as the basis for outdoor air EPCs.

Response: *The text in Section 6.1.3 has been revised to explain the basis for outdoor air exposure point concentrations for VOCs.*

89. Section 7.1.3, Page 7-7; PEF equation, as requested in previous BRC documents, please write out the PEF equation listed here in an equation editor to be consistent with other equations in this document. Also, the parameters for this PEF equation (PEF_{sc} and PEF_{sc_road}) should have a reference pointing to Table 11.

Response: *The equations in Section 6.1.3 have been added using equation editor. A reference to the PEF equation parameters being in Table 11 (now Table 13) is provided in the paragraph following the equation.*

90. Section 7.1.3, Page 7-7; 3^{rd} paragraph under PEF equation. Please change "Q/Cvol" to "Q/C_{vol}"

Response: *The recommended revision has been made to Section 6.1.3.*

91. Section 7.1.4, Page 7-7; Please insert a comma after Baes *et al*. (1984).

Response: *A comma has been added after the reference in Section 6.1.4.*

92. Section 7.2, Page 7-8; 2nd paragraph, last sentence, it seems that Section 6.1 not the correct section reference. NDEP believes the correct reference should be Section 7.1. Please clarify.

Response: *Agreed; however, due to reorganization the section number has changed and it is now Section 6.1. No change was made.*

93. Section 7.2.2, pages 7-9 and 7-10,please ensure that the equations presented in the main text of the report are consistent with how the EXCEL risk calculation spreadsheets are set up. For example, the calculation of inhalation exposures should explicitly follow the USEPA RAGS Part F guidance.

Response: *The text in Section 6.2.2 and risk calculation spreadsheets have been modified to follow RAGS Part F guidance explicitly.*

94. Section 7.2.2., page 7-10, the AT should be in units of hours.

Response: *The units for the parameter have been corrected in Section 6.2.2.*

95. Section 7.3, page 7-13, please define RfD and RfC (and CSF and IUR) separately, including units for each risk descriptor.

Response: *As suggested, the definitions of the parameters have been listed separately in Section 6.3.*

96. Section 7.3.1, Page 7-12, 1st sentence under numbered list, please remove the word "developed" and insert "and toxicological surrogates recommended".

Response: *The recommended revision has been made in this section (now Section 6.3.1).*

97. Section 7.3.4, Page 7-14, 3rd sentence, this sentence is unclear. Please reword this sentence.

Response: *The sentence in this section (now Section 6.3.4) has been reworded.*

98. Section 7.4.1, Page 7-14; 1st sentence, please change this sentence to read, "In the risk characterization, carcinogenic risk is estimated separately as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to chemicals and asbestos."

Response: *The sentence has been reworded as suggestion in the section (now Section 6.4.1).*

99. Section 7.4.1, Page 7-14, 2nd sentence, please insert "for chemicals" after "...risks...".

Response: *The sentence in Section 6.4.1 was revised as recommended.*

100. Section 7.4.1, page 7-14, 3rd sentence, at the end of the sentence, please insert, ", while the IUR converts estimated exposure concentrations averaged over a lifetime to incremental risk of an individual developing cancer."

Response: *The statement was added to the sentence in Section 6.4.1.*

101. Section 7.4.1, Page 7-15; 1st and 2nd sentences under equations, please change this sentence to read, "It is assumed that cancer risks for different chemicals and from multiple exposure routes are additive, which may introduce a protective bias in the result of the cancer risk assessment." Please also remove "High-end" from the beginning of the third sentence.

Response: *The recommended revisions have been made in Section 6.4.1.*

102. Section 7.4.2, page 7-15, please discuss how the target organ HIs were characterized, including identification of the chemicals for which target organs were identified. Please include references cited for target organs. Please extract the COPC target organ table imbedded in the risk calculation workbook and present it in the main text of the report.

Response: *A discussion of the use of target organ information has been added to Section 6.4.2. Additionally Table 19 of target organs for COPCs has been added to the main text of the report.*

103. Section 7.4.2, page 7-15; 1st sentence. Please insert ", RFCs" in the parentheses at the end of this sentence.

Response: *RfCs has been added to the sentence in Section 6.4.2.*

104. Section 7.4.2, page 7-16; RfD/RfC equation parameters. Please break these parameters into separate parameter entries as it seems like the two parameters are being divided. Please

also address this issue when using RfD/RfC in the general text (i.e., change these instances to RfD or RfC).

Response: *The requested changes have been made to Section 6.4.2.*

105. Section 7.4.3, Page 7-17; NSM equation parameter. This comment has been made in previous BRC documents. Please remove the duplicate NSM parameter from the parameter list.

Response: *The duplicate parameter has been deleted in Section 6.4.3.*

106. Section 7.4.3, Page 7-17, 1st paragraph, 2nd sentence, please indicate if the word "Site" is being used here to indicate the overall BMI Common Areas or the Mohawk sub-area. It is presumed that BRC is referring to the overall BMI Common Areas as amphibole fibers have not been detected at this sub-area.

Response: *The word "Site" has been replaced with BMI Common Areas in Section 6.4.3.*

107. Section 7.4.4, page 7-17, since the numerical results of the risk characterization are not presented in this section, a reference should be made to the fact that they are presented in Section 9.

Response: *A reference to Section 8 has been added to Section 6.4.4.*

108. Section 8.0, page 8-1, please note that uncertainty is not only due to variability, but also due to lack of knowledge and/or data.

Response: *The discussion in Section 7.0 on page 7-1 has been revised accordingly.*

109. Section 8.0, page 8-1, one issue here is that the CSM and intended use of the Site has not been brought back into the uncertainty analysis. Types of exposures describes receptors and pathways, but there is no discussion that these scenarios are probably very conservative because of the use of the Site and how the Site will be developed. This is a large source of potential conservative bias in this risk assessment, which should be acknowledged.

Response: *Additional text regarding this issue has been added on page 7-1.*

110. Section 8.1, page 8-1, please note that impacts associated with laboratory errors are not always likely to be low. The impact of lab errors for the site data should be specifically evaluated to support such a statement for this HRA.

Response: *That sentence in Section 7.1 has been deleted and an additional discussion on the laboratory analyses has been added per comment 111.*

111. Section 8.1, page 8-1, uncertainties associated with site characterization should be tied to the CSM and DU evaluation.

Response: *Additional discussion of CSM and DU evaluations have been added to Section 7.1.*

112. Section 8.1, page 8-1, please add discussions regarding the rejected data (e.g., perchlorate, uranium), those data with low MS/MSD, and lack of radon evaluation. Please also add these to Table 22.

Response: *A discussion of the rejected data and lack of radon evaluation was added to Section 7.1 on page 7-2 and Table 25.*

113. Section 8.1, page 8-2, 2nd full paragraph, please expand on the discussion as to why the full scan flux chamber result for DBCP of 0.17 ug/m2-min was not used in indoor air risk calculations for sample location MC1-J11 (we note that the maximum result of the TO-15 and SIM was used in all other cases). For example, if there is information from the laboratory to explain the detection in the full scan but not the SIM analysis, please include it. Although it is acknowledged that this compound was not detected in the soil and groundwater, it should be noted that the soil data were only collected to a depth of 10 feet below ground surface (bgs). Groundwater depth in the area of MC1-J11 is approximately 50 feet bgs, therefore, it is unknown whether there may be a source in soil that is not captured by the soil analyses conducted at the site. The relatively higher sensitivity of the flux chamber sampling and analysis, as well as the acceptability of the laboratory quality control data, should be addressed in this discussion.

Response: *The discussion of the flux chamber results has been expanded in Section 7.1 on page 7-3.*

114. Section 8.2, page 8-2, in regard to off-site receptors, at a minimum please include a semi-quantitative analysis and discuss other likely measures (dust control, etc.) that will reduce off-site impacts.

Response: *A discussion on dust control requirements has been provided on page 7-5.*

115. Section 8.2, page 8-3, 3rd full paragraph, please clarify what is meant by "other inorganics".

Response: *The word 'other' has been removed from this sentence.*

116. Section 8.2.2, page 8-3; last sentence. This sentence is unclear. Please reword.

Response: *The sentence in Section 7.2.2 has been reworded on page 7-5.*

117. Section 8.3, page 8-4, 1st paragraph, last sentence, please change "conservative multipliers" to "conservative safety factors" (the safety factors are actually divisors). Please note that this comment applies to language in Section 8.3.3 as well.

Response: *The phrase has been revised as suggested in Section 7.3 and 7.3.3, pages 7-6 and 7-7.*

118. Section 8.3, page 8-4, TICs were not discussed prior to this section. Please follow USEPA guidance (USEPA, 1989, Section 5.6) regarding TICs and provide some discussion in the data evaluation section of the HRA.

Response: *A discussion of the reported TICs are presented in section 4.5.4, page 4-10.*

119. Section 8.3, page 8-4, please note if surrogate toxicity values were used for TO-15 analytes. If so, please present the toxicological surrogates and rationale for selection.

Response: *Surrogate toxicity criteria were not used for TO-15 analytes. A statement has been adding to Section 7.3, page 7-6.*

120. Section 8.3.1, page 8-4, please add to this discussion the lack of toxicity criteria for the COPC niobium.

Response: *The lack of toxicity criteria for niobium is discussed in Section 7.3.1, page 7-6.*

121. Section 8.3.2, page 8-4, bottom line, please add RfCs and IURs to this sentence.

Response: *RfCs and IURs were added to the sentence in Section 7.3.2, page 7-7.*

122. Section 8.3.2, page 8-5, 2nd sentence, please change this sentence to read "Humans are generally exposed to much lower doses in the environment, which may affect…"

Response: *The sentence in Section 7.3.2 has been revised on page 7-7 as requested.*

123. Section 8.3.5, page 8-5, please change the language to read "Uncertainty due to extrapolation of toxicological data for potential carcinogens tested in animals to human response is commonly the case for potentially carcinogenic chemicals. USEPA frequently uses the linearized multi-stage model, or other non-threshold low dose extrapolation models, to extrapolate the toxicological data to estimate human response. These low dose extrapolation models assume that there is no threshold…"

Response: *The paragraph in Section 7.3.5 has been revised on page 7-7 as suggested.*

124. Section 9.0, page 9-1; first sentence. Please insert "and asbestos" after chemicals.

Response: *The word "asbestos" was inserted into the sentence in Section 8.0, page 8-1.*

125. Section 9.0, Page 9-1, 2nd paragraph, 2nd sentence, it is unclear why radionuclides are being referenced in this sentence when they were not carried through in this risk assessment.

Response: *Radionuclides were removed from the sentence in Section 8.0.*

126. Section 9.1, Page 9-1, 2nd paragraph, it is unclear why 1,2-dibromo-3chloropropane and 1, 2-dibromoethane are being referenced here as primary drivers with respect to risk. They are not on the COPC list (and should be included) and they are not presented anywhere in a tables section that shows their ILCRs. Please clarify. It would also be helpful to list these ICLRs in Tables 17-20, where appropriate.

Response: *The uncertainty section has been expanded to further discuss the uncertainties associated with the detections of these two chemicals, and why they should not be included in the quantitative risk assessment. Given this, their discussion in the summary of results section has been removed.*

127. Section 9.1, page 9-1, given that indoor air calculations are not performed as part of this risk assessment due to an on-going evaluation of those methods, there should still be some information that is presented in the overall summary section that states this fact. The fact that these concentrations are not yet available should also be incorporated into the overall uncertainties of this HRA.

Response: *BRC assumes that this comment is referring specifically to radon. This issue has been addressed further in Sections 3.6 and 7.1 on pages 3-22 and 7-2, respectively.*

128. Section 9.4, page 9-3, 2nd line, please change "0.82" to "0.082".

Response: *Because of revisions to the risk assessment calculations, this comment is no longer applicable. The correct values have been inserted.*

129. Section 10.0, general comment, SESOIL is an appropriate model for non-volatile chemicals, however SESOIL does not simulate downward vapor-phase diffusion. Because VOCs may migrate downward via vapor-phase diffusion, particularly in a relatively dry sandy soil as modeled using SESOIL, a model that accounts for this mechanism (*e.g.*, VLEACH) should be used for the VOCs. The Henry's constant for each VOC should be adjusted based on site-specific temperature. When using VLEACH for the VOCs, the SESOIL-calculated groundwater recharge rates and moisture contents may be used as input.

Response: *Agreed. VLEACH has been utilized for VOC COPCs in the soil matrix to account for downward vapor migration of vapors. To ensure some consistency across the models used, VLEACH has been evaluated using the recharge rates calculated using the SESOIL model.*

130. Section 10.1.1, Page 10-2; bullet list. Please provide formal references for each of the data files used for SESOIL input.

Response: *The text is referring to internal model code data files. For model input purposes the model uses just one file. The text has been revised to remove references to separate files.*

131. Section 10.1.1, page 10-2; 1st paragraph under bullet list, 1st sentence. Please indicate which data file is being referred to in this sentence.

Response: *See response to comment #130 above.*

132. Section 10.1.1, page 10-3, first sentence of last paragraph of Section 10.1.1, BRC states "The groundwater was assumed to be found at a depth of 45 feet bgs." Please clarify whether this is an assumption or based on site-specific data. Footnote b of Table 23 refers to the '*Fifth Round Groundwater Monitoring Report*'. If the depth to groundwater has been observed to vary, please provide justification for using a depth to groundwater other than the minimum depth measured, as necessary.

Response: *The depth to groundwater has been observed to vary from 45 to 70 feet bgs in recent (July-August 2009) sampling. The shallowest depth in the latest July-August 2009 sampling was 49 feet bgs. Conservatively, the minimum depth of the measured range was used. The text on page 9-3 and tables have been modified to clarify.*

133. Section 10.1.2, Page 10-3; 2nd paragraph, 1st sentence. Please remove the word "additional" from this sentence.

Response: *The word has been removed from Section 9.1.*

134. Section 10.2, Page 10-5; 1st paragraph, last sentence. Please remove the word "the" before the word "none". Please replace "as well as" with the word "nor".

Response: *These words have been removed from this sentence on page 9-5.*

135. Section 10.2, Page 10-5; 2nd paragraph, 2nd sentence. Based on the tables provided in this report, it appears that benzene is predicted to reach groundwater under both scenarios.

Response: *Benzene has been added to the list of chemicals predicted to reach groundwater.*

136. Section 10.2, Page 10-5; 2nd paragraph, 4th sentence. Please reword this sentence. Also, it is noted that the formaldehyde BCL presented in Tables I-7, I-8, and Table 23 do match the BCL presented in the text.

Response: *The sentence has been reworded and BCLs corrected to match the tables.*

137. Section 10.2, Page 10-5; 2nd paragraph, 2nd to last sentence. Please switch the words "is it" to "it is" after "Therefore".

Response: *The change has been made on page 9-6.*

138. Section 11.0, page 11-1, the summary section does not discuss any of the major findings of this HRA. It is suggested that major findings and a summary of how they are interpreted be presented in this section.

Response: *Major finding of the human health risk assessment have been added to this section.*

139. Tables, general comment, Summary Statistics Tables. These tables do not quite meet the intent of NDEP's guidance on summary statistics tables. Table 4 is comprehensive. The table that supports background comparisons (Table 7) needs to include the summary statistics for non-detects for both the Site and background data. The table for risk assessment does not need to include the summary statistics for non-detects, because risk is based on the mean (or max) concentrations.

Response: *The tables providing summary statistics have been revised to incorporate the information required in NDEP's guidance documents.*

140. Table 1, as previously mentioned, this table lists 15 flux chamber sample locations; however, the text, Table B-12, and Figure 9 refer to 19 flux chamber samples. Please resolve this discrepancy.

Response: *See response to comment #42 above.*

141. Table 8, the rationale for eliminating dioxins/furans as COPCs should be that the maximum TCDD TEQ is below the 50 ppt residential BCL (NDEP 2009). Please edit the rationale column and footnote section accordingly.

Response: *The rationale on Table 8 has been revised to indicate that the COPC was eliminated because all TCDD TEQs are less than 50 ppt, consistent with the Closure Plan methodology.*

142. Table 11, please check the conversion factor from acres to square meters in the PEF calculations.

Response: *The conversion factor was reviewed and found to be correct. Additional significant figures were added, however, the resulting change to the value and risk estimates is very small.*

143. Table 12, please remove the VF component of this table for those VOCs analyzed by EPA Method TO-15. It should be noted that VFs for acetaldehyde and formaldehyde should be retained.

Response: *Table 12 (now Table 14) has been revised accordingly.*

144. Table 13, please change the residential ET indoor value to 16.7 hours/day according the USEPA RAGS Part F errata sheet (sent to BRC under separate cover via e-mail) and the residential ET outdoor value to 2 hours/day according to USEPA's Exposure Factors Handbook (USEPA, 1997), which is the primary source document cited in the USEPA radionuclide guidance document. Please also note the previous comment regarding the AT for inhalation exposures to be in units of hours.

Response: *Table 13 (now Table 15) has been revised as requested.*

145. Table 14, please change inhalation ET to hours/day per RAGS Part F and the AT for inhalation exposures to units of hours. Also, Please insert "maintenance worker" after the parameters "Averaging time, non-carcinogenic" and "Exposure duration".

Response: *Table 14 (now Table 16) has been revised as requested. The averaging time and exposure duration referenced is used for both the maintenance worker and the commercial worker. A reference to both has been added.*

146. Tables 15 and 16, please include the COPCs from the flux chamber samples. These tables appear to only include soil COPCs.

Response: *Agreed. These COPCs have been added to these tables (now Tables 17 and 18).*

147. Tables 17-20, these tables need to include ILCRs for volatiles that are brought up in the text when describing risk assessment results. The ranges provided for the ILCR in these tables for volatile inhalation are not referenced. It would be beneficial to see the actual constituents and values in this table that are incorporated into the "Combined" ILCR and HI estimates

Response: *Agreed. Additional information has been provided in these tables regarding the surface flux risk estimates included in the cumulative risk results. However, the individual constituents are not included since these risk estimates were done on a sample-by-sample basis (thus the presentation of a range of cumulative risks).*

148. Table 22, please add the items identified above in the Uncertainty Analysis section to this table.

Response: *Additional information has been added to this table (now Table 25).*

149. Appendix G, Figure G-10, it is not clear why selenium is included as a COPC as it is not listed in the overall COPC list as defined earlier in this report. Please clarify.

Response: *See response to comment #79 above.*

150. Appendix H, the NDEP has the following comments:
  a. Asbestos spreadsheets, the NDEP has the following comments:
     i. In future submittals, it would facilitate review if BRC would not edit the form of the risk equations that are provided in the NDEP guidance worksheets.

Response: *Agreed.*

     ii. Please clarify why chemical risk calculations were performed for dust inhalation using maintenance worker and commercial worker scenarios, but no corresponding calculations were performed for asbestos. Why were asbestos risks for off-site residents, who may be exposed to dusts generated during construction activities as well as post-construction, not evaluated? Please clarify. NDEP prefers that the off-site resident be evaluated to make the case clear that the risks to such a receptor are lower than those for the construction worker or on-site resident.

Response: *Risk calculations for asbestos for commercial and maintenance workers were included in the report. See response to comment #66 above regarding off-site resident exposures.*

iii. Sample MC1-A01-A is listed in worksheet 'Data and Analytical Sensitivity' as having 1 chrysotile fiber >10 um in length, but Table B-1 in Appendix B lists two long fibers for this sample. Please review the laboratory reports and employ the correct value for this sample.

Response: *The laboratory report and the correct value, 1 chrysotile fiber has been input into Table B-1.*

iv. The exposure duration shown in cell D33 of worksheet 'Table 11' is the equivalent of 1 year (3.15E+07 seconds). The 'Particulate Matter Case Example' on pages E-26 through E-29 of EPA's Technical Background Document of the Soil Screening Guidance clarifies that the time period (*T*) for this calculation reflects the amount of time during which activities will occur (only when construction workers are present) for Equation E-18 (PEF'_{sc}) and Equation E-25 (J'_T). Please revise the calculation of *T* to reflect 8 hr/day and 250 d/yr exposure.

Response: *The calculation has been revised in Table 11 (now Table 13).*

v. A revised value of 2.6% is shown for dry road moisture content in cell D50 of worksheet 'Table 11'. This value should pertain to an annual average, so site-specific soil data collected in a few sample events may not be applicable here. Please describe the basis for this value or replace it with the default value of 0.2%.

Response: *Surface soil data at Mohawk were collected in January, May, June, July, and November. The average including all of the surface soil data points is 3.6%. The worksheet on Table 13 has been updated. Text has been added on page 6-8 noted that this value is used instead of the NDEP model default.*

vi. Th value employed for the areal extent of site contamination (0.5 acres) is incorrect. Please change this value to 54.74 acres. The Q/C dispersion model is fit into the PEF model to obtain the inverse of the source area suspended dust concentration in air (volume air / mass of source area soil). The PEF is then used in relation to the site soil concentration (C_{soil}) to obtain asbestos concentration in air: [fiber / mass PM_{10}] / [m^3 / mass PM_{10}]. Therefore, the area used for Q/C has to correspond to the area of C_{soil} for this ratio to be meaningful. The size of the assumed exposure area around an individual home is not meaningful in this calculation, unless a separate and different asbestos soil concentration applies to this limited area.

Response: *The value used has been changed to 54.74 acres.*

vii. Per updates requested in the BRC Closure Plan and documented in previous correspondence, please revise the on-site time indoor and outdoor times.

Response: *The indoor and outdoor times have been revised based on comment #144.*

151. Appendix I, the NDEP has the following comments:

a. Table I-2, please confirm the units and value of organic carbon content. The proper units may be mass per mass and not a percent as listed in this table.
b. Table I-2 and I-3, please clarify whether a Freundlich (non-linear) isotherm or linear isotherm is used to model sorption. The output files list a Freundlich exponent of 1 (linear) whereas Table I-2 lists a value of 0.5 (non-linear).
c. Table I-3, please clarify which values were used for the 'Adsorption Coefficient on Soil' for cobalt and tin. If they were not run (there are no values input for these metals in Table I-5), please remove them from the tables or advise otherwise.
d. Table I-5, please clarify whether the input concentrations are on a wet- or dry-weight basis and confirm what basis the model requires.
e. "Reports" (SESOIL_Normal_Climate_Conditions.doc and SESOIL_Enhanced_Recharge_Conditions.doc)
   i. Provide some discussion regarding the difference in input concentrations listed in Table I-5 and those listed in the SESOIL Report. It is recognized that the model is performing a unit conversion but the nature of the conversion is not clear
   ii. Provide justification for the SESOIL Groundwater Settings (*i.e.*, saturated hydraulic conductivity, hydraulic gradient, thickness of saturated zone, width of contaminated zone). If the thickness of the saturated zone is used as a mixing zone thickness or value used in a mixing cell model to calculate groundwater concentrations, it is noted that the value seems too high given that the screened interval of a typical monitoring well is less than 32 feet in length.

Response: *Table I-2 (now Table J-2) has been revised to show that the average organic carbon content is 0.77% and not 0.0077%. A linear Freundlich exponent of 1 was used as an input to the model. Table J-2 has been revised accordingly. Cobalt and tin were not run and have been removed from the tables.*

The model input concentrations are on a mass per total soil volume concentration (g/ml). The measured mass per mass dry-weight concentrations of COPCs are converted to the SESOIL *input concentration, using the soil bulk density. Table I-5 (now Table J-5) has been revised to include both the mass per mass concentrations and the mass per volume concentrations to assist in the review. The Appendix J text has been revised as well.*

The groundwater dilution modeling results from the SESOIL modeling are not used in the assessment. Rather the concentrations of COPCs in the recharge water prior to mixing with groundwater are used. The references to the Groundwater Settings in the "Reports" have been removed.

152. Risk Calculation Excel Workbooks, the NDEP has the following comments:

a. General Comment, this comment applies to all the workbooks that evaluate inhalation exposures. Please ensure that the inhalation exposure calculations match the equations presented in the main text of the report (USEPA RAGS Part F).

Response: *Agreed. All calculations have been revised to match USEPA RAGS Part F.*

b. General Comment, this applies to all the workbooks that evaluate inhalation exposures to VOCs that were detected in soil and flux chamber samples. Please remove the soil VF calculations for those COPCs that were detected in both environmental media since the EPA Method TO-15 VOCs are evaluated using the flux chamber data.

Response: *The VF calculation has been removed for VOCs that were included on the flux chamber analyte list.*

c. Residential Soil Risk Calculation Workbook, the NDEP has the following comments:

i. Table 13 tab worksheet, the exposure factor calculations at the bottom of the table – EXCEL cells B44, B45, B52, and B53 have an extra factor of "24" in the numerator of the equation. Please remove this additional factor of 24.

Response: *The residential risk calculation workbook has been corrected.*

ii. App H res_calc tab worksheet, summary, the total HI and total ILCR do not sum correctly across the columns. Neither indoor dust nor homegrown produce are summed in the total risks. This does not affect the results reported because there were separate tables created that summed these risks correctly. Since this workbook may be used in the future, we recommend the correction of this error.

Response: *The sum of the totals has been corrected. However, it should be noted that this does not affect the results reported in the text, as those are reported from Table 20.*

iii. Appendix H calc worksheets for flux chamber data, the maximum full scan result for DBCP should be listed as 0.17 ug/m2-min, not ND. Also, please change the non-cancer column title from RfD to RfC.

Response: *These changes have been made to Appendix H.*

iv. Appendix H, toxicity criteria for all pathways, a RfC for 1,2,4-trichlorobenzene of 4E-3 ug/m3 should be used and cited as a PPRTV value.

Response: *The toxicity criteria has been updated in Appendix H.*

v. Appendix H toxicity criteria, toxicity criteria for trans 1,3-dichlropropylene were not round in IRIS, which is the reference provided in the HRA.

Response: *The toxicity criteria is for 1,3-dichloropropene which is a mixture of cis and trans-1,3-dichloropropene.*

REDLINE/STRIKEOUT TEXT

EXECUTIVE SUMMARY

Basic Remediation Company (BRC) has prepared this Human Health Risk Assessment (HHRA) and Closure Report for the Mohawk Sub-Area (Site) of the Basic Management, Inc. (BMI) Common Areas (Eastside) in Clark County, Nevada. The purpose of this report is to support a request for a No Further Action Determination (NFAD) by the Nevada Division of Environmental Protection (NDEP) for the Site. The HHRA evaluates the potential for adverse human health impacts that may occur as a result of potential exposures to residual concentrations of chemicals in soil, groundwater, and air, following remediation of the Site. If the residual risks do not pose an unacceptable risk to human health and the environment, then an NFAD will be requested from the NDEP. Pending issuance of an NFAD by NDEP, ~~to allow~~ development of the Site is expected to proceed in a manner consistent with Environmental Covenants that attach to the property. This report also describes the various remediation actions that were performed and presents the subsequent confirmation data collected in 2008 and 2009 at the Site.

BACKGROUND

An initial confirmation sampling investigation was conducted at the Site in 2008 (with additional data collected in 2009) in accordance with a NDEP-approved Sampling and Analysis Plan (SAP). The SAP addressed sampling procedures such that remaining contaminants and their potential impacts to future Site uses (as discussed in Section 1.1 of the *BRC Closure Plan* for the BMI Common Areas [BRC, ERM, and DBS&A 2007[1]]) can be determined. The Site investigation involved collection of soil matrix and surface flux samples placed throughout the Mohawk Sub-Area. The sampling plan performed for this purpose as described in Section 4 of the SAP (BRC, 2008a) was consistent with the approach presented in Section 2 of the *Statistical Methodology Report* (NewFields 2006). The *Statistical Methodology Report* describes the statistical methods that are used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas. Several subsequent rounds of soil remediation and confirmation sampling were performed. The final number of samples collected was determined to be adequate for the completion of a statistically robust dataset upon which to perform an HHRA. Based upon data distribution analysis (see Sections 3.4, 6.1.1 and 7.2.1) three exposure areas were assessed for purposes of risk characterization.

[1] The BRC Closure Plan was finalized and approved by NDEP in 2007. Subsequent to this date revisions have been made to Section 9 of the Closure Plan (Risk Assessment Methodology–Human Health). The latest revision to Section 9 is March 2010. No other sections of the Closure Plan have been revised since 2007.

Basic Remediation COMPANY

CONCEPTUAL SITE MODEL

The conceptual site model (CSM) for the Site considers current and potential future land-use conditions. Currently, the Site is undeveloped. Current receptors that may be exposed to Site chemicals of potential concern (COPCs) include on-site trespassers, occasional on-site workers, and off-site residents. Under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing, parks, schools, commercial development, and streets. Future receptors identified as "on-site receptors" are defined as receptors located within the current Site boundaries (Figure 1), 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. Therefore, future receptors include on-site residents, and workers (indoor, outdoor maintenance, and construction), trespassers, and off-site residents. Due to the requirement for use of default reasonable maximum exposure parameters for future receptors, exposures to future receptors are greater than current exposures. Accordingly, only future receptors were assessed in the HHRA. Potential exposures to off-site residents were qualitatively evaluated.

The entire Site will be enhanced by restoration and redevelopment once remediation is complete. Therefore, there is no exposure to ecological receptors because the site will be prepared for human use in a residential or commercial setting.

DATA REVIEW AND USABILITY EVALUATION

A data review and usability evaluation was performed to identify appropriate data for use in the HHRA. The results of the data usability evaluation indicate that the data collected in 2008 and 2009 are adequate in terms of quality and quantity for use in a risk assessment.

HUMAN HEALTH RISK ASSESSMENT

An HHRA was conducted to determine if chemical concentrations in Site soils are: (1) either representative of background conditions; or (2) do not pose an unacceptable risk to human health and the environment under anticipated future use conditions. The HHRA followed the basic procedures outlined in U.S. Environmental Protection Agency (USEPA) and NDEP guidance documents. The HHRA also conforms to the methodology included in Section 9 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007, Section 9 revised in March 2010). The Site was divided into three exposure areas: (1) pond PUC-2, (2) pond PUA-3 and (3) the total Site ("Site-wide") of the Site with cancer risks and non-cancer hazards were calculated for each of the exposure areas. This was done to accommodate the different distributions (and related exposure point concentrations) for cobalt in PUC-2 and vanadium in PUA-3. For all other COPCs, the exposure point concentrations were based on the entire Site-wide data set. Radionuclides were not evaluated in the risk assessment as they were consistent with background concentrations. Results of the HHRA are summarized below.

Residential Scenario			
	Exposure Area		
	PUC-2	**PUA-3**	**Site-Wide**
Non-Cancer HI[1]	0.95 (TO)	~~1.~~0.93 (TO)	0.46
Chemical Cancer Risk[2]~~Risk[1]~~	1×10^{-6}	1×10^{-6}	1×10^{-6}
Asbestos Risk[3]~~Risk[2]~~	--	--	1×10^{-8} to 2×10^{-7}

Construction Worker Scenario			
	Exposure Area		
	PUC-2	**PUA-3**	**Site-Wide**
Non-Cancer HI[1]	0.48	0.25	0.12
Chemical Cancer Risk[2]	2×10^{-7}	2×10^{-8}	2×10^{-8}
Asbestos Risk[3]	--	--	2×10^{-8} to 3×10^{-7}

Commercial Worker Scenario			
	Exposure Area		
	PUC-2	**PUA-3**	**Site-Wide**
Non-Cancer HI[1]	0.040	0.035	0.015
Chemical Cancer Risk[2]~~Risk[1]~~	1×10^{-7}	1×10^{-7}	1×10^{-7}
Asbestos Risk[3]~~Risk[2]~~	--	--	2×10^{-9} to 4×10^{-8}

Maintenance Worker Scenario			
	Exposure Area		
	PUC-2	**PUA-3**	**Site-Wide**
Non-Cancer HI[1]	0.070	0.062	0.026
Chemical Cancer Risk[2]~~Risk[1]~~	1×10^{-7}	1×10^{-7}	1×10^{-7}
Asbestos Risk[3]~~Risk[2]~~	--	--	5×10^{-9} to 9×10^{-8}

~~**Construction Worker Scenario**~~			
	~~**Exposure Area**~~		
	~~**PUC-2**~~	~~**PUA-3**~~	~~**Site-Wide**~~
~~Non-Cancer HI[1]~~	~~0.48~~	~~0.25~~	~~0.12~~
~~Chemical Cancer Risk[1]~~	~~2×10^{-7}~~	~~2×10^{-8}~~	~~2×10^{-8}~~
~~Asbestos Risk[2]~~	~~--~~	~~--~~	~~2×10^{-8} to 3×10^{-7}~~

1 – HI = hazard index; the value presented is the total cumulative non-cancer HI; unless noted with an '(TO)' which indicates the value is the maximum target organ specific HI.

2 – Cancer risk is the maximum theoretical upper-bound incremental lifetime cancer risk (ILCR).
3 – Asbestos risks represent the cumulative asbestos risks for chrysotile and amphibole fibers. However, the risk estimates are dominated by amphibole, which was not detected at the Site in the confirmation samples. Asbestos risks were calculated for the entire site and not divided by exposure subarea.

Indoor air exposures are evaluated on a sample by sample basis, per NDEP requirements, using the surface flux data measurements. Because of this, the minimum and maximum surface flux risks and hazard index estimates are summed with those for soil to provide the range of cumulative risks and hazard indices shown above.

In addition, BRC has performed a more detailed site-specific evaluation of vapor intrusion potential at a comparison study area within the Eastside property. Given the results of this study, and based on the results of the tiered approach followed from USEPA's 2002 Vapor Intrusion Guidance, it has been demonstrated that there is no likelihood of adverse vapor intrusion into any indoor spaces that may be constructed in the Mohawk sub-area.

NDEP has recently determined that risk assessments for Eastside property sub-areas do not need to evaluate the pathway of radon migration from groundwater to indoor air for sub-areas with a separation distance of at least 15 feet between any current or future building structure base and the high water table (letter dated November 9, 2010, from Greg Lovato, NDEP, to Mark Paris, BRC). Therefore, given the depth to groundwater at the Site is at least 45 feet below ground surface (bgs), the intrusion of radon into indoor air is not evaluated in this human health risk assessment.

EVALUATION OF UNCERTAINTIES

Risk estimates are values that have uncertainties associated with them. These uncertainties, which arise at every step of a risk assessment, are evaluated in the report to provide an indication of the uncertainty associated with risk estimates. Uncertainties from different sources are compounded in the HHRA. Because the exposure assumptions and toxicity criteria are considered conservative, the risk estimates calculated in this HHRA are likely to overestimate rather than underestimate potential risks. A detailed discussion of these uncertainties is provided in the Uncertainty Analysis (Section 7) of the report.

POTENTIAL IMPACTS TO GROUNDWATER

Potential impacts to groundwater of residual chemicals in soil considering the future land use of the Site were also evaluated. Potential impacts were evaluated using the VLEACH and SESOIL vertical unsaturated zone migration models. Because future redevelopment will likely result in increased surface water infiltration due to sources such as buried water lines, sewer lines, irrigation lines and/or over-watering of parks and lawns, three surface water infiltration scenarios were evaluated: 1) baseline, pre-development conditions; 2) normal post-development conditions; and 3) post-development enhanced recharge due to overwatering of open space.

The modeled metals and organochlorine pesticides are not expected to reach groundwater within 100 years for any of the three infiltration scenarios. For other organics, dichloromethane, 1,2,4-trimethylbenzene, benzene, and aldehydes all are predicted to reach groundwater; however, dichloromethane, formaldehyde, benzene, and 1,2,4-trimethylbenzene are not projected to reach groundwater at concentrations that exceed their respective residential water human health comparison levels (BCLs). Although the modeling predicts that acetaldehyde will reach groundwater at (pore water) concentrations that exceed its residential water comparison level, acetaldehyde has not been detected in shallow groundwater in the vicinity of the Site, which would be expected given the length of time since the Eastside property was in use.

Other inorganics are predicted to exceed their respective comparison levels. However, based upon the differences in the model predicted results and observed measurements in groundwater, it is probable that processes not accounted for in the model are reducing/attenuating concentrations as they migrate through the vadose zone. Based on the elapsed time since any Site use, it is unlikely that the concentrations of organics and inorganics detected in Site soils represent a risk to groundwater quality.

SUMMARY

Based on the results of the 2008 and 2009 investigations, HHRA, and the conclusions in this report, exposures to residual levels of chemicals in soil at the Mohawk Sub-Area should not result in adverse health effects to any of the future receptors evaluated, or to groundwater quality beneath the Site. As a result, an NFAD for the Mohawk Sub-Area is warranted given the following conditions:

1. The NFAD does not pertain to groundwater. BRC retains the responsibility to address any environmental impacts to groundwater beneath the Site. As such, additional investigation may be necessary on the Site as it relates to BRC's responsibilities. BRC must be granted access to the site for activities such as well or soil boring installations or other investigative or remedial efforts.

2. The soils beneath 10 feet bgs of the current grading plan for the Site have not been evaluated to date. Accordingly, the NFAD does not pertain to soil below the top 10 feet of the current grading plan for the Site. The property owner should note that these soils should not be disturbed without additional investigation or evaluation.

3. The property owner should ensure that activities at the Site do not exacerbate existing, subsurface, environmental conditions.

4. The site use is otherwise suitable for purposes of residential, recreational, commercial or industrial use.

1.0 INTRODUCTION

Basic Remediation Company (BRC) has prepared this Human Health Risk Assessment (HHRA) and Closure Report for the Mohawk Sub-Area (Site) of the Basic Management, Inc. (BMI) Common Areas (Eastside) in Clark County, Nevada. The purpose of this report is to support a request for a No Further Action Determination (NFAD) by the Nevada Division of Environmental Protection (NDEP) for the Site. As presented in Section XVII.1.a. of the *Settlement Agreement and Administrative Order on Consent: BMI Common Areas, Phase 3* (AOC3; NDEP 2006), NDEP acknowledges that discrete Eastside areas may be issued an NFAD as remedial actions are completed for select environmental media. Any such request shall identify the remedial actions and other work completed at the property in question, the results of such remedial actions and other work, the proposed land use(s), and the reasons supporting the eligibility of the Property for an NFAD. This report provides this information for the Site.

BRC recognizes that the following conditions will ~~likely~~ be included in an Environmental Covenant~~necessary~~ as a condition to receiving an~~part of the~~ NFAD from NDEP:

1. The NFAD does not pertain to groundwater. BRC retains the responsibility to address any environmental impacts to groundwater beneath the Site. As such, additional investigation may be necessary on the Site as it relates to BRC's responsibilities. BRC must be granted access to the site for activities such as well or soil boring installations or other investigative or remedial efforts.

2. The soils beneath 10 feet below ground surface (bgs) of the current grading plan for the Site have not been evaluated to date. Accordingly, the NFAD does not pertain to soil below the top 10 feet of the current grading plan for the Site. The property owner should note that these soils should not be disturbed without additional investigation or evaluation.

3. The property owner should ensure that activities at the Site do not exacerbate existing, subsurface, environmental conditions.

4. The site use is otherwise suitable for purposes of residential, recreational, commercial or industrial use.

As stated in Section VI of NDEP's *Record of Decision, Remediation of Soils and Sediments in the Upper and Lower Ponds at the BMI Complex* (ROD; NDEP 2001), cleanup of the Site proceeded under Alternative 4B (soils transferred from the Site to a dedicated Corrective Action Management Unit [CAMU] within the BMI Complex),[2] as identified and described in Section 9 of the Remedial Alternatives Study (RAS) for the Eastside. The *Remedial Alternatives Study for Soils and Sediments in the Upper and Lower Ponds at the BMI Complex* (ERM 2000a) was submitted to NDEP in March, 2000. The RAS is documented via issuance of the ROD, dated November 2, 2001, by the NDEP.

This revision of the report, Revision 54, incorporates comments and recommended edits received from the NDEP, dated December 30, 2010 and January 4, 2011 on Revision 4 of the report, dated November 2010; the redline-strikeout version of the report received from NDEP on November 5, 2010 (Revision 3); comments and recommended edits received from the NDEP, dated July 9, 2010 on Revision 2 of the report; comments received from the NDEP, dated April 20, 2010, on Revision 1 of the report, dated March 2010; and comments received from the NDEP dated November 23, 2009, on Revision 0 of the report, dated October 2009. The NDEP comments and BRC's response to the July 2010 comments as well as the annotated comments received December 30November 5, 2010 and January 4, 2011 are included in Appendix A. Also included in Appendix A is a redline/strikeout version of the text showing the revisions from the redline/strikeout version of report received from NDEP on November 5, 2010 version of the report (Revision 4). An electronic version of the entire report, as well as original format files (MS Word and MS Excel) of all text, tables, modeling, and risk calculations are included on the report CD in Appendix B.

1.1 PURPOSE OF THE RISK ASSESSMENT

The purpose of the HHRA is to evaluate the potential for adverse human health impacts that may occur as a result of potential exposures to residual concentrations of chemicals in soil, groundwater, and air following remediation, and to assess whether any additional remedial actions are necessary in order to requestobtain an NFAD from the NDEP to allow development of the Site to proceed. The results of the risk assessment provide risk managers an understanding of the potential human health risks associated with background conditions and additional risks

[2] Under this alternative, the Site could be developed in accordance with the current development plan without the need for institutional controls within the Site.

associated with past Site activities.[3] Pending issuance of an NFAD by NDEP, development of the site is expected to proceed in a manner consistent with Environmental Covenants that attach to the property.

As presented in Section 2.5 of the *Sampling and Analysis Plan for the Mohawk Sub-Area* (BRC 2008a; hereinafter "SAP"; approved by NDEP on July 2, 2008), historical sampling identified areas within the Site that required remediation, and BRC conducted remediation in those areas prior to sampling in accordance with the SAP. It is BRC's intent that media requiring mitigation will have been addressed prior to conducting the risk assessment. The overall goal of the risk assessment presented in this report is to confirm that residual chemical concentrations are: (1) either representative of background conditions; or (2) do not pose an unacceptable risk to human health and the environment under current and anticipated future land use conditions. Findings of the HHRA are intended to support the site closure process.

For human health protection, BRC's goal is to remediate the Site soils such that they are suitable for residential uses, assuring health protective conditions at $1/8^{th}$-acre exposure areas. The $1/8^{th}$-acre area corresponds to the size of a typical residential lot size, as presented in U.S. Environmental Protection Agency (USEPA 1989) and is applicable to future Site conditions. It should be noted that although $1/8^{th}$-acre areas are the target for exposure, sampling has not occurred on many of these $1/8^{th}$-acre exposure areas, instead assumptions of similar populations across the Site (or areas larger than $1/8^{th}$-acre, as supported by the data) allows estimates to be applied to $1/8^{th}$-acre exposure areas. The decision can hence be made simultaneously for many $1/8^{th}$-acre exposure areas based on the data and documentation that the exposure areas can be aggregated. This can result in aggregation across the entire Site if concentration distributions appear to be relatively homogeneous and representative of a single population, or within separate sub-areas of the Site if those sub-areas exhibit different distributions. Note that an assumption was made in the SAP for the Mohawk Sub-Area (see Section 3.4 of that document) that the concentration distribution across the entire Site is relatively homogeneous. This assumption was

[3] The human health risk assessment presents incremental risks; that is, the risk in addition to background risk caused by Site contamination. Background risk is the risk to which a population is normally exposed, and does not include risks from Site contamination. Total risk includes both incremental and background risks. Because naturally-occurring constituents are typically included in a risk assessment (i.e., metals and radionuclides) the incremental risk will have some element of total risk included. However, because risks are only calculated for a sub-set of metal and radionuclides, a 'total' risk is not calculated. In instances where the incremental risk is calculated to exceed a cancer risk of 10^{-5} (typically when radionuclides are included in the risk assessment calculations), then a background risk, only including those naturally-occurring constituents included in the risk assessment, will also be calculated to provide context to the risk assessment results.

evaluated prior to performing the risk assessment and three exposure areas were subsequently identified (see Section 7.2.1).

Project-specific risk level and remediation goals consistent with USEPA precedents and guidelines for residential uses have been established, as summarized below. It should be noted that: 1) all comparisons to risk or chemical-specific goals are made on an exposure area basis consistent with likely exposure assumptions, and 2) these comparisons are demonstrated through the use of spatial statistical analysis to apply to each 1/8th-acre exposure area.

Human health risks are represented by estimated theoretical upper-bound cancer risks and non-cancer hazards derived in accordance with standard USEPA and NDEP methods. If the carcinogenic risks or non-cancer hazards exceed USEPA acceptable levels or NDEP risk goals, then remedial action alternatives must be considered. The acceptable risk levels defined by USEPA for the protection of human health, as identified in Section 9.1.1 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), are:

- Post-NFAD chemical and radionuclide concentrations in Site soils are targeted to have an associated residual, cumulative theoretical upper-bound incremental lifetime cancer risk (ILCR) level point of departure of 10^{-6}. This is the target risk goal for the project. For cases where NDEP identifies this goal to be unfeasible, it is BRC's understanding that the NDEP will re-evaluate the goal in accordance with USEPA guidance [USEPA 1991a]). In no case will the residual, cumulative theoretical upper bound carcinogenic risk levels exceed those allowed per USEPA guidance.

- Post-NFAD chemical concentrations in Site soils are targeted to have an associated cumulative, non-carcinogenic hazard index (HI) of 1.0 or less. If the screening HI is determined to be greater than 1.0, target organ-specific HIs will be calculated for primary and secondary organs. The final risk goal will be to achieve target organ-specific non-carcinogenic HIs of less than 1.0.

- Where background levels exceed risk level goals or chemical-specific remediation goals, metals and radionuclides in Site soils are targeted to have risks no greater than those associated with background conditions.

In addition to the risk goals discussed above, chemical-specific remediation goals have been established for lead and dioxins/furans. The target goal for lead is 400 milligrams per kilogram (mg/kg) for residential land use, which is a residential soil concentration identified by USEPA (based on the Integrated Exposure Uptake Biokinetic Model [IEUBK] model) as protective of a residential scenario (USEPA 2004a).

For dioxins/furans and polychlorinated biphenyls (PCBs) congeners, the USEPA toxicity equivalency (TEQ) procedure, developed to describe the cumulative toxicity of these compounds, is used. This procedure involves assigning individual toxicity equivalency factors (TEFs) to the 2,3,7,8 substituted dioxin/furan and PCB congeners. TEFs are estimates of the toxicity of dioxin-like compounds relative to the toxicity of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD), which is assigned a TEF of 1.0. Calculating the TEQ of a mixture involves multiplying the concentration of individual congeners by their respective TEF. One-half the detection limit is used for calculating the TEQ for individual congeners that are non-detect in a particular sample. The sum of the TEQ concentrations for the individual congeners is the TCDD TEQ concentration for the mixture. TEFs from USEPA (2000a) are used. Consistent with the Agency for Toxic Substances and Disease Registry (ATSDR) *Update to the ATSDR Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil* (2008a), the target goal for residential land use is the ATSDR screening value and NDEP residential Basic Comparison Level (BCL; NDEP 2010a) of 50 parts per trillion (ppt) TCDD TEQ.

1.2 METHODOLOGY AND REGULATORY GUIDANCE

This risk assessment follows the basic procedures outlined in USEPA *Risk Assessment Guidance for Superfund: Volume I—Human Health Evaluation Manual* (RAGS; USEPA 1989), and conforms to Chapter 9 (Risk Assessment Methodology–Human Health) of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010).[4] Various NDEP guidance documents are also relied on for the risk assessment (as referenced throughout this report). In addition, NDEP's BCLs (NDEP 2010a) are used for comparison of site characterization data to provide for an initial screening evaluation, to assist in the evaluation of data usability, and determination of extent of contamination. A full list of guidance documents consulted is provided in Section 6, and the Reference section at the end of this document.

This report also relies upon information provided in the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010). The main text of the *BRC Closure Plan* provides discussions of the following elements relative to the BMI Common Areas project as a whole:

[4] Note that Section 9 of the Closure Plan was updated in March 2010 and is currently under review by NDEP. To the extent possible, methods provided in the revised Section 9 are followed in this report.

- 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 5 of this report);
- 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 [2010 revision]);
- The data quality objectives (DQOs; Closure Plan Section 7[5]);
- The RAS 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 [2010 revision] and Section 10 for ecological); and
- Data quality assessment (Closure Plan Section 5).

As discussed in this report, the risk assessment for the Site is conducted primarily using the data collected during implementation of the SAP (BRC 2008a), and subsequent confirmation sampling events, which have been designed to produce data representative of the conditions to which current (non-remediation workers) or future users would be exposed.

1.3 REPORT ORGANIZATION

The risk assessment is composed of several sections that are outlined below. This section presents the purpose of the risk assessment, and the methods used in this assessment. Section 2 presents background on the Site, the environmental setting for the Site, and a summary of

[5] As noted in the *BRC Closure Plan*, per discussions with the NDEP, the DQO process is addressed, on an Eastside sub-area by sub-area basis (for soils), in the respective sub-area SAPs developed for each sub-area relating to the soils cleanup. Therefore, the DQO process for the Site is presented in the SAP and is not repeated here. This DQO process was incorporated in the data usability/data adequacy evaluation for the Site data used in the risk assessment.

previous investigations. Section 2 also presents the CSM for the risk assessment. This includes identification of potentially exposed populations, and the potential pathways of human exposure.

Section 3 presents the confirmation data collected in 2008 and 2009, as well as discussions on the various remedial actions that were done at the Site. Section 4 presents the data evaluation procedures used, including statistical analysis of background concentrations, and data usability and quality. Section 5 presents the selection of COPCs recommended for further assessment, including comparisons of Site metals and radionuclides to background conditions.

Section 6 presents the HHRA. This includes relevant statistical analyses, determination of representative exposure point concentrations, applicable fate and transport modeling, exposure assessment, toxicity assessment, and risk characterization. In Section 7, the uncertainties associated with the risk assessment are discussed. In each risk estimate, a degree of uncertainty is introduced as a result of the limitations of the exposure and toxicity information, the modeling approaches, and the data used to conduct the evaluation.

A summary of the risk assessment results is provided in Section 8. The results of the analysis of potential impacts to groundwater are presented in Section 9. The data quality assessment for the HHRA is presented in Section 10. A summary is provided in Section 11, with a list of references provided in Section 12, followed by tables, figures, and appendices.

2.0 SITE DESCRIPTION

This Section presents a description of the Site, including Site background and history, the environmental setting, and a summary of previous investigations. The area known as the "BMI Common Areas," of which the Mohawk Sub-Area is a part, is delineated in Appendix A of the AOC3 (NDEP 2006). The subject Site is near the BMI Industrial Complex, in Clark County, Nevada, approximately 13 miles south of the city of Las Vegas, and adjacent to and northeast of the City of Henderson (Figure 1). The total extent of the Site is 54.7 acres. The Site is the easternmost portion of the BMI Common Areas, which lies to the east of Boulder Highway and to the north of Lake Mead Parkway and consists of:

- Land on which unlined wastewater effluent evaporation/infiltration ponds (and associated conveyance ditches) were built and into which various plant wastewaters were discharged from 1942 through 1976;
- Land on which unlined wastewater effluent ponds were constructed but which were never used; and,
- Land that has remained desert.

2.1 SITE HISTORY

The BMI Common Areas contained a network of ditches, canals, flumes, and unlined ponds that were used for the disposal of aqueous waste from the original magnesium plant and, later, other industrial plants and the municipality adjacent to it. Effluent wastes discharged to the ponds of the BMI Common Areas from the war-time Basic Magnesium operations can be characterized as salts from the production process (chloride salts of a variety of metals and radionuclides); organic solids; and inorganic solids and dissolved components of various types. Chlorinated organic chemicals were included in the effluent. Notable processes that contributed to the waste stream from the plants that succeeded Basic Magnesium included effluents from the manufacture of the following types of products: chlorine and sodium hydroxide (caustic soda); a variety of chlorate, perchlorate compounds, and halogenated boron compounds; manganese dioxide; titanium and related compounds; and a variety of pesticides. Among these wastes were salts; organic and inorganic chemicals; and metals. A more detailed description of these processes and their effluents is found in Sections 2.2 and 2.3 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010).

2.2 ENVIRONMENTAL SETTING

The BMI Common Areas and Complex are located in Clark County, Nevada, and are situated approximately two miles west of the River Mountains and one mile north of the McCullough Range. The local surface topography slopes in a westerly to northwesterly direction from the River Mountains and in a northerly to northeasterly direction from the McCullough Range. Near the BMI Common Areas and Complex, the surface topography slopes north toward the Las Vegas Wash. According to the Nevada Bureau of Mines and Geology (NBMG) *Las Vegas SE Folio Geologic Map (1977) and the Geologic Map of the Henderson Quadrangle, Nevada* (NBMG 1980), the River Mountains and McCullough Range consist of volcanic rocks: dacite in the River Mountains and andesite in the McCullough Range.

The Site (Figure 2) comprises approximately 54.7 acres of undeveloped land with very little surface relief that is gently sloping to the northwest. The Site is currently undeveloped, except for the portion containing a temporary informational kiosk, and Mohawk Drive which passes through the Site. Site conditions within the Site are variable. As depicted on Figure 2, the northern portion of the Site has no features of historical use; this portion of the Site has historically been undeveloped and is not known to have been associated with industrial operations at the BMI Complex. In contrast, the southern portion of the Site contains a portion of the Upper Ponds, which were once associated with historical conveyance and/or disposal of operations effluent and cooling water by companies operating at the BMI Complex. The individual ponds are distinct and typically defined by berms along the north, east, and west sides. In general, the berms are relatively uniformly-shaped, often with angular corners showing little evidence of erosion. The berms are typically four to six feet tall. In places, portions of the berms were excavated during remedial activities.

The native soils within the ponds are compacted, poorly-sorted, non-plastic, light brown to red silty sand with varying amounts of gravel. However, prior to 2001, within portions of several ponds, the surficial material consisted of very fine material that graded in color from greenish-gray to light yellowish-brown; in places, the ground surface was white. This discolored material was interpreted to be residual sediment associated with historic effluent disposal in the ponds. As discussed below, this material has been removed from these ponds.

2.2.1 Site Location, Climate and Physical Attributes

The Site is in the northeast quarter of Section 5, Township 22 South, Range 63 East Mount Diablo Base and Meridian (MDBM). The Site is in the Las Vegas Valley, a broad alluvial valley that occupies a structural basin in the Basin and Range Physiographic Province. The valley is about 1,550 square miles in size, and the structural and topographical axis is aligned approximately northwest to southeast. The eastern edge of the valley is about five miles west of Lake Mead, a major multipurpose reservoir on the Colorado River. The Las Vegas Valley is surrounded mostly by mountains, ranging from 2,000 to 10,000 feet higher than the valley floor. The valley floor ranges in elevation from about 3,000 feet above mean sea level (msl), in the west at the mountain front, to 1,500 feet above msl, in the east at the Wash (Southern Nevada Water Authority [SNWA] 1996). The surrounding mountain ranges are:

- Sheep Range to the north;
- Frenchman and Sunrise Mountains to the northeast;
- River Range to the east;
- McCullough Range to the south; and
- Spring Mountains and Sierra Nevada Mountains of California to the west.

The Site is approximately 1.5 miles south of the Las Vegas Wash (Figure 1) and adjacent to and northeast of the city of Henderson, and approximately 13 miles southeast of the city of Las Vegas.

The Site is located in a natural desert area, where evaporation/evapotranspiration rates are very high, due to influence by high temperatures, high winds, and low humidity. Precipitation in this area averages approximately 0.4 inch per month or 4.8 inches per year (WRCC 2008). As discussed in the *Sources/Sinks and Input Parameters for Groundwater Flow Model Technical Memorandum* (DBS&A 2009), in arid settings, recharge from precipitation is typically a small percentage of annual precipitation. Based on values from Scanlon *et al*. (2006), recharge as a percentage of annual precipitation for the Site area was estimated to be between 0.1 percent and 5 percent. Recharge is thus estimated to be between 0.0048 inch and 0.24 inch per year.

According to the SNWA document entitled *Extent and Potential Use of the Shallow Aquifer and Wash Flow in Las Vegas Valley, Nevada* (1996) annual potential evapotranspiration exceeds 86 inches. Pan evaporation data measured from 1985 through 1988 were as high as 17 inches per month; the months with the highest evaporation (May through September) coincide with those months with the highest intensity of rainfall (Law Engineering 1993). However, evaporation and evapotranspiration are functions of vegetation type and density and other site-specific conditions (especially anthropogenic conditions). Therefore, site-specific evaporation/evapotranspiration may vary from these regional conditions. These climatic parameters may be appreciably influenced by future development (*i.e.*, vegetation destruction, pavement extent, and construction).

Wind flow patterns are fairly consistent from one month to another, but vary slightly between measurement stations (McCarran International Airport and a station west of 14th Street adjacent to the employee parking lot at the Titanium Metals Corporation [TIMET] plant entrance). For the McCarran station, the prevailing wind direction is from the southwest. The TIMET station also showed a predominant wind direction from the southwest, with southeasterly components. Wind velocity at both locations tends to be the highest in the spring and early summer months (April through July).

2.2.2 Geology/Hydrology

As is common throughout the Las Vegas Valley, Site soils are primarily sand and gravel, with occasional cobbles. 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 bgs. Lithologic cross sections are shown on Figures 3 and 4.

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.

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. The depth from the surface to first groundwater at the Site is greater than 45 feet bgs (see Figure 2). Wells completed in the Aa are not highly productive, with sustainable flows typically less than five gallons per minute.

2.2.3 Surface Water

Surface water flow occurs for brief periods of time during periodic precipitation events. The Las Vegas Wash collects storm water, shallow groundwater, urban runoff, and treated sewage effluent. It is the receiving water body for all major Las Vegas area discharges. In dry weather, flow in the Wash comprises mainly treated effluent from the Clark County Water Reclamation District (76 million gallons per day) and the City of Las Vegas Water Pollution Control Facility (80 million gallons per day). The City of Henderson contributes a smaller amount (8.4 million gallons per day) (Las Vegas Wash Coordination Committee 2000). Discharge from these sources is sufficient to maintain surface flows in the Wash throughout the year. In winter, low-intensity rains fall over broad areas; in the spring and fall, thunderstorms provide short periods of high-intensity rainfall. The latter create high run-off conditions. Run-off is also affected by human development, which tends to 1) create conduits for surface water flow, and 2) decrease infiltration into native soils by covering them with man-made structures or materials (*e.g.*, pavement).

Under current conditions, it is unlikely that surface waters generated within the Site will migrate via overland transport to the Las Vegas Wash from the Site due to (1) the distance to the Wash (greater than 1.3 miles); (2) the intervening presence of the Tuscany development between the Site and the Wash, and (3) the presence of the former effluent ponds (bermed depressions) that tend to retain overland surface water flow. After development, the ponds will have presumably been removed; however, there will still be a low likelihood that surface waters generated within the Site will migrate to the Las Vegas Wash due to the other factors noted above, which will still apply (i.e., distance to Wash and Tuscany development). In addition, the storm water management features that will be installed as part of the future development at the Site will also reduce the potential for surface water run-off from the Site. These storm water controls will be consistent with State and Federal requirements and permits.

2.3 SUMMARY OF HISTORICAL INVESTIGATIONS

Several historical field investigations were conducted at the Site to characterize the nature and extent of chemical occurrence in Site soils and groundwater. Based on these sampling events, BRC identified portions of the Site that warranted remediation for protection of human health and the environment,[6] and subsequently performed remediation in those areas. The SAP presents a detailed analysis of data collected during the historical field investigations conducted at the Site, which are as follows:

- The BMI Common Areas Environmental Conditions Investigation (ECI) conducted during March and April 1996 (dataset 1a). The soil investigation activities were performed in accordance with a work plan approved by NDEP in February 1996 (ERM 1996a). The soil sampling results for the investigation activities were presented in the ECI report (ERM 1996b);

- Additional soil sampling conducted in December 1998 to better delineate the extent of soil requiring remediation (data were not validated, all soil removed during an Interim Remedial Measure [IRM]). These data were for internal purposes only, and were not collected under a formal NDEP-approved work plan. The results were summarized in the IRM Completion Report (ERM 2000b);

- Additional soil sampling conducted in May 1999 to establish the extent of antimony, manganese and thallium occurrence in Site soils (dataset 6c). These data were also not collected under a formal NDEP-approved work plan. The results were summarized in the IRM Completion Report (ERM 2000b);

- Confirmation soil sampling conducted after the IRM in October 1999 (dataset 7a). These soil sampling activities were performed in accordance with ERM's work plan dated June

[6] It should be noted that this determination was based on comparison of chemical detections to then-applicable human-health risk-based screening levels.

1999, and approved by NDEP on July 23, 1999. The soil sampling results for the investigation activities were presented in the IRM completion report (ERM 2000b). Data validation results are presented in the DVSR for dataset 7a, which was approved by NDEP on October 17, 2006;

- Discrete/composite soil investigation conducted in July 2000 (dataset 8a). The soil investigation activities were performed in accordance with ERM's work plan submitted in July 2000 and approved by NDEP on July 18, 2000. The soil sampling results for the investigation activities were presented in letters to NDEP dated August 11, 2000 (soil sampling results) and August 28, 2000 (statistical analysis of results). Data validation results are presented in the DVSR for dataset 8a, which was approved by NDEP on October 10, 2006;

- Supplemental soil investigation conducted in May 2001 (datasets 19 and 20c). These data were not collected under a formal NDEP-approved work plan. The results are provided in Appendix B. Data validation results are presented in the DVSRs for datasets 19 and 20c, which were approved by NDEP on December 8, 2006 and February 5, 2007, respectively; and

- Waste characterization conducted in July and August 2006 (dataset 39). The soil investigation activities were performed in accordance with BRC's SAP submitted on June, 29 2006 and approved by NDEP in July 2006. The soil sampling results for the investigation activities were presented in the *Remedial Action Plan* (RAP; BRC 2007). Data validation results are presented in the DVSR for dataset 39, which was approved by NDEP on November 3, 2006.

During these investigations, soil samples at various depths were collected and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), organochlorine pesticides, organophosphorous pesticides, ~~polychlorinated biphenyls (~~PCBs~~)~~, chlorinated herbicides, dioxins/furans, metals, perchlorate, and/or radionuclides. The data from these investigations have been validated, except as noted above. Data validations are presented in the respective DVSRs for each of the datasets, which have been approved by NDEP. The results of these field sampling events are provided in the Site database included on the report CD in Appendix B.

Many of these historical samples were composite samples all previous soil samples (other than limited soil samples collected during the 2006 waste characterization sampling) were collected at least seven years ago, none of the previous samples were analyzed for all of the major chemicals or chemical families, and several used different analytical methods. Sampling performed as described in the SAP relied on the statistical methodologies presented in the *Statistical Methodology Report*[7] (NewFields 2006). Therefore, because of these various factors, the data collected as part of the SAP in 2008 and 2009 (as discussed in Section 3) are considered more representative of current Site conditions,[8] and are relied upon for risk assessment purposes as described in this report.

2.4 HISTORICAL REMEDIAL ACTIVITIES

To expedite restoration of the Site, BRC elected to perform an IRM in 1999. This IRM was performed following the procedures specified in the NDEP-approved *Mohawk Area IRM Workplan* (ERM 1999), which was approved by NDEP on July 23, 1999. IRM activities consisted of excavation of the impacted shallow soils, transportation to a secured location within the Upper Ponds outside the Site boundaries, and treatment to prevent generation of wind-blown dusts and runoff.

The majority of soil excavation in the Site was performed during October and November of 1999, with the balance completed by March 2000. Excavation was conducted in ponds UA-01 through UA-03, UB-01 through UB-03, UC-01 and UC-02, and UD-01 and UD-02. In addition to the removal of discolored sediments, a minimum of six inches of soil was removed throughout the IRM area. Based on the results of confirmation sampling following the IRM, an additional six inches of soil were excavated and removed from ponds UC-01 and UC-02. A total estimated 16,000 cubic yards of soil were excavated and removed from the Site. Results of the IRM for the Site were presented in the IRM completion report (ERM 2000b); this report has not been approved by NDEP.

The IRM soil remediation approach discussed above consisted of excavation of contaminated shallow soils and their temporary placement adjacent to the Site pending ultimate disposal in a CAMU designated solely for these soils as discussed more fully in the CAP (BRC 2006). In May 2008, BRC performed additional excavation prior to implementation of the SAP. The 2008 additional excavation occurred at pond PUE-01, which was not excavated during the 1999/2000 IRM and which had residual discolored sediments. Approximately six to 12 inches of

[7] The *Statistical Methodology Report* describes the statistical methods that are being used to confirm the final soils closure at each of the Eastside sub-areas of the BMI Common Areas.
[8] This determination is also based on the data usability evaluation summarized in Section 4.2.

sediments/soil were excavated and removed from both the western and eastern portions of PUE-01, which is now bisected by Mohawk Drive. This excavation and soil removal occurred from May 16 through 23, 2008. As such the IRM and the additional excavation at pond PUE-01 constitute the baseline remediation for this Site.

2.5 CONCEPTUAL SITE MODEL

The CSM is a tool used in risk assessment to describe relationships between chemicals and potentially exposed human receptor populations, thereby delineating the relationships between the suspected sources of chemicals identified at the Site, the mechanisms by which the chemicals might be released and transported in the environment, and the means by which the receptors could come in contact with the chemicals. The CSM provides a basis for defining DQOs, guiding site characterization, and developing exposure scenarios. The Site history, land uses, climate, physical attributes, including geology and hydrogeology, and various field investigations are fully described in Sections 2.1 through 2.4 of this HHRA. The site history and environmental conditions of the BMI Common Areas are described in Sections 2 and 4 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), and in the Site-Wide CSM (in preparation).

The HHRA evaluates current and potential future land-use conditions. The Site is currently undeveloped, except for a portion of the temporary informational kiosk, and Mohawk Drive, which passes through the Site. The potential on-site and off-site receptors are currently trespassers, occasional on-site workers, and off-site residents. Exposures to current receptors 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, parks, schools, commercial development, 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. Future receptors identified as "on-site receptors" are defined as receptors located within the current Site boundaries (Figure 1), 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 2.5.3.

The current development plan for the Site is shown on Figure 5. To construct parks, commercial structures and residences, the land will be cut and/or filled, paved with roads or foundations, and nurtured with imported top soils[9] as needed. Figure 6 shows the current grading plan for the Site, indicating which areas will be filled and which areas will be cut.

The CSM includes the planned development of the Site. All potential transfer pathways are included in the CSM. The human health aspects of the CSM for the Site are presented on Figure 7.

Numerous release mechanisms influence chemical behavior in environmental media. Under both current and future land use conditions at the Site, the principal release mechanisms involved are:

- Vertical migration in the vadose zone
- Storm/surface water runoff into surface water and sediments
- Fugitive dust generation and transport
- Vapor emission and transport
- Uptake by plants

Although these release mechanisms are identified here, no quantitative modeling is presented in this Section. Instead, those primary release mechanisms identified for particular receptors are presented in this Section, and are quantitatively evaluated in Section 6.

2.5.1 Impacted Environmental Media

Environmental media at the Site consist of five categories: surface soil, subsurface soil, groundwater, indoor air, and ambient outdoor air. Samples relative to Site baseline conditions have been collected at the Site for soil. Generally, impacted soil is the source of chemical exposures for other media at the Site.

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)

[9] 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.

will not occur in the post-redevelopment phase. Therefore, exposure pathways relating to this type of use are incomplete.

Although direct exposures to groundwater will not occur; indirect exposures are possible. The primary indirect exposure pathway from groundwater is the infiltration of VOCs from soil and groundwater to indoor air. In addition, residual levels of chemicals in soil may leach and impact groundwater quality beneath the Site.

2.5.2 Inter-Media Transfers

Exposure to Site chemicals may be direct, as in the case of impacted surface soil, or indirect following inter-media transfers. Impacted soil is the initial source for inter-media transfers at the Site, which can be primary or secondary. For example, upward migration of VOCs from impacted subsurface soil into ambient air thereby reaching a point of human inhalation represents a secondary inter-media transfer.

These inter-media transfers represent the potential migration pathways that may transport one or more chemicals to an area away from the Site where a human receptor could be exposed. Discussions of each of the identified potential transfer pathways are presented below. Figure 7 presents a conceptualized diagram of the inter-media transfers and fate and transport modeling for the Site.

Five initial transfer pathways for which chemicals can migrate from impacted soil to other media have been identified. The first of these pathways is volatilization from soil and upward migration from soil into ambient air. Ambient air can be both indoor and outdoor air. The pathway of volatilization from both soil and groundwater and upward migration into ambient air was evaluated using the surface flux measurements collected. The secondary transfer pathway is downward migration of chemicals from soil to groundwater. The third transfer pathway is migration of chemicals in surface soil via surface runoff to sediments or surface water bodies. However, as discussed in Section 2.2.3 because of the nature of the ponds and their construction, the distance from the Site to the Wash, and the intervening housing developments, it is unlikely that surface waters drain to the Las Vegas Wash from the Site. Therefore, the surface water pathway was not evaluated in this risk assessment. The fourth transfer pathway is on-site fugitive dust generation. Finally, chemicals in soil can be transferred to plants grown on the Site via uptake through the roots. The plant uptake pathway is typically evaluated for residential receptors.

2.5.3 Potential Human Exposure Scenarios

The following section summarizes land use and the human exposure scenarios that are assessed herein.

2.5.3.1 Current and Future Land Use

Current receptors that may use the Site include trespassers, occasional on-site workers, and off-site residents. Current exposures to native soils at the Site are likely to be minimal. In addition, exposures to future receptors will be much greater than current exposures. For example, future receptors evaluated in the HHRA include on-site residents who are assumed to be exposed to soil at the Site for 350 days per year for 30 years, which is much greater than any current exposures. In addition, as discussed above, exposures to current receptors are being managed through site access control. Therefore, a current land use scenario is not quantitatively evaluated in this risk assessment.

USEPA risk assessment guidance (USEPA 1989) states that potential future land use should be considered in addition to current land use when evaluating the potential for human exposure at a Site. As indicated above, under the prospective redevelopment plan, the Site may be used for a variety of potential purposes, including residential housing, parks, schools, commercial development, and streets. The entire Site will be enhanced by restoration and redevelopment once remediation is complete.

The entire Eastside property will be redeveloped in several phases. Throughout the redevelopment process, the sub-areas of the Site will be redeveloped sequentially. Future receptors identified as "on-site receptors" are defined as receptors located within the current Site boundaries (Figure 1), while future "off-site receptors" are those located outside the current Site boundaries. "On-site receptors" are those future receptors that will be located within the sub-area under evaluation. "Off-site receptors" are those future receptors that will be located outside of the sub-area under evaluation that may have complete exposure pathways associated with sources within the sub-area. As noted above, remediation of the Site is to on-site residential standards. Consequently, risks to off-site receptors are addressed qualitatively in this risk assessment.

2.5.3.2 Identification of Potentially Exposed Populations and Pathways

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 presented on Figure 7 and summarized below. For a complete exposure pathway to exist, each of the following elements must be present (USEPA 1989):

- A source and mechanism for chemical release;
- An environmental transport medium (*i.e.*, air, water, soil);
- A point of potential human contact with the medium; and
- A route of exposure (*e.g.*, inhalation, ingestion, dermal contact).

As presented in Section 9 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), the following are the primary exposure pathways for each of the potential receptors following remediation at the Site.

- Adult and child residents[10]
  - incidental soil ingestion*
  - external exposure from soil†
  - dermal contact with soil
  - consumption of homegrown produce*
  - outdoor inhalation of dust*‡
  - indoor inhalation of dust*‡
  - outdoor and indoor inhalation of VOCs from soil and groundwater

- Indoor commercial workers
  - incidental soil ingestion*
  - external exposure from soil†
  - indoor inhalation of VOCs from soil and groundwater

- Outdoor maintenance workers
  - incidental soil ingestion*
  - external exposure from soil†
  - dermal contact with soil
  - outdoor inhalation of dust*‡
  - outdoor inhalation of VOCs from soil and groundwater

[10] On-site receptors evaluated quantitatively; off-site receptors evaluated qualitatively.

- Construction workers
  - incidental soil ingestion*
  - external exposure from soil†
  - dermal contact with soil
  - outdoor inhalation of dust*‡
  - outdoor inhalation of VOCs from soil and groundwater

*Includes radionuclide exposures.
†Only radionuclide exposures.
‡Includes asbestos exposures.

Although trespassers/recreational users and downwind off-site residents are other potential receptors identified in the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007, Section 9 revised in March 2010), exposures for these receptors are less than those evaluated above. As noted in Sections 9.1.1 and 9.7.1 of the Closure Plan, potential exposures for trespassers/recreational users will only be evaluated in areas of the BMI Common Areas that are designated as recreational end use (specifically the Western Hook-Open Space sub-area shown on Figure 1). Also, as noted in Section 9.5.4 of the Closure Plan, off-site dust levels based on USEPA's model are much lower than those generated for on-site construction-related activities. Therefore, risks evaluated for an on-site construction worker, as are performed in this HHRA, are considered protective of off-site residents. Thus, trespassers/recreational users and downwind off-site receptors are not evaluated further in this report.

3.0 CONFIRMATION DATA PROCESS AND SUMMARY

Based on the historical data for the Site, no additional remediation was proposed prior to implementing the sampling presented in the SAP beyond the historical remediation activities that are described in Section 2.4. Decisions for additional excavation during SAP implementation were based on the initial data (discussed below) in accordance with the Risk Assessment Methodology provided in the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007, Section 9 revised in March 2010). The following is the initial 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).

3.1 INITIAL CONFIRMATION SOIL SAMPLING

As per Section 2 of the *Statistical Methodology Report*, the initial confirmation sampling at the Site was conducted on the basis of combined random and biased (judgmental) sampling, as follows:

- **Stratified Random Locations:** For this purpose, the Site was covered by a 3-acre cell grid network. Within each 3-acre cell, a sampling location was randomly selected. Sampling locations were randomly selected within both full and partial grid cells if they were 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 were included in the adjacent sub-area SAPs). The main objective of this stratified random sampling was to provide uniform coverage of the Site.

- **Biased Locations:** Additional sampling locations were selected within or near small-scale contamination points of interests, including but not limited to previous debris locations, ponds, and berms. For this purpose, the randomly selected location within a corresponding 3-acre cell was adjusted in order to cover a nearby point of interest. In the event that currently unknown impacted areas were identified during remediation, the presence of these areas were drawn to NDEP's attention, and the need for additional biased sampling points to address those areas was evaluated, and the sampling program modified as needed.

A reconnaissance of the Site was performed to check the Site for environmentally significant features such as debris piles or stained soil. Biased sampling locations for the Site were based on the outcome of this reconnaissance. Figure 8 and accompanying Table 1 show the random sampling locations collected within the Site. No debris piles or other stained soil locations were observed on the Site, however, some other site features were identified for additional, biased, sampling. Rationale for each of the biased sampling locations is presented below:

- MC1-J01 and MC1-J09 through MC1-J17 were was added to provide additional coverage within former ponds;
- MC1-J02; MC1-J03, MC1-J04, MC1-J06, MC1-J07, and MC1-J08 were added to provide coverage within various pond berms;
- MC1-J05 and MC1-J20 were added to provide coverage within a drainage channel along the northeastern Site boundary; and
- MC1-J18 and MC1-J19 were added to provide additional coverage within former ponds west of Mohawk Drive.

The following discusses the multi-depth soil samples that were collected and analyzed for the Site-related chemical (SRC) list at each selected location. Samples were collected at:

1. Existing surface (0 ft bgs) and 10 ft bgs for sample locations in relatively flat (un-graded) locations;
2. Existing surface (0 ft bgs), post-grading surface, and post-grade 10 ft bgs for sample locations with substantial grading (that is, cut depths greater than two feet[11]) and the uppermost sampled soil is expected to be used as surface fill;
3. Existing surface (0 ft bgs) and 10 ft 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 ft bgs) and 10 ft bgs for sample locations in an area expected to be covered by fill material.

Additionally, at two sample locations (MC1-J11 and MC1-AY36), one within a pond and one outside the ponds, soil physical parameter data were collected at 20 feet and every subsequent 10 feet until groundwater was reached, whichever was shallower.

[11] Because sample collection was over a two to three foot depth interval, sample locations with an anticipated cut depth less than three feet were only sampled at the surface and one post-grade subsurface depth. The sample depth designation (*i.e.*, 10 feet bgs) is based on the center depth of the sample collection interval.

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

- **Rule 1: IF** the sample was 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 is used to designate its soil layer grouping.
- **Rule 2: IF** the sample was 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 is classified as a surface (0-2 ft depth) sample, and the soil layer grouping of the remaining deeper sampled soil is 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 is classified as a fill material sample, a final (post-graded) surface sample is classified as a surface (0-2 ft depth) sample, and the soil layer grouping of the remaining deeper sampled soil is determined based on the difference between its elevation and the final (post-graded) surface elevation in that part of the Site.
- **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 is classified as both a fill material sample and as a surface (0-2 ft depth) sample, and the soil layer grouping of the remaining deeper sampled soil is 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 9. The current Site grading plan is shown on Figure 6. It should be noted that this is the most current plan available, but not necessarily the final grading plan.[12] The sample-specific collection depths are presented in Table 1.

[12] Note that the grading plan will be reflected in an Environmental Covenant for the Site as a condition to receiving an NFAD from NDEP.The final grading plan will be provided to NDEP when available. Differences between the current grading plan and the final grading plan will be identified and possible impacts on the HHRA results discussed with NDEP.

As noted above, soil samples were generally collected over a two to three foot depth interval. This was because of the amount of sample volume required for all the analyses to be completed. The 10 ft bgs (and deeper) samples were collected in 2-3 ft intervals centered on 10 ft (or centered on the deeper sample depth as indicated in Table 1). Confirmation samples, which usually have a shortened analyte list were collected over a smaller sample interval. Because surface releases of chemicals have been identified as the source of elevated concentrations at the Site, historical contamination is usually found predominately in surface soils. The primary objective of remedial actions at the Site was to remove surface soils that were impacted by Site-related surface releases of chemicals. Therefore, higher concentrations are expected (and have been generally observed) in surface samples. In order to adequately characterize the vertical extent of possible contamination, one or more deeper samples were also collected at each sample location, as described above.

As discussed in Section 6.1.1, given the uncertainties in the current grading plan, samples were classified into five different exposure depths. These different soil exposure depth classifications are considered to represent all possible exposure potential for all receptors, and thus a reasonable worst case scenario has been assessed. The five different exposure depths evaluated were the following:

- All data; includes surface, subsurface and fill sample depths/locations, representative of potential exposures to all soil depths to a maximum post-grading depth of 10 feet bgs (representative of Site exposures if fill material remains on-site);
- Data classified as fill material only; that is, sample locations with substantial grading (cut depths greater than two feet) and the uppermost sampled soil is expected to be used as surface fill, including off-site;
- Data classified as fill material and/or surface soil, sample locations with cut depths less than two feet, therefore, given the sample depth interval soil could represent either fill or post-grading surface soil;
- Data classified as surface soil only, includes surface sample locations where no grading will occur, or sample locations where fill material will be placed, with a subsurface sample (those samples collected less than 10 feet bgs) collected at the post-grading surface; and
- All data excluding data classified as fill material, representative of exposure to all post-grading soil to a maximum post-grading depth of 10 feet bgs.

These different soil exposure classifications are considered to represent all possible exposure potential for all receptors, including use of soil as fill material elsewhere in the Eastside property, based on the future grade and use of Site soils. See Section 6.1.1 regarding how these difference exposure depths are considered in the HHRA.

Initial sampling for the Site was conducted in June/July 2008. All soil samples were tagged in the database with numeric designations of their corresponding assigned soil layer grouping based on these rules. The number of soil samples collected varies for different analytes and analytical suites. For example, for arsenic, initiallyInitially, 102 soil samples were collected from 38 soil boring locations (including field duplicates, but not including deep samples collected for soil physical parameter data). This included 18 random and 20 biased sample locations.; At these 38 locations, BRC initially collected 4749 surface samples (one at each location, and duplicates at nine locations) and 55 subsurface soil samples (two subsurface sampling intervals at 17 of the 38 soil boringthose locations). As presented in Table 1, these 102104 samples represent 42 fill material (including nine duplicates), 43 surface (including five duplicates), and 38 subsurface soil samples.[13] Twenty-one of the surface soil samples (including duplicates) also represent Fill samples (see discussion above regarding Fill samples).[14] An additional eight10 supplemental samples (including one duplicate) and 2518 confirmation samples (including three duplicates) were subsequently collected (see Section 3.3), bringing the total number of arsenic samples for the Site to 135 (102 initial samples, eight supplemental samples, and 25 confirmation samples).[15] Of the 135 arsenic samples, 21 were in remediated areas and removed from the risk assessment dataset; thus, as shown in Table 4, there are 114 arsenic samples included in the human health risk assessment dataset. The numbers of soil samples included in the human health risk assessment dataset for each analyte are shown in Table 4.132.[16] All sample results, from which

[13] Note that in some cases a soil sample may be considered both a fill sample and a surface sample (as indicated in Table 1). 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.

[14] 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).

[15] Note that in Table 4, which summarizes the post-remediation HHRA samples, the number of samples reported in that table for a given analysis does not always equal 135. This is due to 1) exclusion of data that were removed during remediation activities; 2) inclusion in the final dataset of supplemental samples collected to assess the extent of chemical impacts in certain areas; 3) certain analytes were not included in the subsurface samples, as noted in the following section; and 4) rejected data are excluded.

[16] Note that in Table 4, which summarizes the post-remediation HHRA samples, the number of samples reported in that table for a given analysis does not always equal 132. This is due to 1) exclusion of data that were removed during remediation activities; 2) inclusion in the final dataset of supplemental samples collected to assess the extent of chemical impacts in certain areas; 3) certain analytes were not included in the subsurface samples, as noted in the following section; and 4) rejected data are excluded.

the total number of samples can be found for each analyte, are presented electronically on the report CD in Appendix B, and in Tables B-1 through B-12. –As discussed below in Section 3.5, different data distributions were identified for cobalt in PUC-2 and vanadium in PUA-3; therefore, these ponds were evaluated separately for these two metals. The numbers of samples for these two areas were 13 for cobalt in pond PUC-2 and eight for vanadium in pond PUA-3.

3.2 CHEMICALS SELECTED FOR ANALYSIS

The analyte list for soil samples collected during the initial June/July 2008 investigation comprised the BRC project SRC list, and was consistent with the analytical program presented in Section 3 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010)[17] and Table 2, with the following exceptions for this Site:

- Asbestos and dioxins/furans were only analyzed for in surface soil samples; (note that all samples collected at the Site were discrete samples, with the exception of asbestos samples, which were composite samples collected as per the NDEP-approved Standard Operating Procedure [SOP]-12 as provided in the *Field Sampling and Standard Operating Procedures* [FSSOP; BRC, ERM and MWH 2009]).

- USEPA Method 8141A for organophosphorous pesticides was not 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 any soil sample records within the Site. The few detections are well below NDEP BCLs;

- USEPA Method 8151A for chlorinated herbicides was not conducted. There have been no detections of these compounds in over 1,400 soil sample records from throughout the Eastside. Detection limits are below NDEP BCLs;

- HPLC Method for organic acids was not conducted. There have been only three detections of these compounds in 567 soil sample records (<0.5 percent) from throughout the Eastside. NDEP BCLs have not been established for these compounds;

- USEPA Method 8015B for non-halogenated organics (*i.e.*, methanol and glycols) was not conducted. There have been only five detections of these compounds in 420 soil sample

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

records (one percent) from throughout the Eastside. The few detections have been well below NDEP BCLs;

- USEPA Method 8015 for total petroleum hydrocarbons (TPH) was not 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 There are no indications of possible TPH source areas, for example, debris, abandoned vehicles, in the Site. While TPH was not analyzed for, its components were 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 were analyzed for: radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238.

The soil analyte list consisted of 319 of the 418 compounds (including water only parameters) on the project SRC list as well as physical parameters to support the evaluation of potential impacts to groundwater from migration of chemicals from soil. The analytical and preparatory methods (see Table 2) used in accordance with the SAP adhered to the most recent version of the *BRC Quality Assurance Project Plan* (QAPP; BRC and ERM 2009a – see Section B4, Table 4 of that document). As noted in Section 3.6, the analyte list for surface flux samples was comprised of the list specified in the NDEP-approved SOP-16 (as provided in the FSSOP (BRC, ERM and MWH 2009). Surface flux samples were analyzed for VOCs by full USEPA Method TO-15 full scan, plus selective ion mode (SIM) analyses for a subset of the analytes.

3.3 INTERMEDIATE SAMPLING AND CLEANUP

Several results from this initial sampling event were re-analyzed by the laboratory due to unexpectedly high initial concentrations in subsurface samples. These re-analyses were for radionuclides for the sample collected at location MC1-AX40 at 15 feet bgs, for arsenic for the sample collected at location MC1-AX40 at 5 feet bgs, and for thallium for the sample collected at location MC1-AW39 at 12 feet bgs. In all cases, the re-analysis results were lower than the original results. Because these re-analysis results are essentially split samples, consistent with

NDEP guidance (NDEP 2008a), the original sample result and re-analysis result(s) were averaged, and the average value was used in subsequent evaluations.[18]

In October 2008, seven samples (MC1-A01 through MC1-A07) were collected in the northern portion of the Site and analyzed for asbestos to provide further delineation of the extent of elevated asbestos levels detected in this area. Supplemental samples (MC1-J25 through MC1-J27) were also collected in November 2008 at three locations within pond PUA-1 to evaluate an elevated historical vanadium detection (October 1999). These three samples were analyzed for metals.

3.3.1 January 2009 Removal Action

All data were reviewed and a determination made, in consultation with NDEP, as to whether localized soil removals were warranted. In December 2008, BRC submitted a Removal Action Work Plan (RAWP; BRC 2008b) to NDEP. This RAWP was approved by NDEP on December 5, 2008. The overall goal of the RAWP was to present a cleanup strategy for the Site that effectively reduces, to the extent feasible, the human health risks associated with the identified soil in the impacted areas of the Site.

There were three different types of remediation areas proposed for the Site. These were areas associated with 1) elevated asbestos levels, 2) residual pond contamination, and 3) dioxins/furans concentrations above comparison levels in non-pond areas.

The remediation areas associated with elevated asbestos levels were developed based on a Thiessen or Voronoi map overlaid across the Site. Voronoi maps are constructed from a series of polygons formed around each sample location. Voronoi polygons are created so that every location within a polygon is closer to the sample location in that polygon than any other sample location. These polygons do not take into account the respective concentrations at each sample location. These polygons were used as the basis for the areal extent of remediation for each of the locations with elevated asbestos levels. Elevated asbestos levels were generally defined as locations with any detected long amphibole fibers and/or locations with greater than five long chrysotile fibers. There were two polygons (MC1-AV37 and MC1-AZ37) associated with elevated asbestos levels that were remediated at the Site. In addition, there was one sample location (MC1-AW37) with eight long chrysotile fibers within a pond. This pond also contains

[18] Re-analysis results are indicated with a 'ReA' qualifier in Appendix B. Average values are indicated with an 'A' qualifier in Appendix B.

elevated concentrations of other constituents, therefore, remediation of this location was based on that particular pond footprint, as discussed below.

Because the ponds at the Site are well defined, remediation for these areas was based on the current footprint of each pond with elevated chemical concentrations (generally near or above residential comparison levels). There were two ponds with elevated chemical concentrations detected in the June 2008 sampling event: PUA-3 and PUC-2. Therefore, the full extent of these ponds within the Site was proposed for additional remediation. However, these ponds have been bisected by Mohawk Drive, therefore, the remediation was the entire pond area to the east of Mohawk Drive (within the Site). Constituents triggering these ponds' remediation were chrysotile asbestos, thallium and vanadium in historical samples in pond PUC-2, and total chromium and vanadium in the recent samples in pond PUA-3. These pond remediation areas are shown on Figure 10.

As noted above, historical composite data from pond PUA-1 indicated the potential for elevated levels of vanadium. Therefore, additional confirmation sampling was conducted in November 2008. None of the first round of confirmation samples (June 2008), or the three additional confirmation samples indicated the presence of elevated levels of vanadium in pond PUA-1. Therefore, no additional remediation was conducted for this pond.

Based upon the CSM which does not specifically identify on-site dioxin sources, the extent of impact associated with non-pond sample locations with elevated dioxins/furans is likely to be small, the remediation areas were based on a 50-foot square area around these sample locations. Two non-pond remediation areas[19] depicted in Figure 10 were associated with elevated dioxins/furans levels; these remediation areas were associated with samples MC1-AV38 and MC1-AY36 (see Figure 8).

Following remediation, confirmation surface soil samples were collected at each of the original sample locations for the asbestos remediation areas. Samples were collected from the original sample locations and from each of the four corners of the remediation area at the two dioxin/furans remediation areas. Two surface soil samples were collected from each of the remediated ponds. In addition to these confirmation surface soil samples, in its December 5, 2008 approval letter NDEP requested that two sidewall samples be collected from the berms of

[19] Figure 8 does not include the specific sample locations that triggered remediation for a given area; the reader is referred to Figure 5 for specific sampling locations. The two dioxin/furan (non-pond) remediation areas in question are depicted on Figure 8 as two relatively small, square areas, one north of the ponds, and one south of the ponds.

each of the two pond remediation areas (samples MC1-J28, MC1-J29, MC1-J30, and MC1-J31 from ponds PUA-3 and PUC-2). All sample locations are shown on Figure 11. The analyte list was composed of those chemicals that triggered the remediation at each sample location. These included dioxins/furans, metals, and asbestos. As requested by NDEP, the four berm samples were analyzed for metals, radionuclides, organochlorine pesticides, polynuclear aromatic hydrocarbons (PAHs), and SVOCs.

3.3.2 April 2009 Removal Action

Following the review of data collected from the January 2009 removal action, three additional remediation areas were identified for the Site. BRC submitted the RAWP for this work to NDEP on March 10, 2009 (BRC 2009a). The RAWP was approved by NDEP on March 10, 2009. The rationale for each additional remediation area is presented below.

- Pond PUC-2; confirmation samples collected from the berms around this pond contained elevated levels of metals and radionuclides, while samples within the pond did not. Therefore, additional remediation and confirmation sampling was conducted for the berms themselves.

- Pond PUA-3; confirmation samples collected from the berms around this pond contained elevated levels of metals and radionuclides while samples within the pond contained elevated levels of metals only. Therefore, additional remediation and confirmation sampling was conducted for both the pond and berms.

- Original sample location MC1-AV38; surface remediation and confirmation sampling was conducted at this location for metals, radionuclides, and dioxins/furans. Confirmation samples contained elevated levels of metals and radionuclides, but not dioxins/furans. In addition, step-out samples did not contain elevated levels of any constituents. Therefore, additional remediation with the same footprint as the first remediation, but to a depth of three feet bgs was conducted with a single confirmation sample.

These three additional remediation areas are shown on Figure 10. As before, the analyte list was composed of those chemicals that triggered the remediation at each sample location. These included metals and radionuclides.

3.3.3 June 2009 Removal Action

Following the review of data collected from the April 2009 removal action, three additional remediation areas were identified for the Site. BRC submitted the RAWP for this work to NDEP on May 28, 2009 (BRC 2009b). The RAWP was approved by NDEP on May 28, 2009. The rationale for each additional remediation area is presented below.

- Pond PUC-2; confirmation samples collected from three of the four berm samples around this pond contained elevated levels of metals and radionuclides. Therefore, additional remediation and confirmation sampling was conducted for two berm areas around these three sample locations.

- Pond PUA-3; confirmation samples collected from the berms around this pond contained elevated levels of metals and radionuclides, while samples within the pond did not. Therefore, additional remediation and confirmation sampling was conducted for berm areas around the three sample locations with elevated levels.

These three additional remediation areas are shown on Figure 10. As before, the analyte list was composed of those chemicals that triggered the remediation at each sample location. These included metals and radionuclides.

Several results from this final sampling event were re-analyzed by the laboratory due to unexpectedly high initial concentrations in some samples. These re-analyses were for cobalt, which did not have elevated levels prior to this final sampling event, for samples MC3-J45 and MC3-J46 (both original and field duplicate samples); and for vanadium and total chromium for sample MC3-J43. In all cases, the re-analysis results were lower than the original results. As discussed above, an average was calculated from the original result and re-analysis results, and the average value was used in subsequent evaluations.

3.4 FINAL CONFIRMATION DATASET

The final confirmation dataset included the following sampling results:

- SAP sampling data, retaining only the results that were not superseded by subsequent sampling. [Note: Post-scrape analyses associated with follow-up rounds of remediation focused on the analytes triggering that additional remediation, and did not include the full suite analyses of the original analytical program. Therefore, analytical results from the original SAP dataset were retained for all analytes except those that were re-analyzed after additional scraping];

- Data generated after intermediate sampling and cleanup (retaining only the results that were not superseded by subsequent sampling); and
- Additional biased and random soil and surface flux samples collected for confirmation after completion of remediation activities.

The soil dataset was subjected to a series of statistical analyses in order to determine representative exposure concentrations for the sub-area, as described in Sections 4 and 5 of the *Statistical Methodology Report* (NewFields 2006). Consistent with the project *Statistical Methodology Report*, kriging or geostatistical analysis was not performed on the data because each measurement was assumed to be equally representative for that chemical at any point in each sub-area of the Eastside property. Hence, calculation of the 95 percent upper confidence limit (UCL) by exposure area directly from the data is considered reasonable.

As discussed in Section 4, all data have been validated. Results of all confirmation sampling and analysis are presented in Appendix B, and electronically on the report CD in Appendix B, as is the dataset used in the HHRA for the Mohawk sub-area. All confirmation sample locations for the Site are shown on Figure 11. Table 3 provides a matrix of which analytical suite was analyzed for in each of the samples collected at the Site. Geotechnical and Environmental Services (GES) conducted all field work at the Site. The GES field reports, including boring logs, for each investigation are provided electronically in Appendix C (included on the report CD in Appendix B).

3.5 FINAL CONFIRMATION DATA SUMMARY

Using the compound-specific information presented in Table 2 of the QAPP (BRC and ERM 2009a), the comparison levels for each chemical included in the investigation were compiled and compared. Specific soil comparison levels used for this effort were as follows:

- NDEP BCLs for residential soil (NDEP 2010a);
- NDEP BCLs for protection of groundwater (LBCL), assuming dilution attenuation factors (DAF) of 1 and 20 (NDEP 2010a); and

- The maximum background concentration (for metals and radionuclides only), derived from the background soil dataset for the BMI Common Areas presented in *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2009b; approved by NDEP on September 17, 2009) (see Section 6.1).

A DAF of one is used when little or no dilution or attenuation of soil leachate concentrations is expected, and a DAF of 20 may be used when significant attenuation of the leachate is expected due to site-specific conditions. For the Site, the LBCLs based on a DAF of 1 were used for discussion purposes. A summary of the data for the Site, including identification of number of instances that chemical concentrations exceed each of the comparison levels are listed in Table 4,[20] and summarized below. It is important to note that these comparisons are used to provide for an initial screening evaluation, to assist in the evaluation of data usability, and determination of extent of contamination. They are not used for decision making purposes, or as an indication of the risks associated with the Site.

Aluminum

Aluminum was detected in all of the Site soil samples in which it was analyzed (114 samples, 59 surface and 55 subsurface samples; Table B-5). All of the detections were lower than the 77,200 mg/kg BCL, but were higher than the 75 mg/kg $LBCL_{DAF1}$. However, none exceeded the 15,500 mg/kg maximum background concentration.

Antimony

Of the 114 Site soil samples in which antimony was analyzed (59 surface and 55 subsurface samples; Table B-5), antimony was detected in only one. This detection was lower than the 31 mg/kg BCL, but was higher than the 0.3 mg/kg $LBCL_{DAF1}$ and the 0.61 mg/kg maximum background concentration. This exceedance (1.1 mg/kg) was associated with the surface soil sample collected at MC1-J02.

20 Pre-scrape data for the target constituents are not included in Table 4, that is, these have been replaced by post-scrape data; however, pre-scrape data for the non-target constituents are included in Table 4. Because of this, the total number of analyses does not always coincide with the total number of analyses reported in the tables in Appendix B, which include all data, regardless of status.

Arsenic

Arsenic was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). All of the detections were higher than the 0.39 mg/kg BCL and the 1 mg/kg $LBCL_{DAF1}$. However, none had reported arsenic concentrations in excess of the maximum shallow soil background level (27.6 mg/kg).

Barium

Barium was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 15,300 mg/kg BCL, but all of the barium detections exceeded the 82 mg/kg $LBCL_{DAF1}$. However, only seven of the detections exceeded the maximum background concentration of 755 mg/kg. These seven samples with barium detections greater than background, were as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J12	11	6/25/2008	765
MC1-J18	0	7/7/2008	769
MC1-J08	19	6/23/2008	783
MC1-J02	0	6/26/2008	796
MC1-J11	4	6/24/2008	870
MC1-AV38	11	6/24/2008	957
MC3-J45	0	6/18/2009	1190

Total Chromium

Total chromium was detected in all of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 100,000 mg/kg BCL, but all of the total chromium detections were higher than the 2 mg/kg $LBCL_{DAF1}$. However, only 11 detections were higher than the 23.6 mg/kg maximum background detection. These 11 total chromium exceedances higher than background are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J02	0	6/26/2008	24.6
MC1-J27	0	11/26/2008	35.7
MC1-J21	0	1/6/2009	39.8
MC1-J26	0	11/26/2008	44.8
MC2-J39	0	4/23/2009	51.5
MC2-J33	0	4/23/2009	52.8

MC1-J23	0	1/6/2009	79.6
MC1-AW36	12	7/7/2008	83.7
MC1-AW38	0	6/24/2008	128
MC3-J41	0	6/18/2009	177
MC3-J43	0	6/18/2009	352

Hexavalent Chromium

Hexavalent chromium was detected in 39 of the 111 Site soil samples in which it was analyzed (56 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 230 mg/kg BCL. However, four detections were higher than the 2 mg/kg $LBCL_{DAF1}$ and the 0.56 mg/kg maximum background detection. These four hexavalent chromium exceedances are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC3-J43	0	6/18/2009	2.4
MC1-J30	0	1/6/2009	3.2
MC1-AW38	0	6/24/2008	4.1
MC1-J31	0	1/6/2009	4.4

Copper

Copper was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 2,910 mg/kg BCL. However, two detections were higher than the 35 mg/kg $LBCL_{DAF1}$. These two LBCL exceedances were also higher than the 36.2 mg/kg maximum background detection, and are associated with surface soil samples collected at locations MC1-AW38 and MC3-J43 (44.9 mg/kg and 81.5 mg/kg, respectively).

Iron

Iron was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 54,800 mg/kg BCL, but all of the detections were higher than the 7.5 mg/kg $LBCL_{DAF1}$. However, none of the detections were higher than the 21,700 mg/kg maximum background detection.

Magnesium

Magnesium was detected in all of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 100,000 mg/kg BCL, but all of the detections were higher than the 650 mg/kg $LBCL_{DAF1}$. However, all but one of the magnesium detections were lower than the 15,000 mg/kg maximum background detection. That exceedance (21,800 mg/kg) was associated with a sample collected from 11 feet bgs at MC1-AY39.

Manganese

Manganese was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). Of these detections, 12 were higher than the 1,080 mg/kg BCL. These BCL exceedances are associated with the following samples:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-AW38	12	6/24/2008	1130
MC1-AX36	13	6/30/2008	1140
MC3-J46	0	6/18/2009	1150
MC1-AW37	0	6/25/2008	1260
MC1-J23	0	1/6/2009	1290
MC1-AW36	0	7/7/2008	1350
MC3-J45	0	6/18/2009	1360
MC3-J44	0	6/18/2009	1400
MC3-J46	0	6/18/2009	1470
MC1-J24	0	1/6/2009	1980
MC1-J05	0	7/1/2008	2020
MC1-AV38	11	6/24/2008	2120

In addition, all of the detections were higher than the 3.3 mg/kg $LBCL_{DAF1}$. With the exception of one detection (2,120 mg/kg in a sample collected from 11 feet bgs at MC1-AV38), the manganese detections were lower than the maximum background concentration for manganese (2,070 mg/kg).

Molybdenum

Molybdenum was detected in 63 of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of the detections were higher than the 390 mg/kg BCL. However, one detection (14.4 mg/kg) was higher than the 3.6 mg/kg $LBCL_{DAF1}$ (sample collected from 12 feet bgs at MC1-AW36). This detection was also higher than the 2.3 mg/kg maximum background detection.

Nickel

Nickel was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). None of these detections exceeded the 1,540 mg/kg BCL, however, all but two were higher than the 7 mg/kg $LBCL_{DAF1}$. However, most of the detections were lower than the maximum background concentration for nickel (22 mg/kg). The 16 detections that are higher than the maximum background concentration are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC3-J42	0	6/18/2009	22.3
MC1-J18	0	7/7/2008	22.3
MC1-J26	0	11/26/2008	24
MC3-J46	0	6/18/2009	24.2
MC1-J23	0	1/6/2009	24.3
MC2-J39	0	4/23/2009	25.1
MC3-J43	0	6/18/2009	25.7
MC3-J45	0	6/18/2009	25.8
MC3-J46	0	6/18/2009	27.4
MC1-J26	0	11/26/2008	28.4
MC1-J27	0	11/26/2008	29.7
MC1-AW38	0	6/24/2008	32
MC3-J41	0	6/18/2009	32.7
MC1-J24	0	1/6/2009	36.4
MC2-J32	0	4/23/2009	42.6
MC2-J33	0	4/23/2009	45.3

Thallium

Thallium was detected in only 7 of the 114 Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). One of the detections were higher than the 5.5 mg/kg BCL. This exceedance (6.97 mg/kg) was associated with the sample collected from 12 feet bgs at MC1-AW39. In addition, six of the thallium detections were higher than the 0.4 mg/kg $LBCL_{DAF1}$; only three of those detections were higher than the 2 mg/kg maximum background detection. These three thallium exceedances higher than background are as follows:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J24	0	1/6/2009	2.2
MC1-J23	0	1/6/2009	3.2
MC1-AW39	12	6/24/2008	6.97

Vanadium

Vanadium was detected in all 114 of the Site soil samples in which it was analyzed (59 surface and 55 subsurface samples; Table B-5). One of these detections was higher than the 390 mg/kg BCL and the 300 mg/kg LBCL. That detection (458 mg/kg) was associated with a surface soil sample at MC3-J43, and was also higher than the 55.3 mg/kg maximum background detection.

Other Inorganics

As seen in Table 4 and Tables B-4 in Appendix B, several inorganic constituents in addition to those listed above were routinely detected in soil samples. None of these additional inorganic constituents were detected at concentrations in excess of either the BCL or the $LBCL_{DAF1}$. The reporting limits for these additional inorganic constituents were generally sufficiently low such that concentrations in excess of the BCL or $LBCL_{DAF1}$, if present, would have been reported.

Organochlorine Pesticides

Organochlorine pesticides were analyzed for in 107 Site soil samples (52 surface and 55 subsurface samples; Table B-6). The following analytes were detected in at least one sample: 2,4-DDE, 4,4-DDE, 4,4-DDT, beta-BHC, and endrin aldehyde. 2,4-DDE and 4,4-DDE were the most commonly detected (in 21 percent of the samples in which they were analyzed). Most of the detections were lower than the BCL and/or $LBCL_{DAF1}$. However, all 7 of the beta-BHC detections were higher than the 0.0001 mg/kg $LBCL_{DAF1}$. [Note: All of these detections were lower than the 0.32 mg/kg BCL]. Those seven LBCL exceedances were associated with the following samples:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J03	0	6/26/2008	0.0018
MC1-J06	8	6/25/2008	0.0018
MC1-J16	0	6/26/2008	0.0019
MC1-J11	0	6/24/2008	0.002
MC1-J28	0	1/6/2009	0.0022
MC1-AV37	11	6/24/2008	0.0042
MC1-AV38	0	6/24/2008	0.0063

The reporting limits for organochlorine pesticides were sufficiently low such that concentrations in excess of the comparison levels, if present, would be reported.

Volatile Organic Compounds

VOCs were analyzed for in 102 Site soil samples (47 surface and 55 subsurface samples; Table B-11). As seen in Table 4 and Table B-11, 13 VOCs were detected in at least one sample:

- 1,1,1,2-Tetrachloroethane
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- Acetone
- Acetonitrile
- Benzene
- Dichloromethane
- Ethanol
- Ethylbenzene
- 1-Nonanal
- Methyl ethyl ketone
- m,p-Xylene
- Toluene

1,2,4-trimethylbenzene was detected the most frequently, in 18 percent of the samples. None of the detections were above the BCL. With the exception of dichloromethane, the VOC detections were also lower than the $LBCL_{DAF1}$. Dichloromethane was detected in the following 15 soil samples at concentrations in excess of the 0.001 mg/kg $LBCL_{DAF1}$:

Sample ID	Depth (ft bgs)	Date Collected	Concentration (mg/kg)
MC1-J03	0	6/26/2008	0.0046
MC1-AV38	11	6/24/2008	0.0059
MC1-AW39	12	6/24/2008	0.0067
MC1-J11	0	6/24/2008	0.0075
MC1-J11	4	6/24/2008	0.0082
MC1-J11	14	6/24/2008	0.0083
MC1-AV37	11	6/24/2008	0.009
MC1-AV37	0	6/24/2008	0.0091
MC1-J09	0	6/24/2008	0.0093
MC1-AW38	0	6/24/2008	0.011
MC1-J09	10	6/24/2008	0.011
MC1-AW38	12	6/24/2008	0.011
MC1-AW39	0	6/24/2008	0.012
MC1-AV38	0	6/24/2008	0.016
MC1-AV38	0	6/24/2008	0.019

The standard reporting limits were lower than the BCL and $LBCL_{DAF1,}$ and concentrations in excess of these screening levels, if present, would have been reported.

Semi-Volatile Organic Compounds

SVOCs were analyzed for in 107 Site soil samples (52 surface and 55 subsurface samples; Table B-10). As seen in Table 4 and Table B-10, SVOCs were not routinely detected. Only two SVOCs were detected: benzyl butyl phthalate (1 detection) and bis(2-ethylhexyl)phthalate (3 detections). All four detections were lower than the BCL and the $LBCL_{DAF1}$. For SVOC non-detects, the standard reporting limits were lower than the BCL, except for dichloromethyl ether, which routinely had reporting limits higher than the BCL. With the exception of this compound, concentrations in excess of the BCL, if present, would have been reported for SVOCs. For several other SVOCs the reporting limits are higher than the $LBCL_{DAF1}$, and it is unknown whether these constituents are present in those samples at concentrations in excess of the $LBCL_{DAF1.}$ The analytes with reporting limits routinely higher than the $LBCL_{DAF1}$ are as follows:

- 2,2'-/4,4'-Dichlorobenzil
- 2,4,6-Trichlorophenol
- 2,4-Dinitrophenol
- 2,4-Dinitrotoluene
- 2,6-Dinitrotoluene
- 3,3'-Dichlorobenzidine
- bis(2-chloroethyl)ether
- Carbazole
- Hexachloroethane
- Isophorone
- Nitrobenzene
- n-Nitrosodi-n-propylamine
- p-Chloroaniline
- Pentachlorophenol

Dioxins and Furans

For dioxins/furans, as discussed in Section 1.1, the USEPA TEQ procedure, developed to describe the cumulative toxicity of these compounds, is used. Dioxins and furans were analyzed for in 71 Site soil samples (54 surface and 17 subsurface samples; Table B-3). All of the individual dioxins and furans congeners analyzed were reported as detections in at least one sample. None of the samples analyzed had calculated TCDD TEQ concentrations in excess of the NDEP BCL of 50 ppt. $LBCL_{DAF1}$ values have not been established for dioxin/furans; thus the potential for impacts to groundwater quality due to their presence could not be assessed by comparisons to these levels.

Polychlorinated Biphenyls

PCBs were analyzed for in 74 Site soil samples (Aroclors and/or individual congeners) (54 surface, 20 subsurface; Table B-8).[21] Aroclors were not detected in any of these samples; the majority of the congeners were detected in at least one sample. The reporting limits for Aroclors analyzed were lower than the BCL; thus concentrations in excess of the BCL, if present, would have been reported. $LBCL_{DAF1}$ values have not been established for Aroclors or individual congeners. BCL values have not been established for individual congeners. PCB congeners are included in the calculation of the TCDD TEQ, and are evaluated in this manner, not on an individual congener basis.

Polynuclear Aromatic Hydrocarbons

PAHs were analyzed for in 107 Site soil samples (52 surface, 55 subsurface; Table B-7); none were detected. The standard PAH reporting limits were lower than the BCL and the $LBCL_{DAF1}$; thus concentrations in excess of these comparison levels, if present, would have been reported.

Aldehydes

Aldehydes were analyzed for in 104 Site soil samples (49 surface and 55 subsurface samples; Table B-2). Acetaldehyde and formaldehyde were the only detections (in 38 percent and 65 percent of the samples, respectively). None of the detections exceeded the BCL. The reporting limits were lower than the BCL; thus concentrations in excess of the BCL, if present, would have been reported. $LBCL_{DAF1}$ values have not been established for these compounds.

Radionuclides

Radionuclides were detected in all 109 of the Site soil samples analyzed (54 surface and 55 subsurface soil samples; Table B-9). Exceedances of comparison levels for radionuclides are only shown in Table 4 for the eight radionuclides currently included in the project analyte list (radium-226, radium-228, thorium-228, thorium-230, thorium-232, uranium-233/234, uranium-235/236, and uranium-238). Of those detections greater than comparison levels, most are lower than the maximum background activity, as shown in Table 4. Detections higher than comparison levels and background are summarized below for each radionuclide:

[21] Most of the 74 samples (60 samples) were analyzed for both Aroclors and PCBs. However, a subset was analyzed for Aroclors only (3 samples), and a subset was analyzed for PCBs only (11 samples). For this reason, the individual counts on Table 4 range from 63 to 71 samples (Table 4 does not include samples within remediated areas).

- All of the reported Radium-226 detections were higher than the BCL and $LBCL_{DAF1}$ (0.0071 picoCuries per gram [pCi/g] and 0.016 pCi/g, respectively). However, only two of those detections were higher than the 2.75 pCi/g maximum background activity: a surface soil sample collected from MC1-AW36 (3.11 pCi/g) and a sample collected from 13 feet bgs at MC1-AX39 (2.81 pCi/g).

- All of the reported Radium-228 detections were higher than the BCL and $LBCL_{DAF1}$ (0.013 pCi/g and 0.016 pCi/g, respectively). However, only two of the detections were higher than the 2.86 pCi/g maximum background activity: a sample collected from 8 feet bgs at MC1-J07 (3.12 pCi/g) and a surface soil sample collected at MC3-J46 (3.02 pCi/g).

- 48 of the Uranium-235/236 detections were higher than the 0.11 pCi/g BCL. However, only three of the detections were higher than the 0.241 pCi/g maximum background activity: a surface soil sample collected at MC1-AY38 (0.281 pCi/g); a sample collected at 3 feet bgs at MC1-AZ36 (0.247 pCi/g, qualified as a non-detect); and a sample collected from 14 feet bgs at MC1-J19 (1 pCi/g, qualified as a non-detect). An $LBCL_{DAF1}$ has not been established for this constituent.

As presented in NDEP guidance (NDEP 2009a), as part of the process used to evaluate radionuclide data for the BMI Common Areas, BRC assessed whether radionuclides are in secular equilibrium. The data indicate that secular equilibrium has been broadly attained at the Site. Specifically, the mean radioactivities for the Thorium-232 decay chain (*i.e.*, thorium-232, radium-228, and thorium-228) are comparable (1.4 pCi/g, 1.6 pCi/g, and 1.7 pCi/g, respectively). Similarly, the mean values for the uranium-238 decay chain (uranium-238, uranium-233/234, thorium-230, and radium-226) are also comparable, ranging from 1 pCi/g to 1.2 pCi/g. All of the mean values are lower than their respective maximum background activity levels. A quantitative evaluation of secular equilibrium is presented in Section 6.1.

Summary of Soil Exceedances

As summarized above and in the associated data tables (Table 4 and Appendix B), limited BCL and $LBCL_{DAF1}$ exceedances are currently observed in Site soils. The following constituents were reported at concentrations higher than the BCL and the maximum background concentration (where applicable):

- Manganese (1 sample)
- Vanadium (1 sample)

- Thallium (1 sample)
- Radionuclides (7 samples)

The following constituents were reported at concentrations higher than the $LBCL_{DAF1}$ and the maximum background concentration (where applicable):

- Antimony (1 sample)
- Barium (7 samples)
- Total chromium (11 samples)
- Hexavalent chromium (4 samples)
- Copper (2 samples)
- Magnesium (1 sample)
- Manganese (1 sample)
- Molybdenum (1 sample)
- Nickel (16 samples)
- Thallium (3 samples)
- Vanadium (1 sample)
- beta-BHC (7 samples)
- Dichloromethane (15 samples)
- Radionuclides (7 samples)

The limited number of BCL and $LBCL_{DAF1}$ exceedances indicates that there is a relatively low likelihood of adverse impacts to human health and the environment due to residual chemical concentrations in Site soils. Consistent with the methodology in the NDEP-approved *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010), an HHRA was conducted to further evaluate this possibility, as discussed in subsequent sections of this report. In addition, using the SESOIL and VLEACH unsaturated zone leaching models, BRC evaluated the potential impacts to groundwater quality due to residual chemical concentrations, as summarized in Section 9.

One observation from the data review was the presence of two areas where cobalt and vanadium results were generally greater than other results for these two metals throughout the remainder of the Site. The cobalt area was in pond PUC-2, while the vanadium area was in pond PUA-3. Therefore, these two areas were considered separately for subsequent evaluations in the HHRA, for these two metals. That is, three 'exposure areas' are considered:

1. Pond PUC-2, using cobalt data for just this pond area, and Site-wide data for all other analytes;
2. Pond PUA-3, using vanadium data for just this pond area, and Site-wide data for all other analytes; and

3. "Site-wide" exposures using all data except pond PUC-2 data for cobalt, and all data except pond PUA-3 data for vanadium, and Site-wide data for all other analytes.

3.6 SURFACE FLUX SAMPLING

Concurrent with the confirmation soil sampling, BRC implemented surface flux sampling across the Site. This sampling conformed to the most recent NDEP-approved version of SOP-16 (BRC, ERM and MWH 2009). The sampling procedure for the effort included the USEPA surface emission isolation flux chamber (flux chamber) and static chamber sampling to support an air pathway analysis for the Site.

Although radon samples were collected, they are not included in this HHRA. BRC recently submitted a technical memorandum to NDEP, in which the results of recent radon testing performed in groundwater and indoor air samples were presented. Based on the findings of this memorandum, NDEP concluded that HHRAs for Eastside property sub-areas do not need to evaluate the pathway of radon migration from groundwater to indoor air for sub-areas with a separation distance of at least 15 feet between any current or future building structure base and the high water table (letter dated November 9, 2010 from Greg Lovato, NDEP to Mark Paris, BRC). Based on this conclusion and given the depth to groundwater at the Site is at least 45 feet bgs, the intrusion of radon into indoor air is not evaluated in the HHRA for this Site. Furthermore, as discussed in Section 6.1, other radionuclides are consistent with background levels, which indicates that radon should also be consistent with background, naturally-occurring levels in soil.

The flux chamber sample collection rationale was based on the project goal of obtaining a representative dataset of air emissions per sub-area. Flux chamber samples were collected from the initial 20 biased sample locations and one random location, including three field duplicates, for a total of 24 samples (Figure 11). Because the biased samples were collected primarily from the pond areas, which are primarily in the southern portion of the Site, and because the shallowest groundwater at the Site is in the northern portion of the Site, an additional flux chamber sample was collected in the north part of the Site, at random sample location MC1-BA36 (see Figure 11). A higher density of sample collection for VOCs was not considered warranted given that sample collection was post-remediation and groundwater beneath the Site is greater than 45 feet bgs (see Figure 2).

Two of the samples (*i.e.*, those associated with MC1-J03 and -J06) were inadvertently destroyed by the laboratory before they could be analyzed, resulting in VOC flux data for 22 samples.[22] This density of sample collection is considered adequate for sub-area characterization given: the biased 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.

The analyte list for soil vapor flux samples is comprised of the list provided in the most recent NDEP-approved version of SOP-16 (BRC, ERM and MWH 2008). This analyte list is provided in Table 5, and consists of the full EPA Method TO-15 full scan, plus SIM analyses for a subset of the analytes. The analytical results are summarized in Table B-12 (Appendix B), and the principal investigator report of findings, which includes descriptions of sampling procedures, is provided in Appendix D (included on the report CD in Appendix B).[23] A data summary for the flux chamber sample results is provided in Table 6.

As seen in Tables 6 and B-12, more than 40 organic constituents were detected in at least one flux sample. The most commonly detected constituents were acetone, carbon tetrachloride, chloroform, and n-heptane, which were detected in more than 95 percent of the samples. Nearly all of the detections were qualified with "J" flags, indicating the reported concentrations were estimated (*i.e.*, lower than the reporting limit). All of the detections were lower than 1 $\mu g/m^2$, min^{-1} with the exception of a single acetone detection of 1.6 $\mu g/m^2$, min^{-1} (location MC1-J19).

As discussed in Section 4, all data have been validated. The HHRA surface flux dataset for the Mohawk sub-area is included as Appendix D to the HHRA (found on the CD provided in Appendix B). Surface flux sample locations, including the two not analyzed, are shown on Figure 11.

[22] BRC determined that these two samples were not essential for the purposes of the risk assessment because of (1) the location of MC1-J03 on a berm on the edge of the former pond area; and (2) the proximity of MC1-J06 to location MC1-J13 which was also being sampled. Therefore, these two locations were not re-sampled.
[23] Note that this report was prepared prior to data validation, therefore, data qualifiers and detection frequencies may differ than those in the remainder of this report.

4.0 DATA EVALUATION

This Section describes the procedures used to evaluate the acceptability of data for use in the risk assessment. Overall quality of sample results is a function of proper sample management. Management of samples began at the time of collection and continued throughout the analysis process. SOPs were followed to ensure that samples were collected and managed properly and consistently and to optimize the likelihood that the resultant data are valid and representative.

The primary objective of the data review and usability evaluation was to identify appropriate data for use in the HHRA. The analytical data were reviewed for applicability and usability following procedures in the *Guidance for Data Usability in Risk Assessment (Part A)* (USEPA 1992a) and USEPA (1989) and NDEP's *Data Usability Guidance for the BMI Complex and Common Areas* (NDEP 2008b). A quality assurance/quality control (QA/QC) review of the analytical results was conducted during the sampling events. According to the USEPA Data Usability Guidance, there are six principal evaluation criteria by which data are judged for usability in risk assessment. The six criteria are:

- reports to risk assessor (availability of information associated with Site data)
- documentation;
- data sources;
- analytical methods and detection limits;
- data review; and
- data quality indicators (DQIs), including precision, accuracy, representativeness, comparability, and completeness.

A summary of these six criteria for determining data usability is provided below. In addition to the six principal evaluation criteria, NDEP's Data Usability Guidance includes a step for data usability analysis, which is discussed after these six USEPA evaluation criteria. Data usability evaluation tables are provided electronically in Appendix E (included on the report CD in Appendix B).

4.1 CRITERION I – REPORTS TO RISK ASSESSOR (AVAILABILITY OF INFORMATION ASSOCIATED WITH SITE DATA)

The usability analysis of the site characterization data requires the availability of sufficient data for review. The required information is available from documentation associated with the Site data and data collection efforts. Data have been validated per the NDEP-approved *Data Validation Summary Report, Mohawk Sub-Area Soil Investigation, May-July 2008 (Dataset 52)* (BRC and ERM 2008), the NDEP-approved *Data Validation Summary Report, Mohawk Sub-Area 1st Round Confirmation Soil Investigation – June 2008, October 2008, November 2008, and January 2009 (Dataset 52a)* (BRC and ERM 2009c), and the NDEP-approved *Data Validation Summary Report, Mohawk Sub-Area 2nd and 3rd Round Confirmation Soil Investigations – April and June 2009 (Dataset 52b)* (BRC and ERM 2009d). These reports are provided electronically in Appendix F (included on the report CD in Appendix B). The following lists the information sources and the availability of such information for the data usability process:

- A Site description provided in this report and the NDEP-approved SAPs identifies the location and features of the Site, the characteristics of the vicinity, and contaminant transport mechanisms.
- A site map with sample locations is provided on Figure 11.
- Sampling design and procedures were provided in the NDEP-approved SAPs.
- Analytical methods and sample quantitation limits (SQLs) are provided in the dataset file included on the report CD in Appendix B.
- A complete dataset is provided in the dataset file included on the report CD in Appendix B.
- A narrative of qualified data is provided with each analytical data package, the laboratory provided a narrative of QA/QC procedures and results. These narratives are included as part of the DVSRs (BRC and ERM 2008, 2009c,d).
- QC results are provided by the laboratory, including blanks, replicates, and spikes. The laboratory QC results are included as part of the DVSRs (BRC and ERM 2008, 2009c,d).
- Data flags used by the laboratory were defined adequately.
- Electronic files containing the raw data made available by the laboratory are included as part of the DVSRs (BRC and ERM 2008, 2009c,d).

4.2 CRITERION II – DOCUMENTATION REVIEW

The objective of the documentation review is to confirm that the analytical results provided are associated with a specific sample location and collection procedure, using available documentation. For the purposes of this data usability analysis, the chain-of-custody forms prepared in the field were reviewed and compared to the analytical data results provided by the laboratory to ensure completeness of the dataset as discussed in the DVSRs (BRC and ERM 2008, 2009c,d). Based on the documentation review, all samples analyzed by the laboratory were correlated to the correct geographic location at the Site and are shown on Figure 11. The samples were collected in accordance with the SAP and RAWPs (BRC 2008a,b, 2009a,b), the SOPs developed for the BMI Common Areas as provided in the FSSOP (BRC, ERM and MWH 2009). Field procedures included documentation of sample times, dates and locations, other sample specific information such as sample depth were also recorded. Information from field forms generated during sample collection activities was imported into the project database.

Measurement of asbestos was conducted consistent with NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009c). The analytical data were reported in a format that provides adequate information for evaluation, including appropriate quality control measures and acceptance criteria. Each laboratory report describes the analytical method used, provides results on a sample by sample basis along with sample specific SQLs, and provides the results of appropriate quality control samples such as laboratory control spike samples, sample surrogates and internal standards, and matrix spike samples. All laboratory reports, except for asbestos, provided the documentation required by USEPA's Contract Laboratory Program (USEPA 2003a, 2004b,c) which includes chain of custody records, calibration data, QC results for blanks, duplicates, and spike samples from the field and laboratory, and all supporting raw data generated during sample analysis. Reported sample analysis results were imported into the project database. The recommended method for providing asbestos data which are useful for risk assessment purposes was performed by EMSL Analytical Inc in Westmont, New Jersey. This laboratory is not currently certified in the State of Nevada, but has California and national accreditation for asbestos analysis.

4.3 CRITERION III – DATA SOURCES

The review of data sources is performed to determine whether the analytical techniques used in the site characterization process are appropriate for risk assessment purposes. The data collection activities were developed to characterize a broad spectrum of chemicals potentially present on the Site, including asbestos, aldehydes, general chemistry/ions, VOCs, SVOCs, metals, dioxins/furans, PAHs, organochlorine pesticides, radionuclides, and PCBs. As discussed above in the Section 2.3, historical data collected from the Site are not evaluated further in this data review, or the HHRA. Figure 11 demonstrates that samples were collected over the entire Site.

The State of Nevada is in the process of certifying the laboratories used to generate the analytical data. As such, standards of practice in these laboratories follow the quality program developed by the Nevada Revised Statutes (NRS) and are within the guidelines of the analytical methodologies established by the USEPA. Based on the review of the available information, the data sources for chemical and physical parameter measurements are adequate for use in a risk assessment.

4.4 CRITERION IV – ANALYTICAL METHODS AND DETECTION LIMITS

In addition to the appropriateness of the analytical techniques evaluated as part of Criterion III, it is necessary to evaluate whether the detection limits are low enough to allow adequate characterization of risks. At a minimum, this data usability criterion can be met through the determination that routine USEPA reference analytical methods were used in analyzing samples collected from the Site. The USEPA methods that were used in conducting the laboratory analysis of soil samples are identified in the dataset file included on the report CD in Appendix B. Each of the identified USEPA methods is considered the most appropriate method for the respective constituent class and each was approved by NDEP as part of the SAP and RAWPs (BRC 2008a,b, 2009a,b). As recommended by NDEP's guidance on *Detection Limits and Data Reporting* (NDEP 2008c) the laboratory reported SQL was used in evaluating detection limits.

Laboratory SQLs were based on those outlined in the reference method, the SAPs (BRC 2008a,b), and the project QAPP (BRC and ERM 2009a). In accordance with respective laboratory SOPs, the analytical processes included performing instrument calibration, laboratory method blanks, and other verification standards used to ensure quality control during the analyses of collected samples.

The range of SQLs achieved in field samples was compared to NDEP BCLs (NDEP 2010a). Of the standard analytes, only two chemicals had SQLs that exceeded their respective BCLs, n-nitrosodi-n-propylamine in five of 107 samples, and dichloromethyl ether. Dichloromethyl ether was included in the SVOC analyses for only five samples. Several chemicals had SQLs above the LBCLs; however, given the discussion provided in Section 9, migration of chemicals at the

Site to groundwater is considered unlikely. Therefore, the SQLs are considered adequate for risk assessment purposes.

As discussed in the *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2009b), there are differences in SQLs among datasets which may affect data comparability for datasets comprised primarily of non-detected values. For these datasets, left-censored data can result in difficulties in differentiating whether datasets are actually different or merely an artifact of detection limits.

4.5 CRITERION V – DATA REVIEW

The data review portion of the data usability process focuses primarily on the quality of the analytical data received from the laboratory. Soil and surface flux data were subject to data validation. DVSRs were prepared as separate deliverables (BRC and ERM 2008, 2009c,d). The analytical data were validated according to the internal procedures using the principles of USEPA National Functional Guidelines (USEPA 1999, 2004d, 2005a, 2008) and were designed to ensure completeness and adequacy of the dataset. Additionally, DVSRs 52a and 52b were issued utilizing NDEP's two *Supplemental Guidance on Data Validation* documents (NDEP 2009b,c). Any analytical errors and/or limitations in the data have been addressed and an explanation for data qualification provided in the respective data tables. The results of ERM's data review for these issues are presented in the DVSRs and are summarized below.

Original Appendix E Data Usability Evaluation tables (as per Version 2.0 of the report) included all data points identified in the DVSRs that could potentially be of interest for data usability (e.g., all instances of blank contamination, out-of-laboratory limits, etc). These original tables (of data points potentially requiring analysis by the risk assessor as to usability) were reduced in a series of steps as follows:

- J+ flagged data and blank contamination data points were deemed usable and were removed from the table (i.e., required no further assessment as to usability) as these issues would lead to potential overestimation of risk;
- Data points noting "sample location was removed" were removed as these data points do not represent current conditions (data were not used in the HHRA);
- Data points with U or UJ flags, listed in the original table due to calibration violation, low recovery, etc, were deemed usable and removed from the table (i.e., required no further

evaluation) if the values were less than the BCL (in almost all cases, values were considerably less than the BCL);

- Detected data listed in the original table due to calibration violation, low recovery, etc, were deemed usable and removed from the table (i.e., required no further evaluation) if the values were less than the BCL(in almost all cases, values were considerably less than the BCL) ;

- Remaining data points were retained in the current Appendix E tables and include a point-by-point description of the usability decision.

4.6 CRITERION VI – DATA QUALITY INDICATORS

DQIs are used to verify that sampling and analytical systems used in support of project activities are in control and the quality of the data generated for this project is appropriate for making decisions affecting future activities. The DQIs address the field and analytical data quality aspects as they affect uncertainties in the data collected for site characterization and risk assessment. The DQIs include precision, accuracy, representativeness, comparability, and completeness (PARCC). The project QAPP provides the definitions and specific criteria for assessing DQIs using field and laboratory QC samples and is the basis for determining the overall quality of the dataset. Data validation activities included the evaluation of PARCC parameters, and all data not meeting the established PARCC criteria were qualified during the validation process using the guidelines presented in the National Functional Guidelines for Laboratory Data Review, Organics and Inorganics and Dioxin/Furans (USEPA 1999, 2004d, 2005a, 2008).

Precision is a measure of the degree of agreement between replicate measurements of the same source or sample. Precision is expressed by relative percent difference (RPD) between replicate measurements. Replicate measurements can be made on the same sample or on two samples from the same source. Precision is generally assessed using a subset of the measurements made. The precision of the data was evaluated using several laboratory QA/QC procedures. Based on ERM's review of the results of these procedures, the general level of precision for the Mohawk Sub-Area data and the background data (BRC and ERM 2009b) does not appear to limit the usability of a particular analyte, sample, method, or dataset as a whole.

Accuracy measures the level of bias that an analytical method or measurement exhibits. To measure accuracy, a standard or reference material containing a known concentration is analyzed or measured and the result is compared to the known value. Several QC parameters are used to evaluate the accuracy of reported analytical results:

- Holding times and sample temperatures;
- Laboratory control sample (LCS) percent recovery;
- Matrix spike/matrix spike duplicate (MS/MSD) percent recovery;
- Spike sample recovery (inorganics);
- Surrogate spike recovery (organics);
- Tracer recovery (radionuclides); and
- Blank sample results.

Detailed discussions of and tables with specific exceedances, with respect to precision and accuracy, are provided in the NDEP-approved DVSRs (BRC and ERM 2008, 2009c,d) and data qualified as a result of this evaluation are presented with qualifiers in the data usability tables in Appendix E (included on the report CD in Appendix B). All samples were received at the laboratory in an acceptable condition within the temperature limits and with preservative where applicable with the exception of three samples (MC1-J243, MC1-J24, and Rinsate1) analyzed under DVSR 52a. These samples, for formaldehyde and acetaldehyde analysis, were received at the laboratory at 19°C exceeding the required temperatures range of 4°± 2° Celsius (C). These data were qualified as potentially biased low. After comparison with blank levels, all results were censored and qualified as non-detects with a final qualifier of UJ.

A review of metal results qualified due to blank contamination uncovered that perhaps a larger than normal number of findings in blanks. Laboratory Data Consultants (LDC) observed a higher number of incidents of blank contamination during the course of the Mohawk event (July 2008 and re-sampling events April 2009) and qualified the data according to SOP-40 (BRC, ERM and MWH 2009). Based on the data review, LDC noted that most of the blank contamination occurred mainly with metals analyses performed by an older Perkin Elmer instrument at TestAmerica's St. Louis, MO laboratory. TestAmerica purchased a newer Agilent instrument and began using this instrument in July/August 2009, for 50 percent of the projects, thus reducing the blank contamination incidents. LDC confirmed there were fewer blank contamination findings after TestAmerica switched over to the new instrument. BRC requested the QA department at TestAmerica to review blank contaminations for this instrument, but did not find any significant change in method blank findings above the PQL. TestAmerica does not have a database query to cover calibration blank findings, but a review of non-conformance memos did not give a definitive pattern. The QA department indicated that the new instrument is more sensitive and cleaner (because it is new). Since the MDLs are not instrument-specific and are set as the highest value among all of the instruments, this may be the reason fewer blank hits have been shown with the new instrument. It is not known whether this has led to an over or underestimation of risk; however, this issue primarily affects metals with detection limits well below their respective NDEP BCL for residential soil (for example, antimony [highest non-detect value is 2.8 mg/kg versus BCL of 31 mg/kg], boron [highest non-detect value is 52.1 mg/kg versus BCL of 15,600 mg/kg], cadmium [highest non-detect value is 0.26 mg/kg versus BCL of 39 mg/kg], molybdenum [highest non-detect value is 2.9 mg/kg versus BCL of 390 mg/kg], and tungsten [highest non-detect value is 2.7 mg/kg versus BCL of 590 mg/kg]). Therefore, this issue likely has negligible effect on the calculated risk estimates.

As mentioned in Section 4.5.2, 13 niobium results and five perchlorate results were rejected due to very low MS/MSD recoveries and one vinyl acetate result was rejected due to zero MS/MSD recoveries. Additionally, the isotopic uranium (uranium-233/234, uranium-235/236, and uranium-238) results for sample MC1-J09-0 were rejected by the laboratory due to an exceedance in the standard deviation of the results. The laboratory later re-analyzed the sample within holding time. Data review included evaluation of calibration violations, tracer recoveries, blank contamination, spike and surrogate recoveries as well as replicate precision. These results were censored at the sample value so that comparison with background values was appropriate.

Representativeness is the degree to which data accurately and precisely represent a characteristic of the population at a sampling point or an environmental condition (USEPA 2002a). There is no standard method or formula for evaluating representativeness, which is a qualitative term. Representativeness is achieved through selection of sampling locations that are appropriate relative to the objective of the specific sampling task, and by collection of an adequate number of samples from the relevant types of locations. The sampling locations at the Site were based on both systematic sampling with random point placement within each grid cell, as well as focused samples collected from specific areas to further investigate potential areas. The samples were analyzed for a broad spectrum of chemical classes across the Site. Samples were delivered to the laboratory in coolers with ice to minimize the loss of analytes. At times the samples were analyzed beyond the holding time. Sample specific results are discussed in the DVSRs. A discussion of representativeness for the background dataset is provided in the *Supplemental Shallow Soil Summary Report, BMI Common Areas (Eastside)* (BRC and ERM 2009b).

Completeness is commonly expressed as a percentage of measurements that are valid and usable relative to the total number of measurements made. Analytical completeness is a measure of the number of overall accepted analytical results, including estimated values, compared to the total number of analytical results requested on samples submitted for analysis after review of the analytical data. Some of the data were eliminated due to data usability concerns. The percent completeness for the Site is 99.93 percent and includes the flux chamber data. The percent completeness for the soil only dataset is 99.92 percent. The percent completeness in the background dataset is 100 percent (BRC and ERM 2009b).

Comparability is a qualitative characteristic expressing the confidence with which one dataset can be compared with another. The desire for comparability is the basis for specifying the analytical methods; these methods are generally consistent with those used in previous investigations of the Site. The comparability goal is achieved through using standard techniques to collect and analyze representative samples and reporting analytical results in appropriate units. The ranges of detected sample results from the current investigation are generally comparable to recent results at the Eastside (for example, the Parcel 4B sub-area), as well as the site background datasets (see Section 5.1). There are differences in SQLs among datasets which may affect data comparability for datasets comprised primarily of non-detected values. An example of the differences in SQLs at the site and in background for several analytes with low detection frequency is shown in the following table.

Analyte	**Background Min SQL**	**Background Max SQL**	**Site Min SQL**	**Site Max SQL**[24]
Antimony	0.126	0.126	0.063	0.315
Boron	6.6	6.6	2.99	16.5
Lithium	3.657	14.628	3.285	13.14
Mercury	0.00668	0.00668	0.005	0.0115
Thallium	0.3	0.3	0.105	0.75

All results in units of mg/kg.

Boxplots for the background and site datasets are included in Appendix G. For these datasets, left-censored data can result in difficulties in differentiating whether datasets are actually different or merely an artifact of detection limits. Note that for constituents with SQLs that meet project limit requirements, comparisons between Site and background may be less important as

[24] The SQLs reported here may differ from the detection limits reported elsewhere (e.g. background comparisons). Detection limits may be raised due to blank contamination.

these left-censored data are likely to indicate conditions that pose an "acceptable" risk and further evaluation is not necessary.

4.7 DATA ANALYSIS

The dataset used for the HHRA is summarized in tabular format in Table 4 and in graphical format in the box plots and probability plots provided in Appendix G. As discussed in Section 4.5, the data validation process resulted in numerous sample results being qualified as estimated, and a few results being rejected. Sample results qualified as estimated are likely to be quantitatively biased to some degree; estimated analytical results are used in the HHRA. Data qualified as anomalous, as defined in the DVSRs, refers to data that were qualified ("U") due to blank contamination, and are used in the HHRA. These data usability decisions follow the guidelines provided in the *Guidance for Data Usability in Risk Assessment (Part A)* (USEPA 1992a).

For the HHRA, all soil data associated with post-remediation conditions that were not rejected during data validation, replaced by re-analysis results, or removed during a soil removal action were included. Data were often qualified as estimated due to recoveries being outside the acceptance criteria. In cases where the recoveries were higher than the acceptance criteria, the results have the potential of being similarly biased high and using these data in the risk assessment could result in risks being calculated that are higher than would be associated with actual Site conditions. Of more concern for the HHRA is underestimation of risk, which could be associated with the use of data that are biased low. Results associated with the following QA/QC issues could lead to results that are biased low, and were subjected to further scrutiny during the data usability evaluation:

- Results associated with holding time exceedances;
- Results associated with calibration violations indicating a low bias;
- Results associated with MS/MSD recoveries below acceptance criteria; and/or
- Results associated with surrogate percent recoveries below laboratory control limits.

Such data, which are listed above in Section 4.5, were evaluated during the data usability process to determine whether it was appropriate to use them in the risk assessment. With the exception of the rejected data points, the data usability determined that the estimated results listed in Section 4.5 were appropriate for use in the risk assessment, as discussed below.

4.7.1 Holding Time Exceedences

There is a potential for analyte loss if the holding time for a sample is exceeded. For the Site, holding times were exceeded in 55 samples for aldehyde analysis. All of the samples were qualified as estimated. Since over one-half of the aldehyde analyses had holding times in exceedance, there is a potential for a low bias to the aldehyde dataset although this does not affect the results of the HHRA (see Appendix E).

4.7.2 Calibration Violations Indicating a Low Bias

Calibration violations indicating a low bias occur when either the initial or continuing calibration compound is recovered with a lower than expected response. The tables provided in Appendix E (included on the report CD in Appendix B) indicate which data are qualified with a low bias due to calibration violations. The analytes qualified include:

- Methoxychlor
- 1,4-Dioxane
- 3-Nitroaniline
- Acenaphthene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(g,h,i)perylene
- Carbazole
- Chrysene
- Dibenzo(a,h)anthracene
- Dichloroacetaldehyde
- Total Organic Carbon
- 1,2,3-Trichloropropane (flux)
- DBCP (flux)
- 1,2-Dibromoethane (flux)
- 1,2-Dichloropropane (flux)
- CFC-12 (flux)
- Chlorodibromomethane (flux)
- Cymene (flux)
- Tert-Butylbenzene (flux)

For the PAHs (acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(g,h,i)perylene, chrysene, and dibenzo(a,h)anthracene) and certain surface flux VOCs (1,2,3-trichloropropane, 1,2-dichloropropane, and CFC-12) approximately one-third of the samples were qualified as estimated with a low bias. For flux VOCs, 1,2-dibromoethane and tert-butylbenzene, all of the TO-15 results were biased low. The effect on the remainder of the analytes is limited. The dataset for the named PAHs and flux VOCs may be biased low. The confidence in the flux VOCs results is bolstered by the fact that the qualified data are limited to either the TO-15 or TO-15 SIM analysis for a single analyte, not both. It should be noted that the results for these samples were well below risk-based concentrations (e.g., BCLs).

4.7.3 MS/MSD or LCS/LCSD Recoveries Below Acceptance Criteria

During the data usability review, results associated with MS/MSD and/or LCS/LCSD recoveries that were only slightly lower than the 75 percent lower acceptance limit (*i.e.*, 50 to 75 percent recoveries for metals) were accepted as usable without further evaluation. Samples with lower percent recoveries (*i.e.*, recoveries lower than 50 percent) were reviewed more closely to assess whether it was appropriate to use them in the risk assessment. With the exception of the rejected data discussed in Section 4.5, the data qualified on the basis of MS/MSD recoveries lower than 50 percent were found acceptable for use in the risk assessment because the LCS/LCSD recoveries for those samples were within the acceptable ranges. Additionally, the results for these samples were well below risk-based concentrations (e.g., BCLs). The few sample results that were rejected do not pose a significant data gap because there are an adequate number of other niobium, perchlorate, and vinyl acetate results associated with other Site samples, which were used in the risk assessment.

4.7.4 Surrogate Percent Recoveries Below Laboratory Control Limit

Eight samples were identified with low surrogate recoveries during the data usability review. Seven of the samples were from the aldehyde (EPA 8270 Modified) analysis and one from surface flux (TO-15 SIM) analysis. Surrogate recovery exceedances are often an indication of sample-specific matrix effects. The flux sample was analyzed using both TO-15 and TO-15 SIM methods. SIM is a technique employed to provide data with lower SQLs and typically reduces matrix interferences. Only the TO-15 SIM result displayed low surrogate recoveries. The laboratory did not re-run a dilution of this sample to minimize matrix effects because a dilution would bring the SQLs to levels similar to the TO-15 scan, lessening the usefulness of the SIM results. Since there were seven aldehyde samples with low surrogate recoveries, there was likely a matrix effect, however, it was not severe enough to result in a rejection of the data (i.e. recovery less than 10 percent). Additionally, the seven samples represent less than one-tenth of the aldehyde dataset and are not indicating a bias to a large portion of the dataset. Finally, the results for these samples were well below risk-based concentrations (e.g., BCLs).

5.0 SELECTION OF CHEMICALS OF POTENTIAL CONCERN

The broad suite of analytes sampled for was the initial list of potential COPCs at the Site. However, in order to ensure that a risk assessment focuses on those substances that contribute the greatest to the overall risk (USEPA 1989); two procedures were used to eliminate the COPCs for quantitative evaluation in the risk assessment:

- identification of chemicals with detected levels similar to background concentrations (where applicable), and
- identification of chemicals that are infrequently detected at the Site.

Following USEPA guidance (1989), compounds reliably associated with Site activities based on historical information were not eliminated from the risk assessment, even if the results of the procedures given in this Section indicate that such elimination is possible. The procedures for evaluating COPCs relative to background conditions and further selection of COPCs are presented below.

5.1 EVALUATION OF CONCENTRATIONS RELATIVE TO BACKGROUND CONDITIONS

Some chemicals at the Site, particularly metals and radionuclides, are known to be naturally-occurring constituents of soils and groundwater. A risk assessment should consider the contribution of background concentrations to overall Site risks, as differentiated from those concentrations associated with historic Site operations or regional anthropogenic conditions. Therefore, it is necessary to establish site-specific background conditions to support the risk assessment.

The 2008 supplemental shallow soil background study was conducted for the purpose of collecting and analyzing data for metals and radionuclides in background shallow soils that are comparable to Site soils in geologic units not covered by the *Background Shallow Soil Summary Report* (BRC/TIMET 2007) dataset collected in 2005. The supplemental background study was primarily undertaken because background comparisons for arsenic have failed at both the Mohawk and Parcel 4B sub-areas. However, there is no history of arsenic contamination at these sites; therefore, some consideration has been given to the possibility that the eastern part of the Site exhibits different background levels of arsenic and, potentially, other metals. The supplemental shallow soil background sampling event specifically targeted the lithologic units defined as “Pediment and fan deposits of the River Mountains” (Qr_1 and Qr_2, respectively) depicted as being located in the eastern-most corner of the BMI Common Areas[25] in the Nevada Bureau of Mines and Geology (NBMG) *Las Vegas SE Folio Geologic Map (1977) and the Geologic Map of the Henderson Quadrangle, Nevada* (NBMG 1980) (see Figure 12, Qr_1 and Qr_2 labels). This part of the Site is close to the northern part of the River Mountains range.

As indicated in the *2008 Supplemental Shallow Soil Background Report* (BRC and ERM 2009b; approved by NDEP on September 17, 2009), "Based on sampling location characteristics, information obtained from published documentation, site inspection, and sample collection, it is reasonable to conclude that the background samples collected as part of this investigation reflect shallow background soil conditions that may be used to support assessments of soils at the Mohawk sub-area and Parcel 4B."

The background sampling locations were selected because they exhibited the following characteristics:

- They are off-Site locations, in relatively close proximity to the Site (across Lake Mead Parkway, adjacent to the Site); however, they are upgradient and sufficiently distant from the Site such that impacts from Site operations are not likely;
- They are upwind of the Site (wind direction plots indicate the predominant wind direction is from the south and southwest) and are thus less likely to have been affected by aerial deposition of wind-borne dusts or vapors from Site operations; and
- They are upslope of the Site and are thus unlikely to have been affected by overland surface-water transport of potentially contaminated site soils.

Therefore, the 2008 supplemental shallow soil background dataset is considered representative of site background conditions and is used in the HHRA for this Site.

Background comparisons were performed using the Quantile test, Slippage test, the *t*-test, and the Wilcoxon Rank Sum test with Gehan modification. The computer statistical software program, Guided Interactive Statistical Decision Tools (GiSdT®; Neptune and Company 2009), was used to perform all background comparison statistics. A weight of evidence approach is utilized to interpret the results of these analyses. If the detection frequency in both Site and background datasets are greater than 40 percent then the following rationale is used for

[25] These units fall within the Mohawk sub-area and the eastern portion of Parcel 4B.

evaluation: where one or two results fail, the remaining testing and statistical information (boxplots, summary statistics) are reviewed to support decision making whether the chemical should be considered consistent with background (as described by the rationale in the table below); and where three or more statistical tests fail, the constituent is considered inconsistent with background. If the detection frequency is less than 40 percent in either the background or Site datasets, then the constituent is evaluated based on boxplots and summary statistics.

For samples with primary and field duplicate results, the Site sample and field duplicate are treated as independent samples and both are included in all subsequent data analyses, regardless of whether one or both are non-detect. This is considered appropriate because field duplicate samples represent a discrete and unique measurement of soil chemical conditions proximal to the primary sample (unlike split samples). The field duplicates were compared to the primary sample during the course of data validation. Of the 13 duplicate pairs, all of them required some qualification to a subset of the analytes. The variances were not out of the line with the variance in results across the Site. Therefore, as distinct soil chemical measurements, they are treated as unique samples in the analyses. As noted in Section 3.3, consistent with NDEP guidance (NDEP 2008a), for samples that underwent re-analysis, the original sample result and re-analysis result(s) were averaged, and the average value used.

The 2008 supplemental background dataset as a whole was compared to HHRA dataset as a whole. The results of the background comparison evaluation are presented in Table 7, and summarized below.

Chemical	Greater than Background?	Basis
Aluminum	NO	Multiple tests
Antimony	YES	Low detection frequency; a single detection at the Site, however many DLs were raised at Site due to blank contamination.
Arsenic	NO	Multiple tests
Barium	NO	Multiple tests
Beryllium	YES	A single test failed, however, multiple Site detections exceed the background max.
Boron	NO	Low detection frequency; Site Max, Mean < Background Max, Mean
Cadmium	NO	Multiple tests
Calcium	NO	Multiple tests
Chromium (Total)	YES	Statistically similar to background; however, three high Site results were re-analyzed and confirmed. Considered greater than background.
Chromium (VI)	YES	ND in background
Cobalt	YES	Statistically similar to background; however, three high Site results were re-analyzed and confirmed. Considered greater than background.

Chemical	Greater than Background?	Basis
Copper	NO	Multiple tests
Iron	NO	Multiple tests
Lead	NO	Multiple tests
Lithium	NO	Low detection frequency; Site mean, median < background mean, median. Max at Site and background are similar; detection limit less than residential BCL.
Magnesium	NO	Multiple tests
Manganese	NO	Multiple tests
Mercury	YES	ND in background
Molybdenum	YES	Statistically similar to background, however, max detect is >6 times the background max.
Nickel	YES	A single test failed, however, multiple Site detections exceed the background max.
Niobium	YES	Multiple tests
Palladium	NO	Multiple tests
Phosphorus (as P)	NO	Multiple tests
Platinum	NO	ND in both Site and background datasets; no BCL established
Potassium	NO	Multiple tests
Selenium	NO	ND in both Site and background datasets; detection limit less than residential BCL
Silicon	NO	Multiple tests
Silver	YES	Statistically similar to background, however, max detect is >2 times the background max with several Site detections exceeded the max background.
Sodium	NO	Multiple tests
Strontium	NO	Multiple tests
Thallium	YES	Multiple tests
Tin	YES	Multiple tests
Titanium	NO	Multiple tests
Tungsten	YES	Multiple tests
Uranium	NO	Multiple tests
Vanadium	YES	Multiple tests
Zinc	YES	Statistically similar to background, however, max detect is >3 times the background max.
Zirconium	NO	Multiple tests
Radium-226	NO	Multiple tests
Radium-228	NO	Multiple tests
Thorium-228	NO	Multiple tests
Thorium-230	NO	Multiple tests
Thorium-232	NO	Multiple tests
Uranium-233/234	NO	Multiple tests
Uranium-235/236	NO	Low detection frequency; results are comparable to background and other

Chemical	Greater than Background?	Basis
		radionuclides are in equilibrium.
Uranium-238	NO	Multiple tests

In addition, in order to evaluate Site-wide concentrations of cobalt and vanadium outside their respective exposure areas (pond PUC-2 for cobalt and pond PUA-3 for vanadium), background comparisons were conducted for cobalt using all data except pond PUC-2 data, and for vanadium using all data except pond PUA-3 data.[26] Results of these evaluations indicate that cobalt, outside of pond PUC-2, are similar to background levels, while vanadium, outside of pond PUA-3, exceed background levels. Therefore, cobalt is only included as a COPC for the pond PUC-2 exposure area. Vanadium is included as a COPC for a three exposure areas.

Cumulative probability plots and side-by-side boxplots[27] were also prepared and are included in Appendix G. These plots give a visual indication of the similarities between the Site and background datasets. The results of this comparison indicate that levels of beryllium, total chromium, hexavalent chromium, cobalt, mercury, nickel, niobium, thallium, tin, tungsten, and vanadium exceed background levels. Due to the large number of sample data in both the Site and background datasets, even small differences between the two are identified as statistically significant. The metals identified above as greater than background are evaluated further in the HHRA.

For radionuclides, secular equilibrium exists when the quantity of a radioactive isotope remains constant because its production rate (due to the decay of a parent isotope) is equal to its decay rate. In theory, if secular equilibrium exists, the parent isotope activity should be equivalent to the activity of all daughter radionuclides. Pure secular equilibrium is not expected in environmental samples because of the effect of natural chemical and physical processes. However, approximate secular equilibrium is expected under background conditions (NDEP 2009a). Both the thorium-232 and uranium-238 chains were determined to be in approximate secular equilibrium following equivalence testing outlined in NDEP's *Guidance for Evaluating*

[26] Background comparisons were not conducted for cobalt within pond PUC-2 or for vanadium within pond PUA-3. These metals were assumed to exceed background levels without statistical testing. Although it could be argued that background comparisons should be performed for all metals for the three exposure areas separately; data for the other metals look the same across the Site, in which case they are all equally representative of any part of the Site (see Section 6.1.1). It is only cobalt and vanadium for which this is not the case.
[27] Background boxplots were segregated by depth (and all data), while the Site boxplots were segregated by their classification in the initial SAP; that is, fill, fill/surface, surface, and subsurface (and all data). This is different than how the data were segregated in the development of exposure point concentrations as presented in Section 6.1.

Secular Equilibrium at the BMI Complex and Common Areas February (NDEP 2009a). The results of the equivalence testing for secular equilibrium are as follows:

Chain	Equivalence Test		Secular Equilibrium?	Mean Proportion			
	Delta	p-value		Ra-226	Th-230	U-233/234	U-238
U-238	0.1	0	Yes	0.2426	0.2626	0.2717	0.2232
				Ra-228	Th-228	Th-232	
Th-232	0.1	0	Yes	0.341	0.3629	0.2961	

Therefore, since no radionuclides failed any background tests and are in secular equilibrium, all radionuclides are considered to be similar to background. In addition, uranium as a metal showed no statistical difference between site and background data. Radionuclides are therefore not evaluated further in the HHRA.

5.2 FURTHER SELECTION OF COPCS

The procedure for evaluating chemicals relative to background conditions was presented above. Further COPC selection was performed on the remaining chemicals by:

- Considering chemicals positively identified in at least one sample for inclusion as potential COPCs, including: (1) chemicals with no qualifiers attached (excluding non-detect results with unusually high detection limits, if warranted), and (2) chemicals with qualifiers attached that indicate known identities but estimated concentrations (*e.g.*, J-qualified data); and

- Further evaluation of chemicals included those detected at levels significantly elevated above levels of the same chemicals detected in associated blank samples (as described in SOP-40 (BRC, ERM and MWH, 2008).

Another criterion that may warrant chemical reduction is the frequency of detection. In general, chemicals exhibiting a low frequency of detection do not contribute significantly to the risk estimates. USEPA (1989) suggests that chemicals with a frequency of detection less than or equal to five percent, with the exception of metals, known human carcinogens, and persistent, bioaccumulative, and toxic (PBT) chemicals as defined by the USEPA PBT program, may be considered for elimination. Prior to eliminating a chemical based on the frequency of detection criteria, (1) any elevated detection limits are addressed, and (2) data distributions within the Site are considered. Results of the selection of COPCs, including the rationale for excluding chemicals as COPCs are presented in Tables 8A (PUC-2), 8B, (PUA-3) and 8C (Site-wide). The chemicals eliminated due to a low frequency of detection are as follows:

- Endrin aldehyde
- Benzyl butyl phthalate

- Bis(2-ethylhexyl)phthalate
- 1,3,5-Trimethylbenzene
- Acetonitrile
- Ethylbenzene
- Methyl ethyl ketone
- Cyanide
- 1,1,1,2-Tetrachloroethane
- 1-Nonanal
- Ethanol
- m,p-Xylene
- Toluene

The maximum detections of these chemicals were compared to the residential BCL if available to determine if there was a potential hotspot. None of the maximum detects were greater than the BCL.

Consistent with the ATSDR *Update to the ATSDR Policy Guideline for Dioxins and Dioxin-Like Compounds in Residential Soil* (2008a), if the TCDD TEQ concentrations do not exceed the ATSDR screening value of 50 ppt (and NDEP residential BCL) of 50 ppt for any sample within the Site, dioxins/furans are not retained as COPCs. Therefore, because this criterion is met for the Site, dioxins/furans are not considered COPCs, and are not evaluated further in the HHRA.

The resulting COPCs for soil are:

Chemical	COPC		
	PUC-2	**PUA-3**	**Site-Wide**
Inorganics			
Ammonia	Yes	Yes	Yes
Antimony	Yes	Yes	Yes
Beryllium	Yes	Yes	Yes
Chromium (Total)	Yes	Yes	Yes
Chromium (VI)	Yes	Yes	Yes
Cobalt	Yes	No	No
Fluoride	Yes	Yes	Yes
Mercury	Yes	Yes	Yes
Molybdenum	Yes	Yes	Yes
Nickel	Yes	Yes	Yes
Nitrate (as N)	Yes	Yes	Yes
Perchlorate	Yes	Yes	Yes
Silver	Yes	Yes	Yes

Chemical	COPC		
	PUC-2	PUA-3	Site-Wide
Inorganics			
Thallium	Yes	Yes	Yes
Tin	Yes	Yes	Yes
Tungsten	Yes	Yes	Yes
Vanadium	Yes	Yes	Yes
Zinc	Yes	Yes	Yes
Pesticides			
2,4-DDE	Yes	Yes	Yes
4,4-DDE	Yes	Yes	Yes
4,4-DDT	Yes	Yes	Yes
Beta-BHC	Yes	Yes	Yes
Volatile Organic CompoundsCompunds			
Acetaldehyde	Yes	Yes	Yes
Formaldehyde	Yes	Yes	Yes
1,2,4-Trimethylbenzene	Yes	Yes	Yes
Acetone	Yes	Yes	Yes
Benzene	Yes	Yes	Yes
Dichloromethane	Yes	Yes	Yes

The above procedures apply to soil results. Indoor air exposures are evaluated on a sample by sample basis, per NDEP requirements, using the surface flux data measurements. Because of this, selection of COPCs from the surface flux data is not conducted. Instead, every chemical detected in an individual surface flux location is included in the evaluation for that location. Therefore, the minimum and maximum surface flux risk estimates are summed with the soil risk estimates to provide a range of cumulative risks.

6.0 HUMAN HEALTH RISK ASSESSMENT

This Section presents the HHRA of all COPCs identified in Section 5 for all receptors of concern via all complete pathways. The methods used in the risk assessment follow standard USEPA guidance. Specifically, the methods used in the risk assessment followed basic procedures outlined in the USEPA's *Risk Assessment Guidance for Superfund: Volume I—Human Health Evaluation Manual* (USEPA 1989). Other guidance documents consulted include:

- *Risk Assessment Guidance for Superfund: Volume I—Human Health Evaluation Manual. Supplemental Guidance: Standard Default Exposure Factors*. USEPA. 1991b.
- *Guidelines for Exposure Assessment*. USEPA. 1992b.
- *Soil Screening Guidance: Technical Background Document*. USEPA 1996.
- *Exposure Factors Handbook, Volumes I-III*. USEPA 1997.
- *Soil Screening Guidance for Radionuclides*. USEPA. 2000b.
- *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*. USEPA 2002b.
- *Technical Support Document for a Protocol to Assess Asbestos-Related Risk. Final Draft.* USEPA. 2003b.
- *Child-Specific Exposure Factors Handbook*. USEPA 2006.
- *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)*. USEPA 2004e.
- *Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)*. USEPA 2009.

Various NDEP guidance documents are also relied on for the HHRA. These include:

- *Supplemental Guidance for Assessing Data Usability for Environmental Investigations at the BMI Complex and Common Areas in Henderson, Nevada*. NDEP 2008b.
- *Guidance for Evaluating Secular Equilibrium at the BMI Complex and Common Areas.* NDEP 2009a.

- *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils for the Basic Management Incorporated (BMI) Complex and Common Areas.* NDEP 2009d, 2010b.

- *Supplemental Guidance on Data Validation.* NDEP 2009b,c.

- *Guidance for Evaluating Radionuclide Data for the BMI Plant Sites and Common Areas Projects.* NDEP 2009e.

The risk assessment is a deterministic risk assessment; meaning that, single values based on conservative assumptions are used for all modeling, exposure parameters, and toxicity criteria. These conservative estimates compound each other so that the calculated risks likely exceed the true risks at the Site.

The method used in the risk assessment consists of several steps. The first step is the calculation of exposure point concentrations representative of the particular area, for each media of concern. This step includes fate and transport modeling to predict concentrations that may be present when direct measurements are not available. The second step is the exposure assessment for the various receptors present in the particular areas. The next step is to define the toxicity values for each COPC. The final step is risk characterization where theoretical upper-bound cancer risks and non-cancer HIs are calculated.

6.1 DETERMINATION OF EXPOSURE POINT CONCENTRATIONS

A representative exposure concentration is a COPC-specific and media-specific concentration value. In risk assessment, these exposure concentrations are values incorporated into the exposure assessment equations from which potential baseline human exposures are calculated. As described below, the methods, rationale, and assumptions employed in deriving these concentration values follow USEPA guidance and reflect site-specific conditions.

Chemical, physical, and biological processes may affect the fate and transport of chemicals in water, soil, and air. Chemical processes include solubilization, hydrolysis, oxidation-reduction, and photolysis. Physical processes include advection and hydrodynamic dispersion, volatilization, dispersion, and sorption/desorption to soil, sediment, and other solid surfaces. Biological processes include biodegradation, bioaccumulation, and bioconcentration. All of these processes are dependent upon the physical and chemical properties of the chemicals, the physical and chemical properties of the soil and water, and other environmental factors such as temperature, humidity, and the conditions of water recharge and movement. The net effect of these environmental factors is a time-dependent reduction of chemical concentrations in water, soil, and air. The determination of exposure point concentrations for media other than soil take into account chemical-specific physical parameters and inter-media transfers as discussed below. All modeling input parameters, calculations and results are presented in Appendix H (included on the report CD in Appendix B).

6.1.1 Soil

Due to the uncertainty associated with determining the true average concentration at a site, where direct measurements of the site average are unavailable, the USEPA recommends using the lower of the maximum detected concentration or the 95 percent UCL as the concentration of a chemical to which an individual could be exposed over time (USEPA 1992b). For the 95 percent UCL concentration approach, the 95 percent UCL was computed in order to represent the area-wide exposure point concentrations. The 95 percent UCL is a statistic that quantifies the uncertainty associated with the sample mean. If randomly drawn subsets of site data are collected and the UCL is computed for each subset, the UCL equals or exceeds the true mean roughly 95 percent of the time. The purpose for using the 95 percent UCL is to derive a conservative, upper-bound estimate of the mean concentration, which takes into account the different concentrations a person may be exposed to at the Site. That is, an individual will be exposed to a range of concentrations that exist at an exposure area, from non-detect to the maximum concentration, over an entire exposure period.

The 95 percent UCL statistical calculations were performed using the computer statistical software program GiSdT® (Neptune and Company 2009). See Section 5.1 for how sample locations with field duplicates were treated prior to the 95 percent UCL statistical calculations. For these calculations, chemical non-detect results are assigned a value of one-half the SQL. The formulas for calculating the 95 percent UCL COPC concentration (as the representative exposure concentration) are presented in USEPA (1992c, 2002c) and GiSdT® (Neptune and Company 2009). Three UCL methods are employed in the GiSdT® software. They include the Student's t UCL, the bootstrap percentile UCL and the bootstrap BCa UCL. The maximum UCL of these three methods was used as the exposure point concentration, unless the maximum UCL of the three methods was greater than the maximum detected concentration. In these cases, the maximum detected concentration was selected as the exposure point concentration.

The representativeness of the 95 percent UCLs for each of the three exposure areas, is further supported by the intensity plot figures included in Appendix I. Figures for each of the COPCs are included in Appendix I (in addition, figures have been developed for arsenic and TCDD TEQ; although not COPCs for the Site, these are primary chemicals of interest for the project). Based on the results of the background comparison tests, a review of the probability plots, boxplots, and intensity plot figures, data across the Site are assumed to be uncorrelated, that is, there is no discernable spatial correlation.[28] Although there may be spatial correlation of data across the Site, it has not been evaluated directly. Instead the assumption is made for statistical testing purposes that the data are not spatially correlated. This results in lower p-values and hence a greater number of statistical differences than would be the case if spatial correlation is accounted for. Because ignoring correlation causes conservatism in this sense, the need to evaluate spatial correlation is not warranted. Therefore consistent with the project *Statistical Methodology Report* (NewFields 2006), each measurement is assumed to be equally representative for that chemical at any point in the Site. Following an assessment of spatial distributions of the COPCs, it was subsequently warranted to divide the Site into three exposure areas: (1) PUC-2 (where cobalt required an exposure area specific UCL and Site-wide UCLs were supported for all other COPCs, (2) PUA-3 where vanadium required an exposure area specific UCL and Site-wide UCLs were supported for all other COPCs, and (3) a “Site-wide” exposure area where Site-wide UCLs were used for all COPCs.

Representative exposure concentrations for soil are based on the potential exposure depth for each of the receptors. For all receptors, five different exposure depths are considered, based on the sample depth rules schematic presented in Section 3: all data (surface, subsurface and fill), data classified as fill material only, data classified as fill material and/or surface soil, data classified as surface soil only, and all data excluding data classified as fill material.

These different soil exposure classifications are considered to represent all possible exposure potential for all receptors, based on the future grade and use of Site soils. 95 percent UCLs are calculated for each of these five different exposure depth scenarios. Although specific-receptors would not necessarily be exposed to all depth ranges (for example, residents and construction workers are considered to have potential exposures to 10 feet bgs, while commercial workers only to surface soils), in order to be conservative, the highest of the five values was used in the risk estimates for each COPC. The 95 percent UCL for each COPC is presented in Tables 9A (PUC-2), 9B (PUA-3), and 9C (Site-wide). For indirect exposures, this concentration was used in fate and transport modeling.

[28] Although the Statistical Methodology Report states that confirmation measurements of each chemical in a given soil layer will be used to compute variograms, as noted in the text above, this was not conducted for the Site, which is a deviation from the *BRC Closure Plan* methodology.

The exposure point concentrations for asbestos (USEPA 2003b, NDEP 2009d) were based on the pooled analytical sensitivity of the dataset. The asbestos data and analytical sensitivities are presented in Table 10. Therefore, asbestos exposure point concentrations are determined differently than those for the other COPCs. The pooled analytical sensitivity is calculated as follows:

$$\textit{Pooled Analytical Sensitivity} = 1/\left[\sum_i \textit{(1/analytical sensitivity for trial i)}\right]$$

Two estimates of the asbestos concentration were evaluated, best estimate and upper bound as defined in the draft methodology (USEPA 2003b). The best estimate concentration is similar to a central tendency estimate, while the upper bound concentration is comparable to a reasonable maximum exposure estimate. The pooled analytical sensitivity is multiplied by the number of chrysotile or amphibole structures to estimate concentration:

$$\text{Estimated Bulk Concentration } (10^6 \text{ s/gPM10}) = \text{Long fiber count} \times \text{Pooled analytical sensitivity}$$

For the best estimate, the number of fibers measured across all samples is incorporated into the calculation above. The upper bound of the asbestos concentration was also evaluated. It is calculated as the 95 percent UCL of the Poisson distribution mean, where the Poisson mean was estimated as the total number of structures detected across all samples. In EXCEL, the following equation may be employed to calculate this value:

95% UCL of Poisson Distribution Mean = CHIINV(1-upper confidence percentile, 2 × (Long fiber count + 1))/2

This value is then multiplied by the pooled analytical sensitivity to estimate the upper bound concentration. The intent of the risk assessment methodology was to predict the risk associated with airborne asbestos. In order to quantify the airborne asbestos concentration, the estimated dust levels or particulate emission factors (PEFs) were used:

$$\text{Estimated Airborne Concentration } (\text{s/cm}^3) = \text{Estimated bulk concentration } (10^6 \text{ s/gPM10}) \times \text{Estimated dust level } (\text{ug/cm}^3)$$

Further explanation of the asbestos risk calculations and estimates are provided in NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009c, 2010b).

6.1.2 Indoor Air

USEPA's 2002 Vapor Intrusion Guidance

BRC has reviewed USEPA's 2002 Vapor Intrusion Guidance (2002d), and believes that the approach used for the Site conforms to this guidance. The guidance recommends that a Tiered approach be followed to address vapor intrusion. BRC has followed a tiered approach for each of the Eastside sub-areas, including the Mohawk sub-area.

First, in each of the sub-area Sampling and Analysis Plans (SAPs), including that for Mohawk, BRC has identified each of the chemicals (VOCs and volatile SVOCs) to be evaluated further in each sub-area (that is, a Tier 1 assessment).

Second, BRC explicitly compared the existing groundwater data for wells that are located within (or adjacent to) that sub-area with the USEPA 2002 Tier 2 comparison values (provided in lookup tables in the guidance document). Thus, this Tier 2 assessment was done in the NDEP-approved SAPs for each of the sub-areas. The Tier 2 comparison table for the Mohawk sub-area is provided in Appendix J (Table J-1). As shown in this table no chemicals exceed their respective comparison levels, thus the Site passes a Tier 2 assessment.

Third, BRC has conducted a site-specific human health risk assessment for vapor intrusion using surface flux data on a sample-by-sample basis, per NDEP recommendations (that is, a Tier 3 assessment; see below). As noted in USEPA's 2002 guidance for a Tier 3 site-specific assessment: "If buildings are not available or not appropriate for sampling, for example in cases where future potential impacts need to be evaluated, … other more direct measures of potential impacts, such as emission flux chambers or soil gas surveys, may need to be conducted in areas underlain by subsurface contamination." Thus flux measurements are allowed under USEPA's guidance.

Fourth, BRC has also evaluated the various factors pertaining to vapor intrusion, including depth to groundwater (now and in the future), the nature of the soil column from ground surface to groundwater, and, water quality (*i.e.*, the constituents likely to be present in groundwater and which might pose any vapor intrusion concerns). BRC has performed a more detailed site-specific evaluation of vapor intrusion potential at a comparison study area within the Eastside property. Based on site-specific conditions, including depth to groundwater (which is comparable at the Site and at the comparison study area, considering various wells as well as present versus future conditions, etc.), VOC concentrations in groundwater (which are dramatically lower at the Site than in the comparison study area - for example, chloroform concentration in groundwater of <10 µg/L at the Site versus 250 to 900 µg/L at the comparison study area), and expected similar soil physical property, the comparison study area presents a greater potential for vapor intrusion than the Site. See the table below for various parameters.

Parameter	**Comparison Study Area**	**Mohawk Sub-Area**	**Units**
Particle Density	1.8	ND	g/cm^3
Percent Moisture	4.46	4.46	percent
Porosity	33.8	ND	percent
Bulk Density	2.7	ND	g/cm^3
Organic Carbon Content	1.1	0.77	percent
USCS Soil Types	SM/GM/GW/ML	SM/GM/GW/ML	--
Depth to Groundwater	49 to 60	49 to 68	ft bgs
Chloroform in Groundwater	250 to 900	< 10	µg/L

ND = No data were collected since these are not required for flux calculations. However, given the proximity and depositional profile, these parameters are expected to be similar.

BRC has performed a detailed evaluation of vapor intrusion risk assessments for chloroform at the comparison study area location, showing that risks were acceptable (residential indoor cancer risks ranged from 1×10^{-8} to 4×10^{-7}, and non-cancer HIs were well below 1.0). The comparison study area risk estimate calculations are provided electronically in Appendix J (included on the report CD in Appendix B). Input parameters and results for the indoor air calculations for the comparison study area location are also provided in Appendix J (Tables J-2 through J-6).

Finally, BRC is aware of USEPA's recent *Review of the Draft 2002 Subsurface Vapor Intrusion Guidance*. Issues and recommendations identified in this documents as well as the USEPA Office of Inspector General's *Evaluation Report—Lack of Final Guidance on Vapor Intrusion Impedes Efforts to Address Indoor Air Risks* (December 14, 2009), focus primarily on Tier 1 and Tier 2 assessments, and ultimately will not affect how indoor air exposures have been evaluated for the Site.

Site-Specific Tier 3 Assessment

Concentrations of volatile constituents (VOCs and certain SVOCs) in soil and groundwater that may infiltrate buildings to be constructed at the Site through cracks in the foundations are estimated using USEPA surface emission isolation flux chamber (flux chamber) measurements collected at the Site in accordance with USEPA guidance (USEPA 1986) and the Flux Chamber SOP-16 (BRC, ERM, and MWH 2008). The flux chamber is used to measure the emission rates from surfaces emitting gas species. Use of the flux chamber reduces the need for modeling surface flux rates, which potentially reduces the uncertainty in the air representative exposure concentrations and the risk characterization. Because the flux chamber measurements were conducted outdoors on open soil, an "infiltration factor" is applied to the outdoor flux data to generate data supporting the inhalation of indoor air exposure pathway. The infiltration factor is based on the factors found in the American Society for Testing and Materials (ASTM) *Standard Guide for Risk Based Corrective Action* (2000). The indoor air concentrations are determined from the flux measurements using the following mixing equation:

$$C_a = \frac{J \times \eta}{L \times ER}$$

where:

C_a	=	indoor air concentration (milligram per cubic meter [mg/m^3])
J	=	measured flux of chemical (mg/m^2-min)
η	=	foundation crack fraction (unitless)
L	=	enclosed space volume/infiltration area ratio (meter [m])
ER	=	enclosed space air exchange rate (1/min)

Default parameter values from ASTM (2000) for residential buildings were used. These default parameters are presented in the electronic indoor air calculation files in Appendix H (included on the report CD in Appendix B). As noted in Section 5.2, indoor air exposures are evaluated on a sample by sample basis, per NDEP requirements, using the surface flux data measurements. Every chemical detected in an individual surface flux location is included in the evaluation for that location.

Indoor air concentrations based on the surface flux data measurements are shown in the electronic indoor air calculation files in Appendix H (included on the report CD in Appendix B) and are summarized in Table 11. In all cases the maximum of the two flux chamber measurements (TO-15 full scan and TO-15 SIM) is used. ~~See Section 7.1 regarding analytical issues for DBCP and 1,2-dibromoethane.~~

Basic Remediation COMPANY

6.1.3 Outdoor Air

Long–term exposure to COPCs bound to dust particles is evaluated using the USEPA's PEF approach (USEPA 2002b). The PEF relates concentrations of a chemical in soil to the concentration of dust particles in the air. The Q/C (Site-Specific Dispersion Factor [USEPA 2002b]) values in this equation are for Las Vegas, Nevada (Appendix D of USEPA 2002b). The equation used is:

$$\text{PEF} = \text{Q/C}_{\text{wind}} \ \text{x} \ \frac{3{,}600 \text{ sec/hr}}{0.036 \text{ x } (1 - \text{V}) \text{ x } (\text{U}_\text{m} / \text{U}_\text{t})^3 \text{ x F(x)}}$$

where:

PEF	=	Particulate emission factor (m^3/kg)
Q/C_{wind}	=	Inverse of the ratio of the geometric mean air concentration to the emission flux at the center of a square source (g/m^2 -s per kg/m^3)
V	=	Fraction of vegetative cover (unitless)
U_m	=	Mean annual windspeed (m/s)
U_t	=	Equivalent threshold value of windspeed at 7m (m/s)
F(x)	=	Function dependent on U_m/U_t derived using USEPA (1985) (unitless)

and

$$\text{Q/C}_{\text{wind}} = A \times \exp\frac{(\ln A_{site} - B)^2}{C}$$

where

A_{site}	=	Source Area (acre)
A, B, C	=	Air Dispersion Constants for LV (unitless)

The dust model and parameters utilized to generate the PEF are presented in Table 12.

The USEPA guidance for dust generated by construction activities (USEPA 2002b) was used for assessing short-term construction worker exposures:

$$PEF = \frac{1}{\left(\left(\frac{1}{PEF_{sc}}\right) + \left(\frac{1}{PEF_{sc\_road}}\right)\right)}$$

where:

PEF_{sc} = Subchronic particulate emission factor for construction activities (m^3/kg)
PEF_{sc_road} = Subchronic particulate emission factor for unpaved road traffic (m^3/kg)

Input soil concentrations for the model are the exposure point concentrations as described above. The construction dust model and all relevant equations and parameters utilized to generate the construction worker PEF from this guidance are provided in Table 13. Site-specific surface soil moisture data were collected in January, May, June, July, and November. The average of the surface soil data is 3.6 percent. This is considered an adequate representation of an annual average, therefore, this value is used for the percent moisture in dry road surface parameter instead of the NDEP model default value.

In addition, for receptors with indoor exposures (*i.e.*, residents, indoor commercial workers), a dilution factor is applied to obtain an indoor air concentration of dust particles, based on USEPA (2000b).

The flux chamber measurements as described in Section 6.1.2 above are used for exposures to VOCs and volatile SVOCs in outdoor air if the chemical was present in the TO-15 analyte list. If the VOC or volatile SVOC was measured in soil but not on the TO-15 analyte list, then the exposure point concentration was estimated using USEPA's volatilization factor. Outdoor flux data are divided by the dispersion factor for volatiles (Q/C_{vol} for Las Vegas; from USEPA 2002b) for use in the outdoor air exposure pathway. The same dispersion factor is used for all scenarios. The dispersion factor for the construction worker is not adjusted to account for soil intrusion activities. Outdoor air concentrations based on soil data for all receptors are shown in Table 14. Outdoor air concentrations based on the surface flux data measurements are shown in the electronic indoor air calculation files in Appendix H (included on the report CD in Appendix B) and are summarized in Table 11.

6.1.4 Homegrown Produce

Consistent with the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised March 2010) and USEPA guidance, the consumption of homegrown produce is an applicable exposure pathway for residential receptors. Representative exposure concentrations in plants were obtained using the soil 95 percent UCL for each COPC, multiplied by plant uptake factors. As per the Closure Plan, plant uptake factors were obtained from USEPA (2005b) and Baes *et al*. (1984). Plant uptake factors for inorganics were obtained from empirical data, where available.

Plant uptake factors for organics are calculated based on the following equations (from USEPA 2005b):

Aboveground plant uptake factor:

$$\log Br_{above} = 1.588 - 0.578 \log K_{ow}$$

Belowground plant uptake factor:

$$Br_{below} = \frac{RCF}{Kd_s} \times VG$$

where:

Br_{above}	=	aboveground plant uptake factor (mg/kg plant DW/mg/kg soil)
Br_{below}	=	belowground plant uptake factor (mg/kg plant DW/mg/kg soil)
K_{ow}	=	octanol/water partitioning coefficient (unitless)
RCF	=	root concentration factor (mg/g plant DW/mg/mL soil water)
Kd_s	=	Soil-water partition coefficient (mL water/g soil)
VG	=	empirical correction factor for belowground produce (unitless)(0.01 for COPCs with a log Kow greater than 4 and 1.0 for COPCs with a log Kow less than 4)

Plant uptake factors are presented in Table 15. See Section 7.2.3 regarding plant uptake of perchlorate.

6.2 EXPOSURE ASSESSMENT

In a risk assessment, the possible exposures of populations are examined to determine if the chemicals at a site could pose a threat to the health of identified receptors. The risks associated with exposure to chemicals depend not only on the concentration of the chemicals in the media, but also on the duration and frequency of exposure to those media. For example, the risks associated with exposure to chemicals for one hour a day are less than those associated with exposure to the same chemicals at the same concentrations for two hours a day. Potential health impacts from chemicals in a medium can occur via one or more exposure pathways. The exposure assessment step of a risk assessment combines information regarding impacted media at a site with assumptions about the people who could come into contact with these media. The result is an estimation of a person's potential rate of contact with impacted media from the Site. The intake rates are evaluated in the risk characterization step to estimate the risks they could pose.

In this section, assumptions regarding people's activities, such as the frequency with which a person could come into contact with impacted media, are discussed. Finally, the daily doses at the points of potential human contact were estimated using these assumptions, the models described in Section 6.1, and the chemical concentrations reported for soil and flux chamber samples collected from the Site.

6.2.1 Exposure Parameters

In this section, the assumptions regarding the extent of exposure are presented for each of the exposure pathways for each medium of concern at the Site. Tables 16 and 17 present each of the exposure parameters used in the risk assessment for each receptor and each pathway. Many of the assumptions regarding the extent of exposure were default factors developed by USEPA's Superfund program. Default values were modified to reflect site-specific conditions, where possible. The exposure parameters used in the risk assessment were those defined in Tables 9-2 through 9-5 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised in March 2010).

6.2.2 Quantification of Exposure

In this section, the concentrations of COPCs at the points of potential human exposure are combined with assumptions about the behavior of the populations potentially at risk in order to estimate the dose of COPCs that may be taken in by the exposed individuals. Later, in the risk characterization step of the assessment, the doses are combined with toxicity parameters for COPCs to estimate whether the calculated intake levels pose a threat to human health.

The method used to estimate the average daily dose (ADD) for non-carcinogens COPCs via each of the complete exposure pathways is based on USEPA (1989, 1992b) guidance. For carcinogens, lifetime ADD (LADD) estimates are based on chronic lifetime exposure, extrapolated over the estimated average lifetime (assumed to be 70 years). This establishes consistency with cancer slope factors (CSFs), which are based on chronic lifetime exposures. For non-carcinogens, ADD estimates are averaged over the estimated exposure period. ADDs and LADDs were calculated for each exposure scenario using the following generic equation:

$$\text{ADD or LADD}\ (mg/kg\text{ - }day) = \frac{C \times IR \times EF \times ED \times CF \times (BIO\ or\ AF)}{AT \times BW}$$

where:

C = COPC concentration (*e.g.*, mg/kg, mg/m^3)

IR = intake rate; the amount of the transport medium contacted per unit time (*e.g.*, mg/day, m^3/day)
EF = exposure frequency (days/year)
ED = exposure duration (years)
AF/BIO = absorption fraction (percent) / relative bioavailability (unitless)
AT = averaging time; same as the ED for non-carcinogens and 70 years (average lifetime) for carcinogens
BW = body weight (kilograms)

Risk estimates for inhalation exposures follow USEPA's *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)* (USEPA 2009). That is, the concentration of a chemical in air is used as the exposure metric (*e.g.*, mg/m^3), rather than inhalation intake of a chemical in air based on inhalation rate and body weight (*e.g.*, mg/kg-day). The generic equation for calculating inhalation exposures is:

$$EC = \frac{C_{air} \ x \ ET \ x \ ED \ x \ EF}{AT}$$

where:

EC = exposure concentration (in mg/m^3)
C_{air} = chemical concentration in air (in mg/m^3)
ET = exposure time (hours per day)
ED = exposure duration (years of exposure)
EF = exposure frequency (number of days per year)
AT = averaging time; same as the ED for non-carcinogens and 613,200 hours (*i.e.*, 70 years; average lifetime) for carcinogens

Pathway-specific equations for calculating ADDs and LADDs are provided in Table 9-6 of the *BRC Closure Plan* (BRC, ERM, and DBS&A 2007; Section 9 revised March 2010).

The relative oral bioavailability (BIO) of all COPCs was assumed to be 100 percent. Chemical-specific dermal absorption values from USEPA guidance (USEPA 2004e [Part E RAGS]) were used in the risk assessment. USEPA does not recommend absorption factors for VOCs based on the rationale that VOCs are volatilized from the soil on skin and exposure is accounted for via inhalation routes. In addition, RAGS Part E (USEPA 2004e) states "For inorganics, the speciation of the compound is critical to the dermal absorption and there are too little data to extrapolate a reasonable default value." Therefore, dermal absorption factors are also not used for inorganics. NDEP and its consultants have concurred with this decision.

Exposure levels of potentially-carcinogenic and non-carcinogenic chemicals are calculated separately because different exposure assumptions apply (*i.e.*, ADD for non-carcinogens and LADD for carcinogens). Exposure levels are estimated for each relevant exposure pathway (*i.e.*, soil, air, and water), and for each exposure route (*i.e.*, oral, inhalation, and dermal). Daily doses for the same route of exposure are summed. The total dose of each chemical is the sum of doses across all applicable exposure routes. As noted previously, radionuclides are consistent with background concentrations and are not addressed in this HHRA.

6.2.3 Asbestos

Although final USEPA guidance is unavailable at this time, USEPA recommends that site-specific risk assessments be performed for asbestos (USEPA 2004f). Risks associated with asbestos in soil are evaluated using NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009d, 2010b) and the draft methodology proposed by USEPA (2003b). This methodology is an update of the method described in *Methodology for Conducting Risk Assessments at Asbestos Superfund Sites-Part 1: Protocol* and *Part 2: Technical Background Document* (Berman and Crump 1999a,b). Because the risk assessment methodology for asbestos is unlike that for other COPCs, asbestos risks are evaluated separately from other chemical risks.

The intent of the risk assessment methodology is to predict the amount of airborne asbestos, which causes an unacceptable risk to a human receptor. Asbestos concentrations are measured in soil, and are then used to predict airborne asbestos concentrations using a dust emissions model. Asbestos data are collected in the top two inches of soil. While asbestos might exist below the top two inches of soil due to soil turnover, the concentrations in the surface soil are likely to be greater than concentrations beneath the surface, and the exposure pathway is to near-surface soils. Therefore, the 'shallow' surface soils asbestos concentration estimate is used to represent the potential exposure to asbestos.

To interpret measurements of asbestos in soils, it is necessary to establish the relationship between the asbestos concentrations observed in soils and concentrations that will occur in air when such soil is disturbed by natural or anthropogenic forces. This is because asbestos is a hazard when inhaled (see, for example, Berman and Crump 2001; USEPA 2003b). In fact, the Modified Elutriator Method (Berman and Kolk 2000), which was the method employed to perform the analyses presented in this report, was designed specifically to facilitate prediction of airborne asbestos exposures based on bulk measurements (see, for example, Berman and Chatfield 1990).

Briefly, the Modified Elutriator Method incorporates a procedure for isolating and concentrating asbestos structures as part of the respirable dust fraction of a sample and analytical measurements are reported as the number of asbestos structures per mass of respirable dust in the sample. This turns out to be precisely the dimensions required to combine such measurements with published dust emission and dispersion models to convert them to asbestos emission and dispersion models. These models can be combined with measurements from the Modified Elutriator Method to predict airborne exposures and assess the attendant risks.

6.3 TOXICITY ASSESSMENT

This section describes the toxicity of the COPCs at the Site. Numerical toxicity values were developed for use in the calculation of the hazard quotients (for non-carcinogens) and risks (for carcinogens).

6.3.1 Toxicity Values

Toxicity values, when available, are published by the USEPA in the on-line Integrated Risk Information System [IRIS]; USEPA 2010). CSFs (in units of $[mg/kg\text{-}d]^{-1}$) are chemical-specific and experimentally derived potency values that are used to calculate the risk of cancer resulting from exposure to potentially carcinogenic chemicals. Inhalation unit risks (IURs) represent the upper-bound excess lifetime cancer risk from continuous exposure to a chemical at a concentration of 1 $\mu g/m^3$. A higher value implies a more potent carcinogenic potential. Reference dosages (RfDs) are experimentally derived "no-effect" levels used to quantify the extent of toxic effects other than cancer due to exposure to chemicals (in units of mg/kg-d). Similarly, a reference concentration (RfC) is the derived "no-effect" concentration for a lifetime of continuous inhalation exposure (in units of mg/m^3). With RfDs or RfCs, a lower value implies a more potent toxicant. These criteria are generally developed by USEPA risk assessment work groups and listed in the USEPA risk assessment guidance documents and databases. Available toxicity values for all Site COPCs used in the risk assessment were obtained using the following hierarchy for selecting toxicity criteria (based on USEPA 2003c):

1. IRIS

2. USEPA's Provisional Peer Reviewed Toxicity Values (PPRTVs)

3. National Center for Environmental Assessment (NCEA, or other current USEPA sources)
4. Health Effects Assessment Summary Tables (HEAST)
5. USEPA Criteria Documents (*e.g.*, drinking water criteria documents, drinking water Health Advisory summaries, ambient water quality criteria documents, and air quality criteria documents)
6. ATSDR toxicological profiles
7. USEPA's Environmental Criteria and Assessment Office (ECAO)
8. Peer-reviewed scientific literature

In addition, toxicity criteria and toxicological surrogates recommended by NDEP are used in the risk assessment. Toxicity criteria are consistent with those used in the development of NDEP's BCLs (NDEP 2010a), unless newer values are available from USEPA. Toxicity criteria have not been developed by BRC for elements or compounds that do not have criteria published in the above sources.

Although USEPA has developed toxicity criteria for the oral and inhalation routes of exposure, it has not developed toxicity criteria for the dermal route of exposure. USEPA has proposed a method for extrapolating oral toxicity criteria to the dermal route in the recently released *Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)* (USEPA 2004e). USEPA states that the adjustment of the oral toxicity factor for dermal exposures is necessary only when the oral-gastrointestinal absorption efficiency of the chemical of interest is less than 50 percent (due to the variability inherent in absorption studies). For COPCs to which dermal exposure might occur at the Site, the oral-gastrointestinal absorption efficiencies are greater than 50 percent, except for total chromium, hexavalent chromium, mercury, nickel, and vanadium. Therefore, the USEPA indicated adjustment of the oral toxicity criteria to generate dermal criteria was performed for these COPCs.

6.3.2 Non-Carcinogenic Health Effects

For non-carcinogenic health effects, USEPA assumes that a dose threshold exists, below which adverse effects are not expected to occur. A chronic RfD or RfC of a chemical is an estimate of a lifetime daily dose to humans that is likely to be without appreciable deleterious non-carcinogenic health effects. To derive an RfD or RfC, a series of professional judgments is made to assess the quality and relevance of the human or animal data and to identify the critical study and the most critical toxic effect. Data typically used in developing the RfD or RfC are the highest no-observable-adverse-effect-levels (NOAELs) for the critical studies and effects of the non-carcinogen. For each factor representing a specific area of uncertainty inherent in the extrapolation from the available data, an uncertainty factor is applied. Uncertainty factors generally consist of multiples of 10, although values less than 10 are sometimes used.

Four major types of uncertainty factors are typically applied to NOAELs in the derivation of RfDs or RfCs. Uncertainty factors of 10 are used to (1) account for the variability between humans, (2) extrapolate from animals to humans, (3) account for a NOAEL based on a subchronic study instead of a chronic study, and (4) extrapolate from a lowest-observed-adverse-effect-level (LOAEL) to a NOAEL, if necessary. In addition, a modifying factor can be used to account for adequacy of the database. Typically, the modifying factor is set equal to one.

To obtain the RfD or RfC, all uncertainty factors associated with the NOAEL are multiplied together, and the NOAEL is divided by the total uncertainty factor. Therefore, each uncertainty factor adds a degree of conservatism (usually one order of magnitude) to the RfD or RfC. An understanding of the uncertainties associated with RfDs or RfCs is important in evaluating the significance of the HIs calculated in the risk characterization portion of the risk assessment. When available sub-chronic RfDs or RfCs were used to evaluate construction worker exposures. The COPCs in this assessment with USEPA-established oral/dermal and inhalation RfDs or RfCs are presented in Tables 18 and 19, for surface flux and soil COPCs, respectively.

6.3.3 Carcinogenic Health Effects

USEPA develops CSFs and IURs from chronic animal studies or, where possible, epidemiological data. Because animal studies use much higher doses over shorter periods of time than the exposures generally expected for humans, the data from these studies are adjusted, typically using a linearized multi-stage (LMS) mathematical model. To ensure protectiveness, CSFs/IURs are typically derived from the upper 95th percentile confidence limit of the slope, and thus the actual risks are unlikely to be higher than those predicted using the CSF/IUR, and may be considerably lower. The COPCs in this assessment with USEPA-established oral/dermal and inhalation CSFs/IURs are presented in Tables 18 and 20, for surface flux and soil COPCs, respectively.

6.3.4 Asbestos

Asbestos toxicity criteria were obtained from Table 8-1 of Berman and Crump's (2001) document and Tables 8.2 and 8.3 in the USEPA (2003b) guidance. The toxicity criteria vary based on fiber type, endpoint (lung cancer, mesothelioma, or combined) and percent of fibers longer than 10µm and less than 0.4 µm in width. For this risk assessment the toxicity criteria were based on a combined endpoint of lung cancer and mesothelioma averaged over the smokers and non-smokers of the population, with the assumption that fifty percent of fibers are greater than 10 µm in length. The resulting unit risk factors (structures/cubic centimeter) are presented in Appendix H (included on the report CD in Appendix B). A complete discussion on issues associated with risk estimates for asbestos is presented in NDEP's *Technical Guidance for the Calculation of Asbestos-Related Risk in Soils* (2009c).

6.4 RISK CHARACTERIZATION

In the last step of a risk assessment, the estimated rate at which a receptor intakes a chemical is compared with information about the toxicity of that COPC to estimate the potential risks posed by exposure to the COPC. This step is known as risk characterization. The methods used for assessing cancer risks and non-cancer adverse health effects are discussed below.

6.4.1 Methods for Assessing Cancer Risks

In the risk characterization, carcinogenic risk is estimated separately as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to chemicals and asbestos. Carcinogenic risks for chemicals were evaluated by multiplying the estimated average exposure rate (*i.e.*, LADD calculated in the exposure assessment) by the chemical's CSF or IUR. The CSF converts estimated daily doses averaged over a lifetime to incremental risk of an individual developing cancer. Because cancer risks are averaged over a person's lifetime, longer-term exposure to a carcinogen results in higher risks than shorter-term exposure to the same carcinogen, if all other exposure assumptions are constant. Theoretical risks associated with low levels of exposure in humans are assumed to be directly related to an observed cancer incidence in animals associated with high levels of exposure while the IUR converts estimated exposure concentrations averaged over a lifetime to incremental risk of an individual developing cancer. According to USEPA (1989), this approach is appropriate for theoretical upper-bound incremental lifetime cancer risks (ILCRs) of less than 1×10^{-2}. The following equations were used to calculate COPC-specific risks and total risks:

$$Risk = EC \times IUR \quad or \quad LADD \times CSF$$

where:

LADD = lifetime average daily dose (mg/kg-d)
EC = exposure concentration (mg/m^3)
IUR = inhalation unit risk $(mg/m^3)^{-1}$
CSF = cancer slope factor $(mg/kg\text{-}d)^{-1}$

and

$$Total\ Carcinogenic\ Risk = \Sigma\, Individual\ Risk$$

It is assumed that cancer risks for different chemicals and from multiple exposure routes are additive, which may introduce a protective bias in the result of the cancer risk assessment. Carcinogenic risk estimates were compared to the USEPA acceptable risk range of 1 in 10,000 (10^{-4}) and 1 in 1 million (10^{-6}) and NDEP's acceptable level of 10^{-6}. If the estimated risk falls within or below this risk range, the chemical is considered unlikely to pose an unacceptable carcinogenic risk to individuals under the given exposure conditions. A risk level of 1×10^{-5} (1 E-5) represents a probability of one in 100,000 that an individual could develop cancer from exposure to the potential carcinogen under a defined set of exposure assumptions.

6.4.2 Methods for Assessing Non-Cancer Health Effects

Non-cancer adverse health effects are estimated by comparing the estimated average exposure rate (*i.e.*, ADDs estimated in the exposure assessment) with an exposure level at which no adverse health effects are expected to occur for a long period of exposure (*e.g.*, the RfDs or RfCs). ADDs (or ECs) and RfDs (or RfCs) are compared by dividing the ADD by the RfD (or EC by the RfC) to obtain the ADD:RfD (EC:RfC) ratio, as follows:

$$HQ = \frac{EC}{RfC} \ or \ \frac{ADD}{RfD}$$

where:

HQ = hazard quotient
ADD = average daily dose (mg/kg-d)
EC = exposure concentration (mg/m^3)
RfD = reference dose (mg/kg-d)

RfC = reference concentration (mg/m^3)

The ADD-to-RfD (EC-to-RfC) ratio is known as a hazard quotient (HQ). If a person's average exposure is less than the RfD or RfC (*i.e.*, if the HQ is less than 1), the chemical is considered unlikely to pose a significant non-carcinogenic health hazard to individuals under the given exposure conditions. Unlike carcinogenic risk estimates, a HQ is not expressed as a probability. Therefore, while both cancer and non-cancer risk characterizations indicate a relative potential for adverse effects to occur from exposure to a chemical, a non-cancer adverse health effect estimate is not directly comparable with a cancer risk estimate.

If more than one pathway is evaluated, the HQs for each pathway are summed to determine whether exposure to a combination of pathways poses a health concern. This sum of the HQs is known as a HI.

$$\text{Hazard Index} = \Sigma \text{Hazard Quotients}$$

Any HI less than 1.0 indicates the exposure is unlikely to be associated with a potential health concern. If the HI is greater than 1.0, then the hazard quotients are summed by the specific target organs affected by a particular chemical or chemicals. This is also summed across pathways and chemicals. Target organs are identified primarily by the source of the toxicity criteria (*e.g.*, IRIS). Since a chemical may affect more than one organ, in addition to the source of the toxicity criteria Oak Ridge National Laboratory's (ORNL) Risk Assessment Information System's (RAIS) toxicity profiles were also searched for target organ information (ORNL 2010). In this HHRA, where available, three target organs are included. The target organs for the COPCs are shown in Table 21.

6.4.3 Methods for Assessing Asbestos Risks

For assessing asbestos risks, Table 8-2 (Based on Optimum Risk Coefficients) of USEPA (2003b) was used. Table 8-2 presents best estimate risks optimized based upon separation of fiber type, size and endpoint (mesothelioma/lung cancer), thereby reducing apparent variation between the studies utilized. The values in Table 8-2 are used because they are the authors "best" estimates of potency based upon all the available data (whereas the "conservative values" presented in Table 8-3 present only the most conservative, and best "behaved" data). As described in USEPA (2003b), because the asbestos risks to male and female smokers/non-smokers are different, population averaged risks are evaluated based on Eqn. 8-1 of USEPA (2003b):

$$URF = 0.5 \times ((0.786 \times (NSM + NSF)) + ((0.214 \times (SM + SF)) \times CF$$

where:

URF	=	Population Averaged Unit Risk Factor [s/cm^3]$^{-1}$;.*g.*, mg/kg, milligrams per cubic meter [mg/m^3])
NSM	=	risk for male non-smokers
NSF	=	risk for male non-smokers
SM	=	risk for male smokers
SF	=	risk for female smokers
CF	=	factor to convert risk from risk per 100,000 to risk per 1,000,000

This equation considers male smokers, male non-smokes, female smokers, and female non-smokers. In addition, because both chrysotile and amphibole have been detected at the BMI Common Areas, both amphibole and chrysotile fibers are evaluated in the risk assessments, regardless as to whether either was detected within an exposure area (as calculated using the 95 percent UCL of the mean of the assumed underlying Poisson distribution).

The basic equation for assessing inhalation cancer risk for asbestos is analogous to that recommended by EPA for other inhalation carcinogens. As shown in Equation 11 of *Risk Assessment Guidance for Superfund, Part F* (USEPA, 2009) inhalation cancer risk is the product of an inhalation unit risk factor and an exposure concentration. The exposure concentration is a function of the asbestos air concentration, the length of time an individual is exposed, and the averaging time for which carcinogenic effects are evaluated for the unit risk factor. This calculation of asbestos related risk (ARR) is also consistent with application of Berman and Crump (2003) to risk calculations described in Berman (2003a; 2003b; 2005). The risk equation used in performing an asbestos inhalation risk assessment is:

$$ARR = \frac{C_{air} \times URF \times ET \times EF \times ED}{AT}$$

where:

C_{air}	=	air concentration of asbestos (f/cm^3) (fibers per centimeter cubed)
ET	=	exposure time (hours/day)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years)
AT	=	averaging time (hours)
URF	=	unit risk factor (risk per f/cm^3)

Asbestos risk estimates are compared to the USEPA acceptable risk range for carcinogens of 1 in 10,000 (10^{-4}) and 1 in 1 million (10^{-6}) and NDEP's acceptable level of 10^{-6}, although the risk estimates represent the probability of death from mesthelioma or lung cancer rather than the probability of contracting cancer. If the estimated asbestos risk falls within or below this risk range, asbestos is considered unlikely to pose an unacceptable risk to individuals under the given exposure conditions. A risk level of 1×10^{-5} (1 E-5) represents a probability of one in 100,000 that an individual could die from contracting mesothelioma or lung cancer from exposure to asbestos under a defined set of exposure assumptions.

6.4.4 Risk Assessment Results

The calculation of theoretical upper-bound ILCRs and non-cancer health effects are presented by receptor in Tables 22A, B, C through 25A, B, C and are discussed in Section 8.0. These tables present the theoretical upper-bound ILCRs and non-cancer health effects calculations for residential, construction worker, commercial (indoor) worker, and maintenance (outdoor) worker receptors. The risk of death from lung cancer or mesothelioma as a consequence of exposure to asbestos on a Site-wide basis is presented in Table 26. All calculation spreadsheets are provided in Appendix H (included on the report CD in Appendix B).

7.0 UNCERTAINTY ANALYSIS

Risk estimates are values that have uncertainties associated with them. These uncertainties, which arise at every step of a risk assessment, are evaluated to provide an indication of the uncertainty associated with a risk estimate. Risk assessments are not intended to estimate the true risk to a receptor associated with exposure to chemicals in the environment. In fact, estimating the true risk is impossible because of the variability in the exposed or potentially exposed populations. There are always gaps in knowledge because a true exposure for every individual cannot be measured. Therefore, risk assessment is a means of estimating the probability that an adverse health effect (*e.g.*, cancer, impaired reproduction) will occur in a receptor in order to assist in decision making regarding the protection of human health. The use of conservative values for a majority of the assumptions in risk assessments helps guard against the underestimation of risks.

Risk estimates are calculated by combining Site data, assumptions about individual receptor's exposures to impacted media, and toxicity data. The uncertainties in this HHRA can be grouped into four main categories that correspond to these steps:

- Uncertainties in environmental sampling and analysis
- Uncertainties in fate and transport modeling (discussed in Section 9)
- Uncertainties in assumptions concerning exposure scenarios
- Uncertainties in toxicity data and dose-response extrapolations

General uncertainties associated with the HHRA for the Site are summarized in Table 27. In Table 27, "Low," "Moderate," and "High" are qualitative indicators as to whether the source of uncertainty will likely have a small, medium, or large effect on the risk calculations, respectively. In general, the scenarios and parameters evaluated and used in this HHRA are considered conservative based on how the Site will be developed. This is a large source of potential conservative bias in this HHRA. Additional discussion on the uncertainties associated with the HHRA is provided below.

7.1 ENVIRONMENTAL SAMPLING

The HHRA for the Site was based on the sampling results obtained from investigations conducted in 2008 and 2009. Errors in sampling results can arise from the field sampling, laboratory analyses, and data analyses.

The environmental sampling at the Site is one source of uncertainty in the evaluation. However, the number of sampling locations and events is large, widespread and spatially distributed, with consistent analytical results (*i.e.*, no hot spots), and sampling was performed using approved procedures; therefore, the sampling and analysis data is sufficient to characterize the impacts and the associated potential risks.

Because of the surface soil removal for certain chemicals, the new surface layer of the Site could have different chemical concentrations than those that were measured prior to soil removal. Because only the trigger analytes were re-analyzed for in the post-scrape samples, the original measured surface soil data at the Site for all other chemicals was retained for further evaluation. However, it is reasonable to assume that the concentrations are now lower for some chemicals (*e.g.*, metals), because of the removal of some soil.

The laboratory data are another potential source of uncertainty. The types of analyses were chosen based on historical knowledge of the Site and BMI Common Areas. The data validation and data usability evaluations provided documentation that the HHRA database is adequate to support HHRA conclusions (see Section 4 and Appendix E). Based on the data validation and data usability, the risk estimates are likely to be overestimated rather than underestimated.

Uncertainties are also introduced into the risk assessment by assumptions that are made regarding the grading plan. As described in Section 3.1, the grading plan affects the interpretation of the data in terms of assigning samples to the surface or the subsurface. This was done to avoid the situation in which current surface samples might not be included in the evaluation of exposures to future surface soils. The data were subdivided by depth intervals as described in Section 3.1, and the maximum of the UCLs for the five subsets of data was used as the exposure point concentration. There is some uncertainty in the choice of subsetting on the concentrations of interest, and there is a potential small overestimation of risk by choosing the maximum of the five UCLs as the exposure point concentration. The effects are likely to be small given the data, since there is not much variation in the different UCLs. In addition, UCLs for cobalt in pond PUC-2 and vanadium in pond PUA-3 did not consider the five different subdivisions, rather a single UCLs using all data were calculated for each. This was considered adequate and representative given the limited aerial extent of these two areas; however, there may be an underestimation of risk by not considering these different subdivisions.

7.2 ESTIMATES OF EXPOSURE

The selection of exposure pathways is a process, often based on best professional judgment, which attempts to identify the most probable potentially harmful exposure scenarios. In a risk assessment it is possible that risks are not calculated for all of the exposure pathways that may occur, possibly causing some underestimation of risk.

7.2.1 Aggregation of Exposure Areas

For the residential scenario that is evaluated, default exposure areas are 1/8th acre in size. However, sampling has not been performed at the frequency of guaranteeing at least one sample per exposure area. Instead, sampling has been performed at the scale of approximately once every three acres. This is considered sufficient if the concentration distribution for COPCs appears similar across the Site. To the extent that this assumption is not valid the risk assessment might underestimate risks. However, considering the remediation activities that have been performed, and the identification at Mohawk of two sub-areas that exhibit different concentrations for one COPC each – in Ponds PUC-2 (cobalt) and PUA-3 (vanadium) – so that three exposure areas have been evaluated, the risk estimates are considered reasonable from this perspective and unlikely to have resulted in significant underestimation of risk.

7.2.2 Types of Exposures Examined

In an evaluation, risks are sometimes not calculated for all of the exposure pathways that may occur, possibly causing some underestimation of risk. However, in this case, all principal potential exposure pathways were evaluated. In this assessment, risks were estimated for future on-site residents, and indoor and outdoor worker receptors. Risks for the most likely routes of exposure to these receptors were estimated. For example, risks to residents were estimated for soil ingestion, skin contact with soil, inhalation of outdoor air (including dust generation), inhalation of indoor air, and ingestion of homegrown produce. Although it is possible that other exposure routes could exist (for example, downwind off-site residents), these exposures are expected to be lower than the risks associated with the pathways considered.

7.2.3 Intake Assumptions Used

The risks calculated depend largely on the assumptions used to calculate the rate of COPC intake. For this assessment, standard default values developed by USEPA are used for reasonable maximum exposures frequency and exposure duration for all receptors. These estimates are conservative values, and the possibility that they underestimate the risk is low. The uncertainties associated with particular parameters used in this risk assessment are described below.

The amount of COPCs the body absorbs may be different from the amount of a COPC contacted. In this HHRA absorption of ingested and inhaled COPCs is conservatively assumed to be 100 percent.

Current USEPA guidance (USEPA 2004e) states that "There are no default dermal absorption values presented for volatile organic compounds nor inorganic classes of compounds. The rationale for this is that in the considered soil exposure scenarios, volatile organic compounds would tend to be volatilized from the soil on skin and should be accounted for via inhalation routes in the combined exposure pathway analysis. For inorganics, the speciation of the compound is critical to the dermal absorption and there are too little data to extrapolate a reasonable default value." While USEPA guidance does not specifically state that this pathway should be dismissed, consistent with the approach utilized in current USEPA guidance, the risk estimates in this HHRA do not include a dermal absorption value for VOCs or inorganics (unless a specific value has been identified). Thus, the risks presented in this assessment could be underestimated as a result.

While there have been numerous studies in recent years detailing the presence of perchlorate in produce, the homegrown exposure pathway was not evaluated for perchlorate in the HHRA. BRC has not been able to identify an appropriate soil-to-plant uptake factor for this pathway. The studies predominately focus on water-to-plant uptake. Dr. W. Andrew Jackson at Texas Tech University has been studying perchlorate plant uptake and does not believe that the soil-to-plant pathway for a garden scenario is realistic for perchlorate (Jackson 2010). Perchlorate is extremely soluble and in surface soil would rapidly be flushed away due to application of irrigation water (Jackson 2010). In addition, laboratory experiments have demonstrated that perchlorate may be reduced to chloride in some plants (ATSDR 2008b). Also, concentrations of perchlorate in soils at this site are quite low relative to risk levels of concern, so the contribution of perchlorate to risk is quite small. Adding the soil-to-plant component is unlikely to add significantly to the risk. Consequently, the effect on the risk assessment of excluding perchlorate from the soil-to-plant pathway is likely to be small.

Soil preparation for a backyard garden is not accounted for in the HHRA and would result in reduced soil concentrations. Las Vegas area soils are "*…alkaline, clayish, caliche or hard and salty*" (Mills 2000). In addition, "*…soils are lacking organic matter and nutrients*" (Mills 2000). Therefore, residential gardening cannot occur in Site soils in its existing condition. For non-native vegetation to grow, soil amendments must be added. Recommended soil preparations for the area include thoroughly blending equal amounts of organic matter with the soil as well as the addition of other soil amendments (*e.g.*, fertilizers).

The construction activity dust emissions did not take into account dust control measures which would reduce the amount of dust generated to below those levels used in the HHRA. The Clark County Department of Air Quality and Environmental Management has dust control permitting requirements, and an inhalable particulate matter action level of 50 $\mu g/m^3$. The construction activity dust emissions predicted and used in the HHRA exceeded this level. Therefore, dust suppression activities would need to be implemented, thus reducing dust levels and exposures.

The dispersion factor for the construction worker is not adjusted to account for soil intrusion activities. Because these activities may cause increased air concentrations than that evaluated, risks to VOCs in soil may be underestimated for this receptor. However, VOCs are primarily associated with groundwater, this potential underestimation is considered low.

7.3 TOXICITY ASSESSMENT

The availability and quality of toxicological data is another source of uncertainty in the risk assessment. Uncertainties associated with animal and human studies may have influenced the toxicity criteria. Carcinogenic criteria are classified according to the amount of evidence available that suggests human carcinogenicity. In the establishment of the non-carcinogenic criteria, conservative safety factors, known as uncertainty and modifying factors, are used.

7.3.1 COPCs Lacking Toxicological Data

Toxicity criteria have not been established for some of the chemicals detected at the Site. These chemicals were not quantitatively evaluated in the HHRA. For example, niobium is a COPC for which no USEPA toxicity criteria have been established. The health effects and levels of concern for niobium in soil are not known. While not including niobium may have resulted in a low degree of underestimation of quantitative Site risk estimates, the available toxicological information suggests that this underestimation will not likely affect the decisions made relative to Site risks.

Because of the inconclusive nature of TICs as potentially site-related chemicals, non-cancer surrogate toxicity criteria were not applied. Non-cancer surrogate toxicity criteria were not applied to the inorganic chemicals because of the complexity of ion and metal toxicity. A quantitative estimation of risk was not conducted for these COPCs. Thus, the risks presented in this assessment could be underestimated as a result.

For the surface flux results, there are a few organic chemicals (*e.g.*, n-heptane, 2-hexanone, cymene) detected that do not have toxicity criteria available. Surrogate toxicity criteria were not applied for these chemicals. Therefore, a quantitative estimation of risk was not conducted for these chemicals. Thus, the risks presented in this assessment could be underestimated as a result.

7.3.2 Uncertainties in Animal and Human Studies

Extrapolation of toxicological data from animal tests is one of the largest sources of uncertainty in a risk assessment. There may be important, but unidentified, differences in uptake, metabolism, and distribution of chemicals in the body between the test species and humans. For the most part, these uncertainties are addressed through use of conservative assumptions in establishing values for RfDs, RfCs, CSFs, and IURs, which results in the likelihood that the risk is overstated.

Typically, animals are administered high doses (*e.g.*, maximum tolerated dose) of a chemical in a standard diet or in air. Humans are generally exposed to much lower doses in the environment, which may affect the toxicity of the chemical. In these studies, animals, often laboratory rodents, are exposed daily to the chemical agent for various periods of time up to their 2-year lifetimes. Humans have an average 70-year lifetime and may be exposed either intermittently or regularly for an exposure period ranging from months to a full lifetime. Because of these differences, it is not surprising that extrapolation error is a large source of uncertainty in a risk assessment.

7.3.3 Non-Carcinogenic Toxicity Criteria

In the establishment of the non-carcinogenic criteria, conservative safety factors, known as uncertainty factors, are used. Most of the chronic non-carcinogenic toxicity criteria that were located in the IRIS database have uncertainty factors of 1,000. This means that the dose corresponding to a toxicological effect level (*e.g.*, LOAEL) is divided by 1,000 to establish a safe, or "reference", dose. The purpose of the uncertainty factor is to account for the extrapolation of toxicity data from animals to humans and to insure the protection of sensitive individuals. There are multiple toxicity criteria listed in IRIS and HEAST for vanadium and compounds. The oral RfD listed for vanadium in the NDEP BCL table, which cites IRIS as the source, was used in this HHRA.

7.3.4 Sub-Chronic Non-Carcinogenic Toxicity Criteria

Construction worker exposures are evaluated for an exposure duration of one-year, which is more representative of a sub-chronic exposure rather than a chronic exposure. As such, where available, sub-chronic RfDs were used to characterize non-cancer effects for the construction worker. However, for many COPCs a sub-chronic RfD was not available and the chronic RfD was used. This likely presented an overestimation of non-cancer health risks to the construction worker.

7.3.5 Carcinogenic Toxicity Criteria

Uncertainty due to extrapolation of toxicological data for potential carcinogens tested in animals to human response is commonly the case for potentially carcinogenic chemicals. USEPA frequently uses the linearized multi-stage model, or other non-threshold low dose extrapolation models, to extrapolate the toxicological data to estimate human response. These low dose extrapolation models assume that there is no threshold for carcinogenic substances; that is, exposure to even one molecule, fiber, or picocuries of a carcinogen is sufficient to cause cancer. This is a highly conservative assumption because the body has several mechanisms to protect against cancer.

The use of the linearized multi-stage model to extrapolate is a well-recognized source of significant uncertainty in the development of carcinogenic toxicity criteria and, subsequently, theoretical carcinogenic risk estimates. At high levels of exposure, there may indeed be a risk of cancer regardless of whether the effect occurs via a threshold mechanism or not. An animal bioassay can't determine what happens at low levels of exposure, however, which are generally typical of human exposure levels.

At low levels of exposure, the probability of cancer cannot be measured but must be extrapolated from higher dosages. To do this, animals are typically exposed to carcinogens at levels that are orders of magnitude greater than those likely to be encountered by humans in the environment. It would be difficult, if not impossible, to perform animal experiments with a large enough number of animals to directly estimate the level of risk at the low exposure levels typically encountered by humans. Thus, to estimate the risk to humans exposed at low levels, dose-response data derived from animals given high dosages are extrapolated downward using mathematical models such as the linearized multi-stage model, which assumes that there is no threshold of response. The dose-response curve generated by the model is known as the maximum likelihood estimate. The slope of the 95 percent lower confidence interval (*i.e.*, upper-bound limit) curve, which is a function of the variability in the input animal data, is taken as the CSF. CSFs are then used directly in cancer risk assessment.

The federal government, including USEPA itself, has acknowledged the limitations of the high-to-low dose extrapolation models, particularly the linearized multi-stage model (USEPA 1991c). In fact, this aspect of cancer risk assessment has been criticized by many scientists (including regulatory scientists) in recent years. USEPA has recently released revised cancer risk assessment guidelines (USEPA 2005c).

Even for genotoxic (*i.e.*, non-threshold) substances, there are two major sources of bias embedded in the linearized multi-stage model: (1) its inherent conservatism at low doses and (2) the routine use of the linearized form in which the 95 percent upper confidence interval is used instead of the unbiased maximum likelihood estimate. The inherent conservatism at low doses is due in part to the fact that the linearized multi-stage model ignores all of the numerous biological factors that argue against a linear dose- response relationship for genotoxic effects (*e.g.*, DNA repair, immunosurveillance, toxicokinetic factors).

Several other factors inherent in the linearized multi-stage model result in overestimated carcinogenic potency: (1) any exaggerations in the extrapolation that can be produced by some high dose responses (if they occur) are generally neglected, (2) upper confidence limits on the actual response observed in the animal study are used rather than the actual response, resulting in upper-bound low dose extrapolations, which can greatly overestimate risk, and (3) non-genotoxic chemicals (*i.e.*, threshold carcinogens) are modeled in the same manner as highly genotoxic chemicals.

7.3.6 Uncertainties with the Asbestos Risk Assessment

For the risk assessment, asbestos concentrations were presented two ways, as a best estimate and upper bound based upon the UCL of the mean of the Poisson distribution. No detections of amphibole fibers were observed. However, when zero fibers are observed, the UCL of the mean is approximately three fibers, and this value is used as the basis for the reasonable maximum exposure point concentration for the asbestos risk assessment. Considering the remediation activities that have been performed, and the observation of zero amphibole fibers, this approach might result in overestimation of amphibole related risks.

Asbestos risk estimates are highly dependent on the number of samples to increase or decrease the pooled analytical sensitivity. That is, a larger number of non-detect samples with similar individual analytical sensitivity results in a lower pooled analytical sensitivity and subsequently a lower estimated asbestos related risk. Whereas, a smaller number of non-detect samples results in a higher asbestos related risk. Uncertainty is, thus, reduced as more samples are collected.

7.4 CUMULATIVE EFFECT OF UNCERTAINTIES

Uncertainties from different sources are compounded in the HHRA. For example, if a person's daily intake rate for a chemical is compared to an RfD to determine potential health risks, the uncertainties in the concentration measurements, exposure assumptions, and toxicities are all expressed in the result. Because the exposure assumptions and toxicity criteria are considered conservative, the risk estimates calculated in this HHRA are likely to overestimate rather than underestimate potential risks.

8.0 SUMMARY OF RESULTS

This HHRA has evaluated potential risks to human health associated with chemicals and asbestos detected in soil at the Mohawk Sub-Area located within the BMI Common Areas in Clark County, Nevada. The calculation of chemical theoretical upper-bound ILCRs and non-cancer health effects are presented in Appendix H (included on the report CD in Appendix B). Asbestos risk calculations are also presented in Appendix H (included on the report CD in Appendix B). All calculation spreadsheets for this HHRA are included in Appendix H (included on the report CD in Appendix B).

The risk estimates are based on reasonable maximum exposure scenarios, which results in estimates of the potential reasonable maximum, or high-end, risks associated with the Site. The calculated chemical theoretical upper-bound ILCRs and HIs are presented in Tables 22A, B, C through 25A, B, C for residential, construction worker, commercial (indoor) worker, and maintenance (outdoor) worker receptors, respectively. Asbestos estimated risk of death from lung cancer or mesothelioma on a Site-wide basis are presented in Table 26.

8.1 RESIDENTS

Exposure Area – PUC-2

For chemical exposures, the total cumulative non-cancer HI for future residential receptors at PUC-2 is 1.4 (including the surface flux air risk estimates[29]), which is above the target HI of 1.0 (see Table 22A), driven by cobalt and vanadium soil exposures. Because the total cumulative HI exceeds 1.0, the potential for adverse health effects was further evaluated by considering the target organs upon which each chemical could have an adverse effect. Target organ-specific HIs are also shown in Table 22A. The target organ-specific HIs have been summed for all relevant COPCs (Note: target organs for each COPC are identified in the calculation spreadsheets included in Appendix H [included on the report CD in Appendix B] and in Table 21). The maximum target organ-specific HI is 0.95 (thyroid) driven by cobalt soil exposures (see Table 22A). None of the target organ non-cancer HIs are above 1.0.

[29] The minimum and maximum surface flux risk estimates are summed with the soil risk estimates to provide a range of cumulative risks. The minimum and maximum surface flux risk estimates are provided in Appendix H (included on the report CD in Appendix B) and the receptor-specific chemical risk summary tables. The risks shown are cumulative risks using the maximum surface flux risk estimate.

The maximum theoretical upper-bound ILCR for future residential receptors at PUC-2 is 1×10^{-6} (including the surface flux air risk estimates see Table 22A). The range of ILCRs is 2×10^{-7} to 1×10^{-6}. The ILCR is near the low end of the risk goal of 1×10^{-6} and is driven by the indoor air ILCR for flux sample MC1-J12 due to chloroform, carbon tetrachloride, and 1,4-dioxane.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for future residential receptors at PUA-3 is 1.0 (including the surface flux air risk estimates) (see Table 22B) driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0, however, it should be noted that the maximum target organ HI is 0.93 (blood).

The maximum theoretical upper-bound ILCR for future residential receptors at PUA-3 is 1×10^{-6} (including the surface flux air risk estimates see Table 22B). The range of ILCRs is 1×10^{-7} to 1×10^{-6}. The ILCR is near the low end of the risk goal of 1×10^{-6} and is driven by the indoor air ILCR for flux sample MC1-J12 due to chloroform, carbon tetrachloride, and 1,4-dioxane.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for future residential receptors at the Site is 0.46 (including the surface flux air risk estimates) (see Table 22C) driven by vanadium and thallium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for future residential receptors at the Site is 1×10^{-6} (including the surface flux air risk estimates see Table 22C). The range of ILCRs is 1×10^{-7} to 1×10^{-6}. The ILCR is near the low end of the risk goal of 1×10^{-6} and is driven by the indoor air ILCR for flux sample MC1-J12 due to chloroform, carbon tetrachloride, and 1,4-dioxane.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to future residential receptors were below 1×10^{-6}. For residential receptors, the best estimate and upper bound concentrations for chrysotile fibers are 1×10^{-8} and 2×10^{-8}; and zero and 2×10^{-7} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}. The upper bound estimated risk of death from lung cancer or mesothelioma is estimated based on the 95 percent UCL of the count of the number of fibers detected, assuming a Poisson distribution for the count. Note that when the observed count is zero, the 95 percent UCL is approximately three fibers. Therefore, the high-end risk estimate for deaths from lung cancer or mesothelioma is a conservative value since it is based on a 95 percent UCL of the Poisson distribution of three long amphibole structures although no long amphibole structures have been detected at the Site.

8.2 CONSTRUCTION WORKERS

Exposure Area – PUC-2

For chemical exposures, the total cumulative non-cancer HI for construction worker receptors at PUC-2 is 0.48 (including the surface flux air risk estimates) (see Table 23A), driven by cobalt and vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for construction worker receptors at PUC-2 is 2×10^{-7} (including the surface flux air risk estimates see Table 23A) and is driven by cobalt soil exposures. The flux ILCRs range from 1×10^{-10} to 3×10^{-9} driven by carbon tetrachloride and chloroform at flux sample location of MC1-J12. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for construction worker receptors at PUA-3 is 0.25 (including the surface flux air risk estimates) (see Table 23B), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for construction worker receptors at PUA-3 is 2×10^{-8} (including the surface flux air risk estimates see Table 23B) and is driven by hexavalent chromium dust exposures. The flux ILCRs range from 1×10^{-10} to 3×10^{-9} driven by carbon tetrachloride and chloroform at flux sample location of MC1-J12. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for construction worker receptors at the Site is 0.12 (including the surface flux air risk estimates) (see Table 23C), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for construction worker receptors at the Site is 2×10^{-8} (including the surface flux air risk estimates see Table 23C) and is driven by hexavalent chromium dust exposures. The flux ILCRs range from 1×10^{-10} to 3×10^{-9} driven by carbon tetrachloride and chloroform at flux sample location of MC1-J12. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to construction workers were below 1×10^{-6}. For construction worker receptors, the best estimate and upper bound concentrations for chrysotile fibers are both 2×10^{-8}; and zero and 3×10^{-7} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}.

8.3 COMMERCIAL (INDOOR) WORKERS

Exposure Area – PUC-2

For chemical exposures, the total cumulative non-cancer HI for commercial (indoor) worker receptors at PUC-2 is 0.04 (including the surface flux air risk estimates) (see Table 24A), driven by cobalt soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (indoor) worker receptors at PUC-2 is 1×10^{-7} (including the surface flux air risk estimates see Table 24A). The range of ILCRs is 1×10^{-8} to 1×10^{-7} and is driven by the indoor air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for commercial (indoor) worker receptors at PUA-3 is 0.035 (including the surface flux air risk estimates) (see Table 24B), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (indoor) worker receptors at PUA-3 is 1×10^{-7} (including the surface flux air risk estimates see Table 24B) and is driven by the indoor air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for commercial (indoor) worker receptors at the Site is 0.015 (including the surface flux air risk estimates) (see Table 24C), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (indoor) worker receptors at the Site is 1×10^{-7} (including the surface flux air risk estimates see Table 24C) and ~~and~~ is driven by the indoor air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to commercial (indoor) workers were below 1×10^{-6}. For commercial (indoor) worker receptors, the best estimate and upper bound concentrations for chrysotile fibers are 2×10^{-9} and 3×10^{-9}; and zero and 4×10^{-8} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}.

8.4 MAINTENANCE (OUTDOOR) WORKERS

Exposure Area – PUC-2

For chemical exposures, the total cumulative non-cancer HI for commercial (outdoor) worker receptors at PUC-2 is 0.07 (including the surface flux air risk estimates) (see Table 25A), driven by cobalt and vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (outdoor) worker receptors at PUC-2 is 1×10^{-7} (including the surface flux air risk estimates see Table 25A). The range of ILCRs is 6×10^{-8} to 1×10^{-7} and is driven by the ambient air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The soil ILCR is driven by formaldehyde ambient air exposures. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – PUA-3

For chemical exposures, the total cumulative non-cancer HI for commercial (outdoor) worker receptors at PUA-3 is 0.062 (including the surface flux air risk estimates) (see Table 25B), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (outdoor) worker receptors at PUA-3 is 1×10^{-7} (including the surface flux air risk estimates see Table 25B$) and is driven by the ambient air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The soil ILCR is driven by formaldehyde ambient air exposures. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

Exposure Area – Site-Wide

For chemical exposures, the total cumulative non-cancer HI for commercial (outdoor) worker receptors at the Site is 0.026 (including the surface flux air risk estimates) (see Table 25C), driven by vanadium soil exposures. The HI does not exceed the target HI of 1.0.

The maximum theoretical upper-bound ILCR for commercial (outdoor) worker receptors at the Site is 1×10^{-7} (including the surface flux air risk estimates see Table 25C) and ~~and~~ is driven by the ambient air ILCR for flux sample MC1-J12 due to carbon tetrachloride, chloroform, and 1,4-dioxane. The soil ILCR is driven by formaldehyde ambient air exposures. The ILCRs are all below the low end of the risk goal of 1×10^{-6}.

The estimated risks for death from lung cancer or mesothelioma for asbestos exposures to maintenance (outdoor) workers were below 1×10^{-6}. For maintenance (outdoor) worker receptors, the best estimate and upper bound concentrations for chrysotile fibers range from 5×10^{-9} to 8×10^{-9} and zero and 9×10^{-8} for amphibole fibers (Table 26). These estimated risks are below the low end of the risk goal of 1×10^{-6}.

9.0 POTENTIAL IMPACTS TO GROUNDWATER

This Section presents the evaluation of the potential impacts to groundwater of residual chemicals in soil and considering the future land use of the Site. This evaluation has been conducted using both the VLEACH and SESOIL vertical unsaturated zone migration models and site-specific analytical results of soil samples collected from the Site. The SESOIL modeling was conducted for all non-volatile COPCs identified in the HHRA.[30] The SESOIL modeling was selected because it can provide a consistent framework for evaluating potential groundwater impacts for the non-volatile COPCs. However, SESOIL does not simulate downward vapor-phase diffusion. Therefore, VLEACH was used for the volatile COPCs identified in the HHRA in the soil matrix. The evaluation was conducted using the SESOIL and VLEACH models as distributed by Waterloo Hydrogeologic, Inc. in the model software package WHI UnSat Suite Plus 2.2.03.

9.1 SESOIL MODEL

SESOIL is designed for long-term environmental hydrologic, sediment, and pollutant fate simulations. The model is structured around three cycles: (1) the hydrologic cycle, which takes into account rainfall, infiltration, soil moisture, surface runoff, exfiltration, evapotranspiration, groundwater discharge, and capillary rise; (2) the sediment cycle, which is currently not available in the model; and (3) the pollutant cycle, which takes into account advection, diffusion, volatilization, adsorption/desorption, chemical degradation/decay, biological transformation and uptake, hydrolysis, photolysis, oxidation, and cation exchange. A complete description of the model equations and assumptions is provided in *SESOIL A Seasonal Soil Compartment Model* (Bonazountas and Wagner 1984). Extensive modifications to the original version of SESOIL are described in Hetrick *et al*. (1989). The most current version of SESOIL incorporates these modifications.

Because the SESOIL model ignores a number of possible attenuating factors, it is likely that it over predicts the actual chemical migration rate in the vadose zone. However, because of its simplicity, this approach provides a simple method to estimate the likely maximum rate at which chemicals would be transported in the vadose zone down to groundwater. All input parameters

[30] Although the *BRC Closure Plan* identifies the use of SESOIL for inorganic compounds, PESTAN for pesticides, and VLEACH for other organic compounds; subsequent information indicates that PESTAN is inappropriate for this type of modeling. Therefore, because SESOIL is an appropriate model for inorganics, pesticides, and other organic compounds, for consistency, SESOIL was used for all non-VOCs at the Site.

used in the model simulations are presented in Appendix K~~J~~ (included on the report CD in Appendix B).

Inputs for SESOIL are broken out into the following elements:

- Climate Data (Table K~~J~~-1): consists of nine monthly climatological inputs. Data for this file are accessed from the climatic dataset incorporated into WHI UnSat Suite Plus. This dataset contains monthly averages for over 200 first order weather stations throughout the U.S.
- Soil Data (Table K~~J~~-2): consists of several parameters that describe the soil properties for the Site.
- Chemical Data (Table K~~J~~-3): consists of several parameters used to describe the properties of the COPC.
- Application Data (Table K~~J~~-4): consists of a number of inputs that describe soil layer specific data and the chemical application load.
- Initial Concentrations (Table K~~J~~-5): consists of the COPC concentrations used at time zero.

Data for Las Vegas, the closest first order weather station to the Site with similar meteorological conditions, are considered representative of the Site and input into this file. Input parameters for this data file include temperature, cloud cover, relative humidity, precipitation, and albedo, which relates to the fraction of light or electromagnetic radiation reflected by a surface. Evapotranspiration is calculated by the model based on temperature, cloud cover, relative humidity, and albedo (precipitation is not included as part of this calculation). Greater evapotranspiration inhibits infiltration, leading to slower downward migration of the chemicals. The climate dataset used is shown in Table K~~J~~-1, in Appendix K.~~J.~~

The soil model input data consists of several parameters which describe soil properties. Average values of measured site-specific data of soil porosity, density and organic carbon content were used in the model (Table K~~J~~-2, in Appendix K~~J~~; see also the Site dataset included on the report CD in Appendix B). For parameters without measured Site data (cation exchange coefficient, Freundlich exponent), default inputs consistent with a sand soil type were used, with the exception of soil disconnectedness index. The default sand soil disconnectedness index of 3.7 was modified to 5.59 such that the overall recharge rate to groundwater predicted by the model would be consistent with the default, pre-development recharge rate predicted in the groundwater flow model developed for the Eastside property (DBS&A 2009). A recharge rate of 0.08 inches per year (for undeveloped areas) was estimated as part of that model.

The chemical model input data consists of several parameters used to describe the properties of the chemical of concern. USEPA Soil Screening Guidance (2002b) default chemical properties were used where available. NDEP's BCL guidance (NDEP 2010a) was a secondary source for these parameters. Chemical parameters used in the evaluation are presented in Table KJ-3, in Appendix KJ.

The application model input data consists of a number of inputs that describe infiltration-layer-specific data and the chemical application load. The model was run without application load. For purposes of this evaluation, the soil column was divided into four infiltration layers (Table KJ-4, in Appendix KJ). The designation of each layer and the width of each infiltration layer were:

Designation	Thickness (feet)	Boundary Depths (feet)
Infiltration Layer One	10	0 – 10
Infiltration Layer Two	10	10 – 20
Infiltration Layer Three	10	20 – 30
Infiltration Layer Four	15	30-45

For the purposes of inputting the initial soil chemical concentrations, the first three layers were divided into ten individual one foot thick sub-layers and the last layer was divided into ten individual one and half foot thick sub-layers. The initial soil chemical concentration in each sub-layer for the simulation was the maximum detected concentration in each soil depth horizon corresponding to each sub-layer (Table KJ-5, in Appendix KJ).

The depth to groundwater has been observed to vary from 45 to 70 feet bgs in recent (July-August 2009) sampling. The shallowest depth to groundwater in the vicinity of the Site was 49 feet bgs. Therefore, groundwater was conservatively assumed to be at a depth of 45 feet bgs (given known depths to groundwater for the Site). The SESOIL model is one dimensional, that is, it is limited to calculations and predictions within the soil column defined by the input parameters.

9.2 VLEACH MODEL

VLEACH is a USEPA one-dimensional finite-difference vadose zone leaching model that describes the movement of an organic contaminant within and between three phases: (1) as a solute dissolved in water, (2) as a gas in the vapor phase, and (3) as an adsorbed compound in the solid phase. Similar to SESOIL, the VLEACH model ignores a number of possible attenuating factors. The VLEACH model is based on several assumptions that typically result in conservative evaluations of migration potential. These assumptions include:

- The model simulates one-directional flow only;
- Liquid phase dispersion is neglected. Hence, the migration of the chemical will be simulated as a plug. This assumption causes higher dissolved concentrations and lower travel time predictions than would occur in reality, and;
- Instantaneous equilibrium between phases is assumed within each cell. After the mass is exchanged between the cells, the total mass in each cell is recalculated and re-equilibrated between the different phases and applied to the full depth of each cell. Thus assuming that some portion of the mass transferred into the top of one cell instantaneously reaches the bottom of the cell.

Therefore, it likely over predicts the actual chemical migration rate in the vadose zone. VLEACH requires the following soil input parameters: bulk density; effective porosity, moisture content and organic carbon content. All soil and chemical input parameters used in the SESOIL model were used in the VLEACH model. For soil moisture, which is an input for VLEACH but is calculated by SESOIL, the soil moisture calculated by SESOIL for each of the recharge scenarios was utilized in VLEACH to maintain consistency between the models. Additional model input parameters specific to the VLEACH model are presented in Table K~~J~~-6, in Appendix K~~J~~.

9.3 POTENTIAL IMPACTS TO CHEMICAL MIGRATION MECHANISMS FOLLOWING REDEVELOPMENT

Migration of chemicals in soil to groundwater may be affected following redevelopment. Future redevelopment will likely result in increased surface water infiltration due to sources such as buried water lines, sewer lines, irrigation lines and/or over-watering of parks and lawns. These sources have the potential to enhance the migration to groundwater of the post-remediation levels of chemicals remaining in soils. Subsequently, three surface water infiltration scenarios were evaluated.

The first scenario evaluates recharge relative to baseline, pre-development conditions. This scenario assesses the potential for surface precipitation on unimproved ground surface (titled a "baseline" scenario), to influence migration of chemicals to groundwater. This is consistent with recharge rate predicted in the groundwater flow model developed for the Eastside property (DBS&A 2009). A recharge rate of 0.08 inches per year (for undeveloped areas) was estimated as part of that model.[31]

The second scenario evaluates recharge relative to normal post-development conditions. This scenario assesses the potential for surface water recharge in improved areas associated with commercial and residential construction, to influence migration of chemicals to groundwater. This is consistent with recharge rate predicted in the groundwater flow model developed for the Eastside property (DBS&A 2009). A recharge rate of 0.57 inches per year (for undeveloped areas) was estimated as part of that model (titled the "normal" scenario).

Lastly, a scenario of post-development enhanced recharge was also evaluated as part of the groundwater flow model developed for the Eastside property (DBS&A 2009), and incorporated into the vadose zone modeling. This scenario evaluates surface water recharge associated with overwatering of open space. A recharge rate of 8.672 inches per year was estimated as part of that model (titled the "enhanced" scenario).

Therefore, additional modeling runs were conducted using the SESOIL and VLEACH models to account for the potential increased recharge to groundwater for each of the two post-development scenarios. For SESOIL, the only modification was to increase the monthly rainfall to 1.861522 cm/month for the normal post development scenario, and 6.015.42 cm/month for the enhanced recharge scenario. While the input of additional applied precipitation is more than the amount of post-development modeled water infiltration (DBS&A 2009), this is necessary to offset the effect of model estimated evapotranspiration (because the model only applies infiltration as a surface rather than as a subsurface source). The values of 1.861522 and 6.015.42 cm/month are values selected by iterative model runs conducted to identify a precipitation rate that approximates and results in the desired recharge(s) to groundwater. The modified rainfall totals used for this modeling run are provided in Table KJ-1, in Appendix KJ.

[31] Note that the scenario has been modeled for only a subset of the COPCs (those considered the most likely to impact groundwater). Based on discussions with NDEP and its consultants, this is considered sufficient for the Site.

9.4 MODEL UNCERTAINTY

Use of site-specific values, where available, is recommended. A number of limitations exist for the models. These include:

- Data gaps/ uncertainties in site-specific properties
- Omission of certain chemical and physical processes
- Lack of an appropriate model validation opportunity

Data gaps, uncertain and/or variable input values that may exist for the Site include:

- Site specific meteorological data (uncertain/variable)
- Soil input parameter measurements for the different soil layers incorporated in the model (*e.g.*, intrinsic permeability, organic carbon content [uncertain/variable])
- Site specific chemical data (*e.g.*, degradation rates [gap])

Any interactions that may occur among the different chemicals present in the soil which may influence the migration and/or fate of the various chemicals is not taken into account in the model (*e.g.*, chemical mobility may decrease or increase in the presence of other solvent-related chemical components). Reasonable effort has been made to obtain results that provide reasonable estimates of actual Site conditions. Uncertain input values were selected based on available scientific and regulatory information to err on the conservative side.

9.5 RESULTS

SESOIL and VLEACH results are provided in Table KJ-7 in Appendix KJ, and are summarized in Table 28. The results include maximum depth of infiltration, the maximum pore water concentrations in the vadose zone at the groundwater interface and the maximum measured groundwater concentration (observed during the latest groundwater monitoring event; July-August 2009). The SESOIL and VLEACH outputs provided electronically in Appendix KJ (included on the report CD in Appendix B) contain the results of the evaluation for each of the COPCs and scenarios. Under all recharge scenarios none of the metal or organochlorine pesticide COPCs, nor fluoride are expected to reach groundwater within 100 years.

For organics, 1,2,4-trimethylbenzene, acetone, acetaldehyde, benzene, dichloromethane, and formaldehyde all are predicted to reach groundwater under one or more scenarios. Under the enhanced recharge scenario only, acetaldehyde results in estimated pore water concentrations at the groundwater interface that exceed its residential water BCL (NDEP 2010a). For acetaldehyde, the exceedance was by a factor of 2.5 (164 μg/L) times greater than the BCL (65.7 μg/L). However, neither acetaldehyde nor formaldehyde have been detected in shallow groundwater in the vicinity of the Site, which would be expected given the length of time since the ponds were in use, given the model results. If the model were accurately predicting levels of acetaldehyde and formaldehyde in groundwater, then observed levels would be much higher than they are. Therefore, it is likely that attenuation of acetaldehyde and formaldehyde in the soil column is occurring, which is not being accounted for by the model. As such, the model is considered overly conservative and residual levels of organic COPCs in Site soils should not pose an unacceptable risk to groundwater quality.

For inorganics, ammonia, nitrate, and perchlorate, are all predicted to reach groundwater and results in estimated pore water concentrations at the groundwater interface that exceed their residential water BCLs (NDEP 2010a) under all scenarios. For ammonia, the exceedances range by a factor of 11 (8,400 μg/L) to 27 (20,000 μg/L) times greater than the BCL (730 μg/L). For nitrate, the exceedances range by a factor of 1,250 (1,250,000 μg/L) to 2,000 (2,000,000 μg/L) times greater than the BCL (1,000 μg/L). For perchlorate, the exceedances range by a factor of 2,400 (44,000 μg/L) to 8,000 (140,000 μg/L) times greater than the BCL (18 μg/L).

Of note is that for nitrate and perchlorate, these concentrations approach or equal the COPCs solubility shortly into the simulation. Also relevant to this discussion is consideration that some constituents such as nitrate have naturally-occurring/background concentrations comparable to Site concentrations; however, only metals and radionuclides are evaluated in the background comparison analyses. Thus, it is plausible that naturally occurring concentrations of nitrate, when modeled, might also produce estimated water concentrations that exceed BCLs and measured groundwater concentrations.

In addition, ammonia, nitrate, and perchlorate the adsorption to soils is very variable and uncertain, the modeling assumed very low Kd values for these constituents to maximize the downward migration to groundwater. With such low adsorption coefficients the model also predicted such rapid mass migration to groundwater that all would hit groundwater within a few years and exceed their BCLs shortly thereafter. However, while these chemicals are detected in shallow groundwater at the Site, the concentrations are orders of magnitude less than predicted (it is also noted that use of the Summers groundwater mixing model would likely do little to affect these results).

The time since discontinued use of the ponds exceeds the timeframes for inorganic COPCs to reach groundwater at the concentrations predicted to exceed BCLs. Based upon the differences in the modeling predicted results and the observed measurements in groundwater, it is considered probable that processes not accounted for in the model are reducing/attenuating concentrations of inorganic COPCs as they migrate through the vadose zone towards groundwater. Based on the elapsed time since any Site use, the lack of observations of the evaluated chemicals in groundwater at the Site or concurrence between measured and predicted concentrations, and the reasonably mobile nature of the COPCs evaluated, these cumulative lines of evidence suggest that 1) the modeling environment utilized in this evaluation is likely to be overly conservative, and 2) there is insufficient evidence to suggest that the concentrations of organics and inorganics detected in Site soils represent a risk to groundwater quality.

10.0 DATA QUALITY ASSESSMENT

Sample size calculations were conducted for eight analytes (arsenic, total chromium, hexavalent chromium, cobalt, formaldehyde, radium-226, TCDD TEQ, and vanadium) for the Site. Rationale for the inclusion of these analytes in the sample size calculations are provided below:

- Arsenic – a chemical of primary concern for the overall project, often exceeding comparison levels;
- Total chromium – found in a few locations at unexpectedly high concentrations resulting in high sample variability;
- Hexavalent chromium – the metal (besides arsenic) with the most exceedances of background concentrations;
- Cobalt – found in a few locations at unexpectedly high concentrations resulting in high sample variability, and a primary non-cancer risk driver;
- Formaldehyde – the non-dioxins/furans/PCB congeners organic chemical with the highest number of detected results;
- Radium-226 – a chemical of primary concern for the overall project, often exceeding comparison levels, representative of radionuclides;
- TCDD TEQ – a chemical of primary concern for the overall project; and
- Vanadium – found in a few locations at unexpectedly high concentrations resulting in high sample variability, and a primary non-cancer risk driver.

The formula used here for calculation of sample size is based on a non-parametric test (the Wilcoxon signed rank test), and on simulation studies performed by Pacific Northwest National Laboratories (PNNL 2009) that formed the basis for an approximate formula that is based on the normal distribution. Essentially, the formula is the one that would be used if a normal-based test were being performed, but an adjustment is made (multiply by 1.16) to account for the intent to perform a non-parametric test. The formula is as follows:

$$n = 1.16\left[\frac{s^2}{\Delta^2}(z_{1-\alpha} + z_{1-\beta(\mu)})^2 + 0.5z_{1-\alpha}^2\right]$$

Basic Remediation COMPANY

where,

n	=	number of samples
s	=	estimated standard deviation of concentrations/fibers
Δ	=	width of the gray region (the difference between the threshold value stated in the null hypothesis and the point at which β is specified)
α	=	significance level or Type I error tolerance
β (μ)	=	Type II error tolerance; and
z	=	quantile from the standard normal distribution

For each chemical, inputs for the calculations include an estimate of the variance from the measured data, a desired significance level, and desired power of the test that must be specified at a concentration of interest (which determines the tolerable difference from the threshold value). For arsenic, the Site mean concentration exceeds its BCL based on the target cancer risk level of 10^{-6}. It is not appropriate to apply this calculation where the threshold value is less than the mean concentration. Therefore, an adjustment of the threshold value was used based on a 10^{-5} target cancer risk level. The calculations provided here cover a range of Type I and Type II error tolerances, and the point at which the Type II error is specified. Results are presented in Table 29. In Table 29, various combinations of input values are used, including: values of α of 5%, 10% and 15%; values of β of 15%, 20%, and 25%; and a gray region of width 10%, 20% and 30% of the threshold level. It is clear from Table 29 that the number of samples collected is adequate for the Site. That is, all calculated adequate sample numbers are less than those actually collected at the Site for use in the HHRA.

The ~~Although the~~ number of samples for cobalt in PUC-2 (13 samples) and vanadium in PUA-3 (eight samples) ~~may not~~ meet the minimum~~a~~ calculated adequate sample number as shown in Table 29. In addition, because of the limited aerial extent of these two separate exposure~~pond~~ areas there are greater numbers of samples per acre than for the Site-wide values. For example, considering the sub-area, there are roughly two arsenic samples per acre. In comparison, for these two separate exposure areas, there are approximately 15 to 16 cobalt and vanadium samples per acre. Thus the number of samples for cobalt and vanadium within these areas~~each~~ are considered adequate. Note also that there are 54 samples for amphibole asbestos. Amphibole was not detected in any of these samples, however, because of the number of samples collected, the asbestos related risks are all less than 1×10^{-6}. Consequently, sufficient samples have been collected to address asbestos related risks.

11.0 SUMMARY

BRC has prepared this HHRA and Closure Report for the Site. The purpose of this report is to request an NFAD by the NDEP. As noted in Section 1, NDEP acknowledges that discrete portions of the Eastside may be issued an NFAD as remedial actions are completed for select environmental media (NDEP 2006). The portion of the Eastside for which the NFAD is being requested based on this HHRA and Closure Report is shown in red on Figure 1. The legal description of the Site is provided in Appendix L.

The HHRA evaluated the potential for adverse human health impacts that may occur as a result of potential exposures to residual concentrations of chemicals in soil, groundwater, and air following remediation, and assessed whether any additional remedial actions are necessary in order to obtain an NFAD from the NDEP to allow development of the Site to proceed. The results of the risk assessment provide risk managers with an understanding of the potential human health risks associated with background conditions and additional risks associated with past Site activities.

For human health protection, BRC's goal is to remediate the Site soils such that they are suitable for unrestricted residential uses. Human health risks are represented by estimated theoretical upper-bound cancer risks and non-cancer hazards derived in accordance with standard USEPA and NDEP methods. If the carcinogenic risks or non-cancer hazards exceed USEPA acceptable levels or NDEP risk goals, then remedial action alternatives must be considered. Findings of the HHRA are intended to support the Site closure process. Major finding of this report are that:

- data collected for use in the HHRA are adequate and usable for their intended purpose;
- all relevant and reasonable exposure scenarios and pathway have been evaluated;
- residential, construction worker, commercial (indoor) worker, and maintenance (outdoor) worker cancer and non-cancer risk estimates are within or below the risk goals for the project; and
- residual levels of chemicals in soil should not pose an unacceptable risk to groundwater quality beneath the Site.

Given the discussion in Section 6.1.2, BRC believes that, following the Tiered approach from the USEPA 2002 Vapor Intrusion Guidance, it has demonstrated that there is no likelihood of adverse vapor intrusion into any indoor spaces that may be constructed in the Mohawk sub-area. Therefore, based on the results of the HHRA, and the conclusions in this report, exposures to residual levels of chemicals in soil at the Mohawk Sub-Area should not result in adverse health effects to all future receptors, or to groundwater quality beneath the Site. Therefore, BRC concludes that an NFAD for the Mohawk Sub-Area is warranted (see Appendix L for the legal description of the Site).

APPENDIX B

MOHAWK SUB-AREA INVESTIGATION DATA TABLES

(Note that all report files, including the database,
are on the report CD included in this appendix)

LIST OF TABLES (APPENDIX B)

TABLE B-1
ASBESTOS RESULTS AND ANALYTICAL SENSITIVITIES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

					Concentration Protocol Structures[1]		Number of Protocol Structures[2]			
					Chrysotile	Amphibole	Chrysotile		Amphibole	
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Analytical Sensitivity (10^6 s/gPM$_{10}$)	(10^6 s/gPM$_{10}$)	(10^6 s/gPM$_{10}$)	Total	Long	Total	Long
MC1-A01	0	N	10/8/2008	2.992	1.885 E+7	< 2.992 E+6	4	2	0	0
MC1-A01	0	FD	10/8/2008	2.994	1.887 E+7	< 2.994 E+6	2	2	0	0
MC1-A02	0	N	10/8/2008	2.983	< 2.983 E+6	< 2.983 E+6	0	0	0	0
MC1-A03	0	N	10/8/2008	2.983	1.414 E+7	< 2.983 E+6	1	1	0	0
MC1-A04	0	N	10/8/2008	2.986	< 2.986 E+6	< 2.986 E+6	0	0	0	0
MC1-A05	0	N	10/8/2008	2.978	1.412 E+7	< 2.978 E+6	3	1	0	0
MC1-A06	0	N	10/8/2008	2.982	< 2.982 E+6	< 2.982 E+6	0	0	0	0
MC1-A07	0	N	10/8/2008	2.991	< 2.991 E+6	< 2.991 E+6	0	0	0	0
MC1-AV37	0	N	6/18/2008	2.975	< 2.975 E+6	< 1.410 E+7	4	0	1	0
MC1-AV37R	0	N	1/6/2009	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-AV38	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-AW36	0	N	6/18/2008	2.959	< 2.959 E+6	< 2.959 E+6	0	0	0	0
MC1-AW37	0	N	6/18/2008	2.959	1.480 E+7	< 2.959 E+6	6	5	0	0
MC1-AW37	0	FD	6/18/2008	2.997	1.888 E+7	< 2.997 E+6	3	2	0	0
MC1-AW37R	0	N	1/6/2009	2.975	< 2.975 E+6	< 2.975 E+6	0	0	0	0
MC1-AW37R	0	FD	1/6/2009	2.979	< 2.979 E+6	< 2.979 E+6	0	0	0	0
MC1-AW38	0	N	6/18/2008	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-AW39	0	N	6/18/2008	2.975	< 2.975 E+6	< 2.975 E+6	3	0	0	0
MC1-AX36	0	N	6/18/2008	2.988	1.195 E+7	< 2.988 E+6	5	4	0	0
MC1-AX37	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	1	0	0	0
MC1-AX38	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-AX-39	0	N	6/18/2008	2.971	< 2.971 E+6	< 2.971 E+6	0	0	0	0
MC1-AX-40	0	N	6/18/2008	2.400	< 2.400 E+6	< 2.400 E+6	1	0	0	0
MC1-AY36	0	N	6/18/2008	2.966	< 2.966 E+6	< 2.966 E+6	0	0	0	0
MC1-AY37	0	N	6/18/2008	2.699	< 2.699 E+6	< 2.699 E+6	0	0	0	0
MC1-AY38	0	N	6/18/2008	2.934	1.391 E+7	< 2.934 E+6	1	1	0	0
MC1-AY39	0	N	6/18/2008	2.978	< 2.978 E+6	< 2.978 E+6	0	0	0	0
MC1-AY39	0	FD	6/18/2008	2.952	< 2.952 E+6	< 2.952 E+6	0	0	0	0
MC1-AZ36	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	2	0	0	0
MC1-AZ37	0	N	6/18/2008	2.985	1.791 E+7	< 2.985 E+6	9	6	0	0
MC1-AZ37R	0	N	1/6/2009	2.991	< 2.991 E+6	< 2.991 E+6	1	0	1	0
MC1-BA36	0	N	6/18/2008	2.973	1.409 E+7	< 2.973 E+6	3	1	0	0
MC1-J01	0	N	6/18/2008	2.969	< 2.969 E+6	< 2.969 E+6	0	0	0	0
MC1-J02	0	N	6/18/2008	2.978	1.876 E+7	< 2.978 E+6	7	2	0	0
MC1-J03	0	N	6/18/2008	2.993	< 2.993 E+6	< 2.993 E+6	0	0	0	0
MC1-J04	0	N	6/18/2008	2.975	< 2.975 E+6	< 2.975 E+6	0	0	0	0
MC1-J05	0	N	6/18/2008	2.966	< 2.966 E+6	< 2.966 E+6	0	0	0	0
MC1-J06	0	N	6/18/2008	2.978	1.412 E+7	< 2.978 E+6	2	1	0	0
MC1-J07	0	N	6/18/2008	2.973	< 2.973 E+6	< 2.973 E+6	1	0	0	0
MC1-J08	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	1	0	0	0
MC1-J09	0	N	6/18/2008	2.972	< 2.972 E+6	< 2.972 E+6	0	0	0	0
MC1-J10	0	N	6/18/2008	2.986	< 2.986 E+6	< 2.986 E+6	0	0	0	0
MC1-J10	0	FD	6/18/2008	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-J11	0	N	6/18/2008	2.961	< 2.961 E+6	< 2.961 E+6	2	0	0	0
MC1-J12	0	N	6/18/2008	2.988	< 2.988 E+6	< 2.988 E+6	0	0	0	0
MC1-J13	0	N	6/18/2008	2.917	1.838 E+7	< 2.917 E+6	4	2	0	0
MC1-J14	0	N	6/18/2008	2.998	1.421 E+7	< 2.998 E+6	1	1	0	0
MC1-J15	0	N	6/18/2008	2.992	< 2.992 E+6	< 2.992 E+6	0	0	0	0
MC1-J16	0	N	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-J17	0	N	6/18/2008	2.995	1.887 E+7	< 2.995 E+6	3	2	0	0
MC1-J18	0	N	6/18/2008	2.966	< 2.966 E+6	< 2.966 E+6	0	0	0	0
MC1-J18	0	FD	6/18/2008	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-J19	0	N	6/18/2008	2.999	< 2.999 E+6	< 2.999 E+6	0	0	0	0
MC1-J20	0	N	6/18/2008	2.919	< 2.919 E+6	< 2.919 E+6	0	0	0	0
MC1-J28	0	N	1/6/2009	2.987	< 2.987 E+6	< 2.987 E+6	0	0	0	0
MC1-J29	0	N	1/6/2009	2.998	< 2.998 E+6	< 2.998 E+6	0	0	0	0
MC1-J30	0	N	1/6/2009	2.997	< 2.997 E+6	< 2.997 E+6	0	0	0	0
MC1-J31	0	N	1/6/2009	2.975	< 2.975 E+6	< 2.975 E+6	0	0	0	0

[1] Fiber dimensions are presented in the respective analytical reports for each sample.

[2] Only long structures present a potential risk and are used for estimating asbestos risks. Total fiber concentrations are presented for informational purposes only.

(shaded box) = Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-2
SOIL ALDEHYDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 2)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Aldehydes: Acetaldehyde	Chloral	Chloroacetaldehyde	Dichloroacetaldehyde	Formaldehyde
MC1-AV37	0	N	6/24/2008	0.359	< 0.069 U	< 0.5 U	< 0.17 UJ	0.313 J+
MC1-AV37	11	N	6/24/2008	0.451	< 0.07 U	< 0.5 U	< 0.18 UJ	0.398 J+
MC1-AV38	0	FD	6/24/2008	< 0.3 U	< 0.068 UJ	< 0.5 U	< 0.17 UJ	1.38
MC1-AV38	0	N	6/24/2008	< 0.3 U	< 0.069 UJ	< 0.5 U	< 0.17 UJ	0.94
MC1-AV38	11	N	6/24/2008	0.339	< 0.07 U	< 0.5 U	< 0.18 UJ	0.41
MC1-AW36	0	N	7/7/2008	< 0.15 U	< 0.069 U	< 0.25 U	< 0.18 UJ	5.39 J-
MC1-AW36	12	N	7/7/2008	< 0.15 U	< 0.072 U	< 0.25 U	< 0.18 UJ	0.374
MC1-AW37	0	N	6/25/2008	0.172 J-	< 0.078 U	< 0.25 UJ	< 0.2 UJ	3.88 J-
MC1-AW37	10	N	6/25/2008	< 0.15 UJ	< 0.17 U	< 0.25 UJ	< 0.42 UJ	< 0.1 UJ
MC1-AW38	0	N	6/24/2008	< 0.3 U	< 0.069 U	< 0.5 U	< 0.18 UJ	3.32 J-
MC1-AW38	12	N	6/24/2008	0.411	< 0.072 UJ	< 0.5 U	< 0.18 UJ	0.367 J+
MC1-AW39	0	N	6/24/2008	0.344	< 0.069 U	< 0.5 U	< 0.17 UJ	0.294 J+
MC1-AW39	12	N	6/24/2008	< 0.3 U	< 0.07 U	< 0.5 U	< 0.18 UJ	0.264
MC1-AX36	0	N	6/30/2008	0.808 J-	< 0.069 U	< 0.498 UJ	< 0.17 UJ	< 0.199 UJ
MC1-AX36	3	N	6/30/2008	1.21 J-	< 0.16 U	< 0.495 UJ	< 0.4 UJ	< 0.198 UJ
MC1-AX36	13	N	6/30/2008	1.27 J-	< 0.074 U	< 0.494 UJ	< 0.19 UJ	< 0.198 UJ
MC1-AX37	0	N	6/26/2008	< 0.3 U	< 0.069 U	< 0.5 U	< 0.17 UJ	4.16
MC1-AX37	10	N	6/26/2008	< 0.3 U	< 0.077 U	< 0.5 U	< 0.2 UJ	0.3
MC1-AX38	0	N	6/25/2008	< 0.15 UJ	< 0.076 U	< 0.25 UJ	< 0.19 UJ	< 0.1 UJ
MC1-AX38	11	N	6/25/2008	< 0.15 UJ	< 0.071 U	< 0.25 UJ	< 0.18 UJ	< 0.1 UJ
MC1-AX39	0	N	6/23/2008	< 0.15 UJ	< 0.069 U	< 0.25 UJ	< 0.17 UJ	0.187 J-
MC1-AX39	3	N	6/23/2008	< 0.15 UJ	< 0.07 UJ	< 0.25 UJ	< 0.18 UJ	0.188 J-
MC1-AX39	13	N	6/23/2008	0.439 J	< 0.07 U	< 0.25 UJ	< 0.18 UJ	0.184 J-
MC1-AX40	0	N	6/23/2008	0.16 J	< 0.069 U	< 0.25 UJ	< 0.18 UJ	0.199 J-
MC1-AX40	5	N	6/23/2008	0.378 J	< 0.069 U	< 0.25 UJ	< 0.18 UJ	0.464 J-
MC1-AX40	15	N	6/23/2008	< 0.15 UJ	< 0.074 U	< 0.25 UJ	< 0.19 UJ	0.231 J-
MC1-AY36	0	FD	7/1/2008	< 0.3 UJ	< 0.15 U	< 0.5 UJ	< 0.37 UJ	< 0.2 UJ
MC1-AY36	0	N	7/1/2008	< 0.3 UJ	< 0.067 UJ	< 0.5 UJ	< 0.17 UJ	< 0.2 UJ
MC1-AY36	3	N	7/1/2008	0.332 J-	< 0.074 U	< 0.5 UJ	< 0.19 UJ	< 0.2 UJ
MC1-AY36	13	N	7/1/2008	< 0.3 UJ	< 0.07 U	< 0.5 UJ	< 0.18 UJ	< 0.2 UJ
MC1-AY37	0	N	7/7/2008	< 0.15 U	< 0.068 U	< 0.25 U	< 0.17 UJ	0.373
MC1-AY37	4	N	7/7/2008	< 0.15 U	< 0.069 U	< 0.25 U	< 0.17 UJ	0.411
MC1-AY37	14	N	7/7/2008	< 0.15 U	< 0.07 U	< 0.25 U	< 0.18 UJ	0.288
MC1-AY38	0	N	7/7/2008	< 0.15 U	< 0.068 U	< 0.25 U	< 0.17 UJ	0.269
MC1-AY38	11	N	7/7/2008	< 0.15 U	< 0.07 U	< 0.25 U	< 0.18 UJ	0.558
MC1-AY39	0	FD	7/7/2008	< 0.15 U	< 0.068 U	< 0.25 U	< 0.17 UJ	0.266
MC1-AY39	0	N	7/7/2008	< 0.15 U	< 0.068 U	< 0.25 U	< 0.17 UJ	0.296
MC1-AY39	11	N	7/7/2008	< 0.15 U	< 0.076 U	< 0.25 U	< 0.19 UJ	0.32
MC1-AZ36	0	N	6/30/2008	0.339 J-	< 0.071 U	< 0.5 UJ	< 0.18 UJ	< 0.2 UJ
MC1-AZ36	3	N	6/30/2008	< 0.299 UJ	< 0.069 U	< 0.498 UJ	< 0.18 UJ	< 0.199 UJ
MC1-AZ36	13	N	6/30/2008	0.886 J-	< 0.071 U	< 0.499 UJ	< 0.18 UJ	< 0.2 UJ
MC1-AZ37	0	N	6/30/2008	< 0.299 UJ	< 0.069 U	< 0.499 UJ	< 0.17 UJ	< 0.199 UJ
MC1-AZ37	12	N	6/30/2008	0.417 J-	< 0.15 U	< 0.494 UJ	< 0.38 UJ	< 0.197 UJ
MC1-BA36	0	N	6/30/2008	0.372 J-	< 0.068 U	< 0.495 UJ	< 0.17 UJ	< 0.198 UJ
MC1-BA36	12	N	6/30/2008	0.771 J-	< 0.073 U	< 0.5 UJ	< 0.19 UJ	< 0.2 UJ
MC1-J01	0	FD	6/30/2008	< 0.299 UJ	< 0.14 U	< 0.499 UJ	< 0.36 UJ	< 0.199 UJ
MC1-J01	0	N	6/30/2008	1.25 J-	< 0.071 U	< 0.496 UJ	< 0.18 UJ	< 0.198 UJ
MC1-J01	3	N	6/30/2008	0.768 J-	< 0.072 U	< 0.495 UJ	< 0.18 UJ	< 0.198 UJ
MC1-J01	13	N	6/30/2008	< 0.298 UJ	< 0.073 U	< 0.496 UJ	< 0.18 UJ	< 0.198 UJ
MC1-J02	0	FD	6/26/2008	< 0.3 U	< 0.071 U	< 0.5 U	< 0.18 UJ	1
MC1-J02	0	N	6/26/2008	< 0.3 U	< 0.069 U	< 0.5 U	< 0.18 UJ	1.06
MC1-J02	8	N	6/26/2008	< 0.3 U	< 0.07 U	< 0.5 U	< 0.18 UJ	1.61
MC1-J02	18	N	6/26/2008	< 0.3 U	< 0.075 U	< 0.5 U	< 0.19 UJ	0.402
MC1-J03	0	N	6/26/2008	< 0.3 U	< 0.076 U	< 0.5 U	< 0.19 UJ	0.538
MC1-J03	6	N	6/26/2008	< 0.3 U	< 0.15 U	< 0.5 U	< 0.39 UJ	< 0.2 U
MC1-J03	16	N	6/26/2008	< 0.3 U	< 0.07 U	< 0.5 U	< 0.18 UJ	0.343
MC1-J04	0	N	6/26/2008	< 0.3 U	< 0.068 U	< 0.5 U	< 0.17 UJ	0.842
MC1-J04	8	N	6/26/2008	1.51	< 0.073 U	< 0.499 U	< 0.18 UJ	5.35

TABLE B-2
SOIL ALDEHYDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 2)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Aldehydes				
				Acetaldehyde	Chloral	Chloroacetaldehyde	Dichloroacetaldehyde	Formaldehyde
MC1-J04	18	N	6/26/2008	1.32	< 0.071 U	< 0.498 U	< 0.18 UJ	1.79
MC1-J05	0	N	7/1/2008	0.488 J-	< 0.073 U	< 0.5 UJ	< 0.18 UJ	3.58 J-
MC1-J05	9	N	7/1/2008	0.304 J-	< 0.074 U	< 0.5 UJ	< 0.19 UJ	< 0.2 UJ
MC1-J06	0	N	6/25/2008	< 0.3 UJ	< 0.068 U	< 0.5 UJ	< 0.17 UJ	1.41 J-
MC1-J06	8	N	6/25/2008	< 0.15 UJ	< 0.07 U	< 0.25 UJ	< 0.18 UJ	< 0.1 UJ
MC1-J06	18	N	6/25/2008	< 0.3 UJ	< 0.078 U	< 0.5 UJ	< 0.2 UJ	0.864 J-
MC1-J07	0	N	6/23/2008	0.193 J	< 0.07 U	< 0.25 UJ	< 0.18 UJ	0.148 J-
MC1-J07	8	N	6/23/2008	0.414 J	< 0.068 U	< 0.25 UJ	< 0.17 UJ	0.179 J-
MC1-J07	18	N	6/23/2008	0.208 J	< 0.069 U	< 0.25 UJ	< 0.18 UJ	0.188 J-
MC1-J08	0	FD	6/23/2008	0.214 J	< 0.072 U	< 0.25 UJ	< 0.18 UJ	0.301 J-
MC1-J08	0	N	6/23/2008	< 0.15 UJ	< 0.069 U	< 0.25 UJ	< 0.18 UJ	0.138 J-
MC1-J08	9	N	6/23/2008	0.187 J	< 0.069 UJ	< 0.25 UJ	< 0.18 UJ	0.185 J-
MC1-J08	19	N	6/23/2008	0.385 J	< 0.07 U	< 0.25 UJ	< 0.18 UJ	0.208 J-
MC1-J09	0	N	6/24/2008	0.44	< 0.069 U	< 0.5 U	< 0.18 UJ	0.51 J+
MC1-J09	10	N	6/24/2008	< 0.3 U	< 0.07 UJ	< 0.5 U	< 0.18 UJ	2.72 J+
MC1-J10	0	N	6/30/2008	0.71 J-	< 0.071 U	< 0.499 UJ	< 0.18 UJ	< 0.199 UJ
MC1-J10	3	N	6/30/2008	0.779 J-	< 0.075 U	< 0.496 UJ	< 0.19 UJ	< 0.198 UJ
MC1-J10	13	N	6/30/2008	0.999 J-	< 0.071 U	< 0.495 UJ	< 0.18 UJ	< 0.198 UJ
MC1-J11	0	N	6/24/2008	< 0.3 U	< 0.072 U	< 0.5 U	< 0.18 UJ	< 0.4 UJ
MC1-J11	4	N	6/24/2008	0.456	< 0.075 U	< 0.5 U	< 0.19 UJ	0.29 J+
MC1-J11	14	N	6/24/2008	0.405	< 0.078 U	< 0.5 U	< 0.2 UJ	0.514 J+
MC1-J12	0	FD	6/25/2008	0.152 J-	< 0.071 U	< 0.25 UJ	< 0.18 UJ	< 0.1 UJ
MC1-J12	0	N	6/25/2008	< 0.3 UJ	< 0.078 U	< 0.5 UJ	< 0.2 UJ	2.78 J
MC1-J12	11	N	6/25/2008	< 0.15 UJ	< 0.072 U	< 0.25 UJ	< 0.18 UJ	< 0.1 UJ
MC1-J13	0	N	6/25/2008	< 0.15 UJ	< 0.068 U	< 0.25 UJ	< 0.17 UJ	< 0.1 UJ
MC1-J13	12	N	6/25/2008	< 0.15 UJ	< 0.077 U	< 0.25 UJ	< 0.2 UJ	< 0.1 UJ
MC1-J14	0	N	6/25/2008	< 0.15 UJ	< 0.074 U	< 0.25 UJ	< 0.19 UJ	1.13 J-
MC1-J14	12	N	6/25/2008	< 0.15 UJ	< 0.069 U	< 0.25 UJ	< 0.18 UJ	< 0.1 UJ
MC1-J15	0	FD	6/26/2008	0.87	< 0.072 U	< 0.5 U	< 0.18 UJ	6.74
MC1-J15	0	N	6/26/2008	0.41	< 0.072 U	< 0.5 U	< 0.18 UJ	6.29
MC1-J15	11	N	6/26/2008	< 0.3 U	< 0.074 U	< 0.5 U	< 0.19 UJ	0.563
MC1-J16	0	N	6/26/2008	< 0.3 U	< 0.069 U	< 0.5 U	< 0.17 UJ	0.946
MC1-J16	3	N	6/26/2008	< 0.3 U	< 0.07 U	< 0.5 U	< 0.18 UJ	1.14
MC1-J16	13	N	6/26/2008	< 0.3 U	< 0.15 U	< 0.5 U	< 0.38 UJ	0.366
MC1-J17	0	N	6/25/2008	< 0.15 UJ	< 0.077 U	< 0.25 UJ	< 0.2 UJ	< 0.1 UJ
MC1-J17	10	N	6/25/2008	< 0.3 UJ	--	< 0.5 UJ	--	0.485 J-
MC1-J18	0	FD	7/7/2008	< 0.15 U	< 0.068 U	< 0.25 U	< 0.17 UJ	1.35
MC1-J18	0	N	7/7/2008	< 0.15 U	< 0.069 U	< 0.25 U	< 0.18 UJ	1.36
MC1-J18	12	N	7/7/2008	< 0.15 U	< 0.071 U	< 0.25 U	< 0.18 UJ	0.52
MC1-J19	0	N	7/7/2008	< 0.15 U	< 0.07 U	< 0.25 U	< 0.18 UJ	0.862
MC1-J19	4	N	7/7/2008	< 0.15 U	< 0.074 U	< 0.25 U	< 0.19 UJ	0.601
MC1-J19	14	N	7/7/2008	< 0.15 U	< 0.071 U	< 0.25 U	< 0.18 UJ	0.317
MC1-J20	0	N	7/7/2008	< 0.15 U	< 0.069 U	< 0.25 U	< 0.17 UJ	0.446
MC1-J20	10	N	7/7/2008	< 0.15 U	< 0.07 U	< 0.25 U	< 0.18 UJ	0.312
MC1-J23	0	N	1/6/2009	< 0.317 U	--	--	--	< 0.211 U
MC1-J24	0	N	1/6/2009	< 0.312 U	--	--	--	< 0.208 U

All units in mg/kg.
-- = no sample data.

TABLE B-3
SOIL DIOXINS/FURANS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 4)

Sample ID	Depth (ft bgs)	Sample Type	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-HCDF	1,2,3,7,8,9-HxCDD
MC1-AV37	0	N	6/24/2008	17	< 2.5 U	6.5	7.2	< 0.71 U	7.6	< 0.77 U	< 1.4 U	< 0.89 U
MC1-AV38	0	FD	6/24/2008	240 J	32 J	110 J	80 J	< 4.2 U	83 J	9.1 J	9.1 J	5.2
MC1-AV38	0	N	6/24/2008	33 J	5.8 J	14 J	11 J	< 2 U	10 J	< 1.7 UJ	< 2.5 UJ	< 0.88 U
MC1-AV38C	0	N	1/6/2009	48	8.3	22	23	< 1.1 U	17	< 2.4 U	3.3 J	< 2.1 U
MC1-AV38NE	0	N	1/6/2009	14	< 2.1 U	6.9	8.3	< 0.56 U	5.4	< 1 U	< 1.3 U	< 0.56 U
MC1-AV38NW	0	N	1/6/2009	12	< 2.1 U	5 J	5.4	< 0.47 U	3.5 J	< 0.76 U	< 0.59 U	< 0.47 U
MC1-AV38SE	0	N	1/6/2009	14	< 2.1 U	6.5	6.1	< 0.86 U	3.9 J	< 0.78 U	< 0.78 U	< 0.77 U
MC1-AV38SW	0	N	1/6/2009	150	18	70	69	< 2.7 U	51	5.6 J	10	4.2 J
MC1-AW36	0	N	7/7/2008	< UJ	3.2 J	< 2.4 UJ	2.8 J	< 1.6 U	< 1.6 U	< 1.2 U	< 1.2 U	< 1.2 U
MC1-AW37	0	N	6/25/2008	< 2 U	< 2.1 U	< 2.4 U	< 0.81 U	< 1.4 U	< 0.77 U	< 1.2 U	< 0.88 U	< 1.2 U
MC1-AW38	0	N	6/24/2008	< 0.73 U	< 1.3 U	< 0.77 U	< 0.62 U	< 0.78 U	< 0.59 U	< 0.68 U	< 0.67 U	< 0.66 U
MC1-AW39	0	N	6/24/2008	44	12	24	22	< 2.4 U	23	< 3.9 U	5.5	< 1.8 U
MC1-AX36	0	N	6/30/2008	< 0.072 U	< 0.063 U	< 0.044 U	< 0.071 U	< 0.096 U	< 0.047 U	< 0.077 U	< 0.037 U	< 0.077 U
MC1-AX36	13	N	6/30/2008	< 0.074 UJ	< 0.052 UJ	< 0.088 UJ	< 0.031 U	< 0.08 U	< 0.028 U	< 0.2 U	< 0.11 U	< 0.25 U
MC1-AX37	0	N	6/26/2008	< 2.5 UJ	< 0.87 UJ	< 1 UJ	< 1.7 U	< 0.25 U	< 0.73 U	< 0.3 U	< 0.43 U	< 0.31 U
MC1-AX38	0	N	6/25/2008	< 1.2 U	< 1.1 U	< 1.4 U	< 1 U	< 1.1 U	< 0.96 U	< 0.92 U	< 1.1 U	< 0.89 U
MC1-AX39	0	N	6/23/2008	31 J	6.7 J	18 J	35	< 1.8 U	14	< 1.9 U	< 1.8 U	< 1.5 U
MC1-AX39	3	N	6/23/2008	< 5.1 UJ	< 4.9 UJ	< 1.7 UJ	< 1.9 U	< 2.4 U	< 1.7 U	< 2.1 U	< 1.9 U	< 2 U
MC1-AX40	0	N	6/23/2008	< 2.2 UJ	< 2.4 UJ	< 2.6 UJ	< 1.1 U	< 1.6 U	< 1 U	< 1.4 U	< 1.2 U	< 1.3 U
MC1-AX40	5	N	6/23/2008	< 2.8 UJ	< 3.1 UJ	< 3.3 UJ	< 1.4 U	< 1.7 U	< 1.3 U	< 1.5 U	< 1.5 U	< 1.4 U
MC1-AY36	0	FD	7/1/2008	89 J	17 J	40 J	58 J	< 2.2 U	34 J	4.9 J	5.4 J	4.1 J
MC1-AY36	0	N	7/1/2008	320 J	56 J	110 J	150 J	5.5	84 J	13 J	13 J	9.8 J
MC1-AY36	3	N	7/1/2008	< 0.12 U	< 0.043 U	< 0.083 U	< 0.062 U	< 0.08 U	< 0.038 U	< 0.064 U	< 0.039 U	< 0.06 U
MC1-AY36C	0	N	1/6/2009	140	28	62	69	2.7 J	46	6.2	8	4.1 J
MC1-AY36NE	0	N	1/6/2009	110	15	45	44	< 2 U	37	4.5 J	5.8	< 2 U
MC1-AY36NW	0	N	1/6/2009	23	5.2	11	12	< 0.62 U	8.9	< 1.4 U	< 1.5 U	< 1.3 U
MC1-AY36SE	0	N	1/6/2009	< 0.48 U	< 0.62 U	< 0.56 U	< 0.51 U	< 0.65 U	< 0.47 U	< 0.59 U	< 0.55 U	< 0.58 U
MC1-AY36SW	0	FD	1/6/2009	4.1 J	< 0.83 U	< 1.7 U	< 2.5 U	< 0.56 U	< 1.4 U	< 0.51 U	< 0.51 U	< 0.5 U
MC1-AY36SW	0	N	1/6/2009	3.8 J	< 1.2 U	< 2.3 U	< 2.4 U	< 1 U	< 1.9 U	< 0.93 U	< 0.98 U	< 0.91 U
MC1-AY37	0	N	7/7/2008	24	3.9 J	11	14	< 0.91 U	7.8	< 1.3 U	< 0.87 U	< 0.73 U
MC1-AY37	4	N	7/7/2008	< 1.7 U	< 1.3 U	< 1.1 U	< 0.99 U	< 1.1 U	< 0.81 U	< 0.85 U	< 1.1 U	< 0.87 U
MC1-AY38	0	N	7/7/2008	< UJ	3.9 J	< 2.2 UJ	< 2.6 UJ	< 1.9 UJ	< 1.4 UJ	< 1.4 UJ	< 1.8 UJ	< 1.5 UJ
MC1-AY39	0	FD	7/7/2008	< UJ	< 2.2 UJ	2.8 J	4.7 J	< 2.2 UJ	< 1.7 UJ	< 1.7 UJ	< 1.5 UJ	< 1.7 UJ
MC1-AY39	0	N	7/7/2008	< U	< 0.96 U	< 0.95 U	< 2.4 U	< 1.1 U	< 0.93 U	< 0.8 U	< 0.81 U	< 0.82 U
MC1-AZ36	0	N	6/30/2008	6.3 J	2.5 J	3.2 J	4.3 J	< 0.14 U	< 2.5 U	< 0.51 U	< 0.73 U	< 0.49 U
MC1-AZ36	3	N	6/30/2008	< 0.035 U	< 0.074 U	< 0.043 U	< 0.03 U	< 0.037 U	< 0.022 U	< 0.03 U	< 0.027 U	< 0.037 U
MC1-AZ37	0	N	6/30/2008	12	< 2.3 U	5.8	7.7	< 0.31 U	5.7	< 0.97 U	< 1.2 U	< 0.86 U
MC1-BA36	0	N	6/30/2008	2.9 J	< 0.47 U	< 1.1 UJ	< 1.7 U	< 0.1 U	< 1.2 U	< 0.32 U	< 0.44 U	< 0.1 U
MC1-J01	0	FD	6/30/2008	< 0.25 UJ	< 0.22 UJ	< 0.18 UJ	< 0.053 UJ	< 0.097 U	< 0.047 UJ	< 0.077 U	< 0.078 UJ	< 0.17 U
MC1-J01	0	N	6/30/2008	< 0.043 U	< 0.011 U	< 0.035 U	< 0.029 U	< 0.036 U	< 0.025 U	< 0.029 U	< 0.015 U	< 0.028 U
MC1-J01	3	N	6/30/2008	< 0.12 UJ	< 0.22 UJ	< 0.078 UJ	< 0.04 U	< 0.042 U	< 0.023 U	< 0.033 U	< 0.032 U	< 0.058 U
MC1-J02	0	FD	6/26/2008	< 1.6 UJ	< 0.71 UJ	< 0.64 UJ	< 1.1 UJ	< 0.37 U	< 0.61 UJ	< 0.31 U	< 0.35 U	< 0.18 U
MC1-J02	0	N	6/26/2008	46 J	17 J	22 J	28 J	< 0.98 U	16 J	3.6 J	2.9 J	< 2.4 U
MC1-J02	8	N	6/26/2008	< 0.27 U	< 0.15 U	< 0.31 U	< 0.1 U	< 0.2 U	< 0.087 U	< 0.16 U	< 0.1 U	< 0.16 U
MC1-J03	0	N	6/26/2008	5.5 J	< 1.5 UJ	2.6 J	2.6 J	< 0.24 U	< 1.8 U	< 0.76 U	< 1 U	< 0.42 U
MC1-J03	6	N	6/26/2008	< 0.86 U	< 0.3 U	< 0.31 U	< 0.57 U	< 0.19 U	< 0.23 U	< 0.16 U	< 0.22 U	< 0.16 U
MC1-J04	0	N	6/26/2008	< 0.44 U	< 0.12 U	< 0.24 U	< 0.34 U	< 0.15 U	< 0.23 U	< 0.12 U	< 0.16 U	< 0.12 U
MC1-J04	8	N	6/26/2008	< 0.18 U	< 0.11 U	< 0.22 U	< 0.12 U	< 0.17 U	< 0.1 U	< 0.14 U	< 0.13 U	< 0.15 U
MC1-J05	0	N	7/1/2008	52	21	21	36	< 2 U	21	6.9	< 2.6 U	3.8 J
MC1-J06	0	N	6/25/2008	13 J	< 5 UJ	9.7 J	9.1	< 1.9 U	5 J	< 1.6 U	< 1.4 U	< 1.6 U
MC1-J06	8	N	6/25/2008	< 3.7 UJ	< 5 UJ	< 4.4 UJ	< 1.9 UJ	< 2.3 UJ	< 1.8 UJ	< 2 UJ	< 2.1 UJ	< 1.9 UJ
MC1-J07	0	N	6/23/2008	< 1.1 U	< 1.9 U	< 1.3 U	< 0.72 U	< 1.2 U	< 0.68 U	< 1.1 U	< 0.79 U	< 1 U
MC1-J07	8	N	6/23/2008	< 1.7 U	< 2.2 U	< 2 U	< 0.98 U	< 1.5 U	< 0.93 U	< 1.3 U	< 1.1 U	< 1.3 U
MC1-J08	0	FD	6/23/2008	< 1.6 U	< 1.7 U	< 1.6 U	< 0.93 U	< 1.4 U	< 0.88 U	< 1.2 U	< 1 U	< 1.2 U
MC1-J08	0	N	6/23/2008	< 3.5 UJ	< 4.9 UJ	< 4.2 UJ	< 2 U	< 2.3 UJ	< 1.9 U	< 2 UJ	< 2.2 U	< 1.9 UJ
MC1-J08	9	N	6/23/2008	< 0.98 U	< 1.2 U	< 1.2 U	< 0.69 U	< 1.1 U	< 0.65 U	< 0.96 U	< 0.75 U	< 0.92 U
MC1-J09	0	N	6/24/2008	< 1.3 U	< 2.4 U	< 1.6 U	< 0.87 U	< 1.2 U	< 0.81 U	< 1.1 U	< 0.94 U	< 1 U
MC1-J10	0	N	6/30/2008	< 0.21 U	< 0.097 U	< 0.12 U	< 0.08 U	< 0.029 U	< 0.083 U	< 0.064 U	< 0.035 U	< 0.11 U

TABLE B-3
SOIL DIOXINS/FURANS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	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-HCDF	1,2,3,7,8,9-HxCDD
MC1-J10	3	N	6/30/2008	< 0.078 U	< 0.091 U	< 0.049 U	< 0.026 U	< 0.14 U	< 0.023 U	< 0.11 U	< 0.043 U	< 0.15 U
MC1-J11	0	N	6/24/2008	< 0.91 U	< 0.88 U	< 0.53 U	< 0.61 U	< 0.73 U	< 0.58 U	< 0.63 U	< 0.66 U	< 0.61 U
MC1-J11	4	N	6/24/2008	< 0.48 U	< 0.69 U	< 0.57 U	< 0.45 U	< 0.67 U	< 0.42 U	< 0.59 U	< 0.48 U	< 0.57 U
MC1-J12	0	FD	6/25/2008	< 1.5 U	< 1.6 U	< 1.8 U	< 1.3 U	< 1.4 U	< 0.9 U	< 1.2 U	< 1 U	< 1.2 U
MC1-J12	0	N	6/25/2008	3.1 J	< 1.3 U	< 1.1 U	< 2.3 U	< 1.1 U	< 0.91 U	< 1 U	< 1 U	< 0.96 U
MC1-J13	0	N	6/25/2008	5.7	< 1.5 U	3.7 J	8.5	< 1.4 U	< 2 U	< 1.2 U	< 1.1 U	< 1.1 U
MC1-J14	0	N	6/25/2008	< 2.2 UJ	< 2 UJ	< 2.6 UJ	< 1.1 U	< 1.7 U	< 1 U	< 1.5 U	< 1.2 U	< 1.4 U
MC1-J15	0	FD	6/26/2008	< 0.31 U	< 0.3 U	< 0.35 U	< 0.18 U	< 0.24 U	< 0.15 U	< 0.19 U	< 0.19 U	< 0.2 U
MC1-J15	0	N	6/26/2008	< 0.16 U	< 0.15 U	< 0.18 U	< 0.12 U	< 0.17 U	< 0.11 U	< 0.14 U	< 0.13 U	< 0.15 U
MC1-J16	0	N	6/26/2008	< 0.23 UJ	< 0.28 UJ	< 0.26 UJ	< 0.15 U	< 0.21 U	< 0.14 U	< 0.18 U	< 0.17 U	< 0.18 U
MC1-J16	3	N	6/26/2008	< 0.16 U	< 0.13 U	< 0.18 U	< 0.11 U	< 0.13 U	< 0.09 U	< 0.11 U	< 0.11 U	< 0.11 U
MC1-J17	0	N	6/25/2008	< 1.2 U	< 1.9 U	< 1.4 U	< 0.94 U	< 1.8 U	< 0.9 U	< 1.6 U	< 1 U	< 1.5 U
MC1-J18	0	FD	7/7/2008	< UJ	< 3.6 UJ	< 3.7 UJ	< 1.6 UJ	< 2.1 U	< 1.3 UJ	< 1.6 U	< 1.7 UJ	< 1.6 U
MC1-J18	0	N	7/7/2008	< UJ	4 J	< 2 UJ	4.9 J	< 1.9 U	< 2.4 U	< 1.4 U	< 1.2 U	< 1.4 U
MC1-J19	0	N	7/7/2008	< 1.7 U	< 1.4 U	< 1.3 U	< 0.86 U	< 1.3 U	< 0.7 U	< 0.94 U	< 0.91 U	< 0.97 U
MC1-J19	4	N	7/7/2008	< UJ	2.9 J	< 2.9 UJ	< 1.6 UJ	< 2.2 U	< 1.3 UJ	< 1.7 U	< 1.7 UJ	< 1.7 U
MC1-J20	0	N	7/7/2008	29 J	2.9 J	4.8 J	9.4 J	< 2.2 UJ	4.1 J	< 1.7 UJ	< 1.8 UJ	< 1.7 UJ

All units in pg/g.

-- = no sample data.

[grey box] = Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-3
SOIL DIOXINS/FURANS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Dioxins/Furans								
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	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	OCDF	OCDD	TCDD TEQ
MC1-AV37	0	N	6/24/2008	7.2	< 0.99 U	< 1.7 U	3.8 J	2.8	< 0.36 U	< 3.5 U	78	5.4
MC1-AV38	0	FD	6/24/2008	71 J	< 6.8 U	24 J	35 J	39 J	1.1	81 J	890 J	57.3
MC1-AV38	0	N	6/24/2008	10 J	< 1.3 U	< 2.6 UJ	5.2 J	5.1 J	< 0.46 U	15 J	120 J	8
MC1-AV38C	0	N	1/6/2009	16	< 1.4 U	5 J	8.7	9.5	< 0.47 U	20	150	13.8
MC1-AV38NE	0	N	1/6/2009	6.8	< 0.79 U	< 1.3 U	3.4 J	3.8	< 0.51 U	< 4 U	37	5
MC1-AV38NW	0	N	1/6/2009	3.4 J	< 0.7 U	< 1 U	< 2 U	1.9	< 0.3 U	11	38	2.7
MC1-AV38SE	0	N	1/6/2009	3 J	< 0.92 U	< 1.2 U	< 1.6 U	1.8	< 0.68 U	< 4.2 U	38	3.1
MC1-AV38SW	0	N	1/6/2009	46	4 J	13	24	20	1 J	28	460	40.2
MC1-AW36	0	N	7/7/2008	< 1.2 U	< 1 U	< 1.1 U	< 0.76 U	0.79 J	< 0.45 U	< 7.2 UJ	13 J	1.9
MC1-AW37	0	N	6/25/2008	< 0.87 U	< 1.2 U	< 0.81 U	< 0.9 U	< 0.44 U	< 0.49 U	< 3.2 UJ	< 4.9 UJ	1.6
MC1-AW38	0	N	6/24/2008	< 0.6 U	< 1.3 U	< 0.62 U	< 0.63 U	< 0.31 U	< 0.42 U	< 2.5 U	< 2.9 U	1.4
MC1-AW39	0	N	6/24/2008	34	3.1 J	5.2	18	20	0.87 J	18	190 J+	25.7
MC1-AX36	0	N	6/30/2008	< 0.079 U	< 0.06 U	< 0.019 U	< 0.047 U	< 0.17 U	< 0.046 U	< 0.41 U	< 0.11 U	0.21
MC1-AX36	13	N	6/30/2008	< 0.042 U	< 0.079 U	< 0.032 U	< 0.019 U	< 0.061 U	< 0.035 U	< 0.5 UJ	< 0.22 UJ	0.23
MC1-AX37	0	N	6/26/2008	< 0.66 U	< 0.23 U	< 0.27 U	< 0.51 U	0.56 J	< 0.12 U	< 2.7 UJ	13 J	0.73
MC1-AX38	0	N	6/25/2008	< 0.6 U	< 0.93 U	< 1 U	< 0.63 U	< 0.28 U	< 0.44 U	< 1.3 U	6.5 J	1.4
MC1-AX39	0	N	6/23/2008	17	< 1.5 U	< 2.1 U	8.8	13	< 0.7 U	12 J	110 J	15.3
MC1-AX39	3	N	6/23/2008	< 1.2 U	< 1.1 U	< 1.7 U	< 1.3 U	0.61 J	< 0.6 U	< 9 UJ	< 10 UJ	2.1
MC1-AX40	0	N	6/23/2008	< 0.8 U	< 1.2 U	< 1.1 U	< 0.84 U	< 0.52 U	< 0.43 U	< 3.9 UJ	< 5.1 UJ	1.7
MC1-AX40	5	N	6/23/2008	< 0.76 U	< 1.3 U	< 1.4 U	< 0.79 U	< 0.49 U	< 0.39 U	< 5.5 UJ	< 6.3 UJ	1.8
MC1-AY36	0	FD	7/1/2008	29 J	< 3.1 U	23	18 J	17 J	< 0.62 U	29 J	300 J	29.6
MC1-AY36	0	N	7/1/2008	63 J	5.2	25	36 J	30 J	1.5	100 J	1200	66.2
MC1-AY36	3	N	7/1/2008	< 0.047 U	< 0.062 U	< 0.034 U	< 0.042 U	< 0.019 U	< 0.044 U	< 0.35 U	< 0.24 U	0.21
MC1-AY36C	0	N	1/6/2009	44	3.9 J	12	25	21	1.2	140	540	40.7
MC1-AY36NE	0	N	1/6/2009	37	2.9 J	9.2	21	19	0.96 J	29	370	31.4
MC1-AY36NW	0	N	1/6/2009	8.8	< 0.97 U	< 2.5 U	4.4 J	4.5	< 0.5 U	9.1 J	84	7.1
MC1-AY36SE	0	N	1/6/2009	< 0.68 U	< 0.88 U	< 0.5 U	< 0.72 U	< 0.42 U	< 0.44 U	5.3 J	< 0.97 U	1.2
MC1-AY36SW	0	FD	1/6/2009	< 1.1 U	< 0.67 U	< 0.48 U	< 0.56 U	0.65 J	< 0.35 U	< 1.3 U	11	1.2
MC1-AY36SW	0	N	1/6/2009	< 1.2 U	< 1.3 U	< 0.91 U	< 1.1 U	0.63 J	< 0.59 U	< 2.4 U	14	1.9
MC1-AY37	0	N	7/7/2008	6.4	< 0.89 U	< 2.1 U	3.3 J	3.2	< 0.47 U	5.9 J	81	6.2
MC1-AY37	4	N	7/7/2008	< 0.52 U	< 0.93 U	< 0.94 U	< 0.55 U	< 0.27 U	< 0.44 U	< 2.3 UJ	< 2.7 UJ	1.3
MC1-AY38	0	N	7/7/2008	< 0.99 U	< 1.2 U	< 1.6 UJ	< 0.98 U	0.98 J	< 0.66 U	5.6 J	19 J	2.2
MC1-AY39	0	FD	7/7/2008	< 1.5 UJ	< 1.8 UJ	< 1.3 UJ	< 1.5 UJ	1.4	< 0.86 U	< 4.2 UJ	21 J	3.1
MC1-AY39	0	N	7/7/2008	< 0.86 U	< 1.3 U	< 0.72 U	< 0.92 U	0.51 J	< 0.57 U	< 1.9 U	11 J+	1.8
MC1-AZ36	0	N	6/30/2008	< 2.4 U	< 0.21 U	< 1.5 U	< 1.5 U	1.7	< 0.072 U	< 3.9 UJ	24 J	1.8
MC1-AZ36	3	N	6/30/2008	< 0.032 U	< 0.062 U	< 0.025 U	< 0.035 U	< 0.023 U	< 0.1 U	< 0.42 U	< 0.12 U	0.22
MC1-AZ37	0	N	6/30/2008	6.5	< 0.36 U	< 1.8 U	3.3 J	3.6	< 0.037 U	< 2.6 U	29	4.5
MC1-BA36	0	N	6/30/2008	< 0.9 U	< 0.21 U	< 0.42 U	< 0.33 U	0.73 J	< 0.19 U	< 1.2 UJ	7.5 J	0.75
MC1-J01	0	FD	6/30/2008	< 0.072 U	< 0.12 U	< 0.083 UJ	< 0.078 U	< 0.043 U	< 0.064 U	< 1.7 UJ	< 0.53 UJ	0.28
MC1-J01	0	N	6/30/2008	< 0.014 U	< 0.055 U	< 0.029 U	< 0.015 U	< 0.039 U	< 0.051 U	< 0.32 U	< 0.074 U	0.19
MC1-J01	3	N	6/30/2008	< 0.028 U	< 0.076 U	< 0.028 U	< 0.03 U	< 0.028 U	< 0.044 U	< 1.9 UJ	< 0.48 UJ	0.21
MC1-J02	0	FD	6/26/2008	< 0.65 UJ	< 0.2 U	< 0.24 U	< 0.32 UJ	0.55 J	< 0.14 U	< 1.2 UJ	7.1 J	0.62
MC1-J02	0	N	6/26/2008	17 J	< 1.2 U	4.3 J	9.5 J	9.7 J	0.66 J	53 J	250 J	15.8
MC1-J02	8	N	6/26/2008	< 0.14 U	< 0.29 U	< 0.098 U	< 0.14 U	< 0.45 U	< 0.16 U	< 1.1 UJ	< 1 UJ	0.45
MC1-J03	0	N	6/26/2008	< 1.9 U	< 0.33 U	< 1.1 U	< 1.1 U	1.1	< 0.18 U	5.1 J	27 J	1.4
MC1-J03	6	N	6/26/2008	< 0.15 U	< 0.26 U	< 0.16 U	< 0.16 U	< 0.22 U	< 0.17 U	< 2.1 U	< 3.3 U	0.48
MC1-J04	0	N	6/26/2008	< 0.15 U	< 0.22 U	< 0.12 U	< 0.11 U	< 0.26 U	< 0.11 U	< 0.99 UJ	< 1.4 UJ	0.39
MC1-J04	8	N	6/26/2008	< 0.098 U	< 0.18 U	< 0.11 U	< 0.098 U	< 0.32 U	< 0.14 U	< 1.3 UJ	< 0.77 UJ	0.37
MC1-J05	0	N	7/1/2008	21	< 2.3 U	6.3	14	14	0.61 J	47	260	23.3
MC1-J06	0	N	6/25/2008	5.2	< 1.2 U	< 1.3 U	2.8 J	2.6	< 0.44 U	< 3.3 UJ	73 J	5.2
MC1-J06	8	N	6/25/2008	< 0.8 U	< 1.1 U	< 1.9 UJ	< 0.83 U	< 0.37 U	< 0.44 U	< 8.8 UJ	< 10 UJ	1.9
MC1-J07	0	N	6/23/2008	< 0.79 U	< 1.2 U	< 0.72 U	< 0.82 U	< 0.44 U	< 0.51 U	< 3.7 U	< 2.5 U	1.6
MC1-J07	8	N	6/23/2008	< 0.58 U	< 0.84 U	< 0.98 U	< 0.6 U	< 0.35 U	< 0.41 U	< 3.7 UJ	< 5.2 UJ	1.4
MC1-J08	0	FD	6/23/2008	< 1 U	< 1.2 U	< 0.93 U	< 0.76 U	0.59 J	< 0.32 U	< 2.2 U	< 3.6 U	1.6
MC1-J08	0	N	6/23/2008	< 1.4 U	< 1.7 U	< 2 U	< 1.3 U	0.86 J	< 0.59 U	< 7.5 UJ	< 5.9 UJ	2.5
MC1-J08	9	N	6/23/2008	< 0.78 U	< 0.83 U	< 0.69 U	< 0.81 U	< 0.48 U	< 0.43 U	7.1 J	< 1.8 U	1.3
MC1-J09	0	N	6/24/2008	< 0.89 UJ	< 1.9 UJ	< 0.87 U	< 0.92 UJ	< 0.57 U	< 0.6 U	< 4.7 UJ	< 4.6 UJ	2
MC1-J10	0	N	6/30/2008	< 0.045 U	< 0.1 U	< 0.017 U	< 0.041 U	< 0.087 U	< 0.074 U	< 0.57 UJ	< 0.95 UJ	0.24

TABLE B-3
SOIL DIOXINS/FURANS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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				Dioxins/Furans								
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	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	OCDF	OCDD	TCDD TEQ
MC1-J10	3	N	6/30/2008	< 0.011 U	< 0.077 U	< 0.011 U	< 0.017 U	< 0.016 U	< 0.078 U	< 0.84 UJ	< 0.1 UJ	0.23
MC1-J11	0	N	6/24/2008	< 0.55 U	< 0.84 UJ	< 0.61 U	< 0.57 U	< 0.28 U	< 0.33 U	< 1.1 U	< 4.6 U	1.1
MC1-J11	4	N	6/24/2008	< 0.37 U	< 0.64 U	< 0.45 U	< 0.39 U	< 0.24 U	< 0.26 U	< 1.5 U	< 1.5 U	0.88
MC1-J12	0	FD	6/25/2008	< 0.93 U	< 1.2 U	< 0.95 U	< 0.96 U	< 0.29 U	< 0.5 U	< 2.9 UJ	8.9 J	1.7
MC1-J12	0	N	6/25/2008	< 1.5 U	< 1.5 U	< 0.96 U	< 1.6 U	< 0.42 UJ	< 0.6 UJ	< 2.3 U	13 J	2.1
MC1-J13	0	N	6/25/2008	< 2.1 U	< 1.1 U	< 1 U	< 1.6 U	1.8	< 0.43 U	< 2.2 UJ	41 J	3
MC1-J14	0	N	6/25/2008	< 1.1 U	< 1.6 U	< 1.1 U	< 1.1 U	< 0.62 U	< 0.6 U	< 4 UJ	< 4.7 UJ	2.1
MC1-J15	0	FD	6/26/2008	< 0.13 U	< 0.31 U	< 0.17 U	< 0.14 U	< 0.4 U	< 0.18 U	< 2 U	< 1.4 U	0.49
MC1-J15	0	N	6/26/2008	< 0.081 U	< 0.22 U	< 0.12 U	< 0.081 U	< 0.29 U	< 0.13 U	< 1.1 U	< 0.43 U	0.38
MC1-J16	0	N	6/26/2008	< 0.1 U	< 0.21 U	< 0.15 U	< 0.1 U	< 0.33 U	< 0.099 U	< 1.9 UJ	< 1.2 UJ	0.38
MC1-J16	3	N	6/26/2008	< 0.1 U	< 0.17 U	< 0.1 U	< 0.1 U	< 0.29 U	< 0.11 U	< 0.59 U	< 0.38 U	0.34
MC1-J17	0	N	6/25/2008	< 0.75 U	< 1.1 U	< 0.94 U	< 0.78 U	< 0.46 U	< 0.4 U	< 2.5 UJ	< 3.4 UJ	1.6
MC1-J18	0	FD	7/7/2008	< 0.74 U	< 1.1 U	< 1.5 UJ	< 0.79 U	< 0.2 U	< 0.51 U	23 J	21 J	1.9
MC1-J18	0	N	7/7/2008	< 1.6 U	< 1.1 U	< 1.1 U	< 0.87 U	1.1	< 0.54 U	14 J	28 J	3.5
MC1-J19	0	N	7/7/2008	< 0.58 U	< 0.92 U	< 0.81 U	< 0.63 U	< 0.31 U	< 0.46 U	< 3.5 UJ	< 3.7 UJ	1.3
MC1-J19	4	N	7/7/2008	< 0.7 U	< 1.1 U	< 1.5 UJ	< 0.75 U	< 0.33 U	< 0.56 U	12 J	< 5.5 UJ	1.9
MC1-J20	0	N	7/7/2008	3 J	< 2.7 UJ	< 1.6 UJ	< 1.7 UJ	1.5	< 0.54 U	6.6 J	36 J	4.6

All units in pg/g.
-- = no sample data.
= Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-4
SOIL GENERAL CHEMISTRY/IONS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 3)

				General Chemistry/Ions												
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Ammonia	Bromide	Chlorate	Chloride	Cyanide (Total)	Fluoride	Nitrate (as N)	Nitrite (as N)	Orthophosphate as P	Perchlorate	Sulfate	Sulfide	Total Kjeldahl Nitrogen (TKN)
MC1-AV37	0	N	6/24/2008	3.1 J	< 0.26 U	< 0.54 U	17.7	< 0.081 U	< 0.1 U	1.7	< 0.021 U	< 0.51 U	0.0351 J	32.9	< 1.8 U	155
MC1-AV37	11	N	6/24/2008	1 J	< 0.26 U	2.8 J	69.9	< 0.082 U	1.1	4.2	< 0.21 U	< 0.52 U	0.224	33.8	< 1.8 U	143
MC1-AV38	0	FD	6/24/2008	< 0.78 U	< 0.25 U	< 0.53 U	5.1 J	< 0.079 U	< 0.1 U	6.9 J	< 0.02 U	23.8 J	0.0659 J	15 J	< 1.8 U	1240
MC1-AV38	0	N	6/24/2008	3.8 J	< 0.25 U	< 0.53 U	2.8 J	< 0.079 U	0.93 J	2.9 J	< 0.02 U	5.5 J	0.107 J	76.5 J	< 1.8 U	1250
MC1-AV38	11	N	6/24/2008	< 0.8 U	< 0.26 U	< 0.54 U	3.1	< 0.081 U	4.1	1.9	< 0.02 U	< 0.51 U	0.0152 J	163	< 1.8 U	149
MC1-AW36	0	N	7/7/2008	< 0.81 U	< 0.26 U	< 0.55 U	4.9	< 0.082 U	2.4	3.1	< 0.021 U	< 0.52 U	< 0.0429 U	146	< 1.8 U	61.3 J+
MC1-AW36	12	N	7/7/2008	< 0.83 U	< 0.27 U	< 0.56 U	16	< 0.084 U	3.2	5.7	< 0.021 U	< 0.53 U	0.0225 J	146	< 1.9 U	< 12.7 UJ
MC1-AW37	0	N	6/25/2008	< 0.83 U	< 0.27 U	< 0.56 U	0.77 J	< 0.084 U	1.7	0.8	< 0.021 U	< 0.53 U	0.126	24.7	< 1.9 U	< 12.8 U
MC1-AW37	10	N	6/25/2008	< 0.86 U	< 0.28 U	< 0.58 U	49.4	< 0.087 U	2.1	16.7	< 0.022 U	< 0.55 U	0.0214 J	83.2	< 2 U	57.3 J+
MC1-AW38	0	N	6/24/2008	< 0.8 U	< 0.26 U	< 0.54 U	3.2	< 0.081 U	2.4	1.9	< 0.021 U	7	0.0324 J	74	< 1.8 U	133
MC1-AW38	12	N	6/24/2008	< 0.81 U	< 0.26 U	< 0.55 U	11.4	< 0.082 U	0.94 J	24.1	< 0.021 U	< 0.52 U	0.0473	47.7	< 1.8 U	181
MC1-AW39	0	N	6/24/2008	2.1 J	< 0.25 U	< 0.54 U	46.8	< 0.08 U	< 0.1 U	12	< 0.2 U	< 0.51 U	0.133	25.4	< 1.8 U	306
MC1-AW39	12	N	6/24/2008	< 0.81 U	< 0.26 U	< 0.55 U	58.9	< 0.082 U	< 0.1 U	0.85	< 0.21 U	< 0.52 U	0.0464	583	135	113
MC1-AX36	0	N	6/30/2008	< 0.79 U	< 0.26 U	< 0.54 U	1.8 J	< 0.081 U	0.9 J	1.2	< 0.02 U	< 0.51 U	0.0416	42.4	< 1.8 U	198
MC1-AX36	3	N	6/30/2008	< 0.8 U	< 0.26 U	< 0.54 U	4.2	< 0.081 U	1.3	0.66	< 0.021 U	< 0.51 U	0.883	64.5	< 1.8 U	66.6
MC1-AX36	13	N	6/30/2008	< 0.9 U	< 0.29 U	2.3 J	315	< 0.091 U	2.4	3	< 0.23 U	< 0.58 U	0.187	135	< 2 U	< 13.9 U
MC1-AX37	0	N	6/26/2008	< 0.81 U	< 0.26 U	< 0.55 U	1.8 J	< 0.082 U	1	0.7	< 0.021 U	< 0.52 U	R	12.7	< 1.8 U	98.3
MC1-AX37	10	N	6/26/2008	< 0.84 U	< 0.27 U	< 0.57 U	1.3 J	< 0.085 U	1.5	0.71	< 0.022 U	< 0.54 U	R	45.4	< 1.9 U	68.6
MC1-AX38	0	N	6/25/2008	< 0.79 U	< 0.25 U	< 0.54 U	5	< 0.081 U	0.75 J	1.1	< 0.02 U	< 0.51 U	0.0433	44.7	< 1.8 U	132 J+
MC1-AX38	11	N	6/25/2008	< 0.82 U	< 0.26 U	1.5 J	115	< 0.083 U	1.3	1.2	< 0.21 U	< 0.53 U	0.172	6830	< 1.9 U	< 12.6 UJ
MC1-AX39	0	N	6/23/2008	< 0.78 U	< 0.25 U	< 0.53 U	4	< 0.08 U	0.84 J	6.7	< 0.02 U	< 0.5 U	< 0.041 U	63.8	< 1.8 U	540 J+
MC1-AX39	3	N	6/23/2008	< 0.8 U	< 0.26 U	< 0.54 U	294	< 0.082 U	1.3	10.9	< 0.21 U	< 0.52 U	0.105	88.6	< 1.8 U	138 J+
MC1-AX39	13	N	6/23/2008	< 0.81 U	< 0.26 U	< 0.55 U	30.4	< 0.083 U	0.98 J	0.3	< 0.021 U	< 0.52 U	0.0392 J	25	< 1.9 U	< 12.5 UJ
MC1-AX40	0	N	6/23/2008	0.83 J	1.4 J	< 0.54 U	544	< 0.08 U	1.1	168	< 1 U	< 0.51 U	0.333	618	< 1.8 U	152 J+
MC1-AX40	5	N	6/23/2008	< 0.79 U	1.9 J	< 0.54 U	582	< 0.08 U	0.94 J	185	< 1 U	< 0.51 U	0.167	82.2	< 1.8 U	61.2 J+
MC1-AX40	15	N	6/23/2008	< 0.81 U	< 0.26 U	< 0.55 U	81.8	< 0.082 U	1.3	0.75	< 0.21 U	< 0.52 U	< 0.0421 U	192	< 1.8 U	< 12.5 UJ
MC1-AY36	0	FD	7/1/2008	< 0.78 U	< 0.25 U	< 0.53 U	5.1	< 0.08 U	< 0.1 U	2.6	< 0.02 U	< 0.5 U	0.311 J	22.6	< 1.8 U	221
MC1-AY36	0	N	7/1/2008	1.5 J	< 0.25 U	< 0.53 U	7.9	< 0.079 U	< 0.1 U	4	< 0.02 U	< 0.5 U	0.553 J	33.6	< 1.8 U	158
MC1-AY36	3	N	7/1/2008	< 0.86 U	0.68 J	< 0.58 U	666	< 0.087 U	1.1	61.8	< 0.44 U	< 0.55 U	3.65 J-	221	< 2 U	91.1
MC1-AY36	13	N	7/1/2008	< 0.88 U	< 0.28 U	3.5 J	186	< 0.089 U	< 0.11 U	5.4	< 0.22 U	< 0.56 U	1.74 J-	78.9	< 2 U	69.1
MC1-AY37	0	N	7/7/2008	< 0.78 U	< 0.25 U	< 0.53 U	5.5	< 0.08 U	0.84 J	4.3	< 0.02 U	< 0.5 U	0.394 J-	42.8	< 1.8 U	132 J+
MC1-AY37	4	N	7/7/2008	< 0.81 U	2.7	6.2	1140	< 0.082 U	2.5	15.1	< 1 U	< 0.52 U	4.18 J-	197	< 1.8 U	89.4 J+
MC1-AY37	14	N	7/7/2008	< 0.81 U	< 0.26 U	< 0.55 U	132	< 0.082 U	2.9	1.8	< 0.21 U	< 0.52 U	1.05 J-	296	< 1.8 U	< 12.5 UJ
MC1-AY38	0	N	7/7/2008	< 0.8 U	< 0.26 U	< 0.54 U	3.5	< 0.082 U	1.1	1.9	< 0.021 U	< 0.52 U	0.305 J-	15.5	< 1.8 U	203 J+
MC1-AY38	11	N	7/7/2008	< 0.81 U	< 0.26 U	2.2 J	259	< 0.082 U	1.4	1.7	< 0.21 U	< 0.52 U	0.567 J-	713	< 1.8 U	151 J+
MC1-AY39	0	FD	7/7/2008	< 0.8 U	< 0.26 U	< 0.54 U	306 J	< 0.081 U	1.7	2.6 J	< 0.2 U	< 0.51 U	0.235 J-	6740 J	< 1.8 U	76.1 J+
MC1-AY39	0	N	7/7/2008	< 0.8 U	< 0.26 U	< 0.54 U	38.8 J	< 0.081 U	2.3	1.3 J	< 0.02 U	< 0.51 U	0.248 J-	157 J	< 1.8 U	47.3 J+
MC1-AY39	11	N	7/7/2008	< 0.89 U	< 0.28 U	13.2	1130	< 0.09 U	3.4	7.3	< 1.1 U	< 0.57 U	0.643 J-	317	< 2 U	97.4 J+
MC1-AZ36	0	N	6/30/2008	< 0.79 U	< 0.25 U	< 0.54 U	6.4	0.096 J	0.55 J	1.3	< 0.02 U	< 0.51 U	0.0227 J	20.7	< 1.8 U	85

TABLE B-4
SOIL GENERAL CHEMISTRY/IONS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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				General Chemistry/Ions												
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Ammonia	Bromide	Chlorate	Chloride	Cyanide (Total)	Fluoride	Nitrate (as N)	Nitrite (as N)	Orthophosphate as P	Perchlorate	Sulfate	Sulfide	Total Kjeldahl Nitrogen (TKN)
MC1-AZ36	3	N	6/30/2008	< 0.81 U	< 0.26 U	< 0.55 U	2.9	< 0.082 U	1	0.72	< 0.021 U	< 0.52 U	0.227	18.3	< 1.8 U	71.5
MC1-AZ36	13	N	6/30/2008	< 0.82 U	< 0.26 U	1.4 J	50.6	< 0.083 U	< 0.11 U	2	< 0.21 U	< 0.53 U	0.0853	2430	< 1.9 U	< 12.6 U
MC1-AZ37	0	N	6/30/2008	< 0.79 U	< 0.25 U	< 0.54 U	3.5	< 0.08 U	1.1	3	< 0.02 U	< 0.51 U	0.175	29.5	< 1.8 U	208
MC1-AZ37	12	N	6/30/2008	< 0.81 U	2.3 J	6.4	830	< 0.082 U	1.3	8	< 1 U	< 0.52 U	2.03	1090	< 1.8 U	149
MC1-BA36	0	N	6/30/2008	< 0.79 U	< 0.25 U	< 0.54 U	3.3	< 0.08 U	< 0.1 U	1.7	< 0.02 U	< 0.51 U	0.579	29.3	< 1.8 U	112
MC1-BA36	12	N	6/30/2008	< 0.87 U	6.5	< 0.59 U	2230	< 0.088 U	0.83 J	33.8	< 2.2 U	< 0.56 U	5.58	574	< 2 U	115
MC1-J01	0	FD	6/30/2008	< 0.85 U	< 0.27 U	< 0.58 U	6.2 J	< 0.087 U	0.92 J	8.9 J	< 0.022 U	< 0.55 U	0.0843 J	108	< 1.9 U	192
MC1-J01	0	N	6/30/2008	< 0.83 U	< 0.26 U	< 0.56 U	2 J	< 0.084 U	0.75 J	2.7 J	< 0.021 U	< 0.53 U	0.0204 J	81.1	< 1.9 U	153
MC1-J01	3	N	6/30/2008	< 0.9 U	< 0.29 U	< 0.61 U	14.1	< 0.091 U	1.2	14.5	< 0.023 U	< 0.58 U	0.0495	178	< 2 U	61.6
MC1-J01	13	N	6/30/2008	< 0.82 U	< 0.26 U	< 0.55 U	36.2	< 0.083 U	0.83 J	8.4	< 0.021 U	< 0.52 U	0.303	61.7	< 1.9 U	60.3
MC1-J02	0	FD	6/26/2008	< 0.8 U	< 0.26 U	< 0.54 U	2.3 J	< 0.081 U	0.53 J	1.9 J	< 0.02 U	< 0.51 U	0.227 J	22	< 1.8 U	155 J
MC1-J02	0	N	6/26/2008	< 0.79 U	< 0.25 U	< 0.53 U	18.3 J	< 0.08 U	0.75 J	11.4 J	< 0.02 U	< 0.51 U	0.593 J	32.1	< 1.8 U	519 J
MC1-J02	8	N	6/26/2008	< 0.8 U	< 0.26 U	< 0.54 U	71.4	< 0.081 U	0.87 J	24.4	< 0.21 U	1.8 J	1.71 J-	30.8	< 1.8 U	81.3
MC1-J02	18	N	6/26/2008	< 0.81 U	< 0.26 U	1.7 J	69.9	< 0.082 U	1.6	1.8	< 0.21 U	< 0.52 U	0.621 J-	54.1	< 1.8 U	69.1
MC1-J03	0	N	6/26/2008	< 0.79 U	< 0.25 U	< 0.53 U	1.5 J	< 0.08 U	0.45 J	0.85	< 0.02 U	1.4 J	0.104 J-	6	< 1.8 U	118
MC1-J03	6	N	6/26/2008	< 0.8 U	1.3 J	< 0.54 U	450	< 0.081 U	< 0.1 U	21.7	< 0.21 U	< 0.51 U	1.94 J-	44.1	< 1.8 U	95.7
MC1-J03	16	N	6/26/2008	< 0.9 U	< 0.29 U	4.4 J	480	< 0.091 U	1.8	3.2	< 0.23 U	< 0.58 U	0.247 J-	243	< 2 U	76.4
MC1-J04	0	N	6/26/2008	< 0.79 U	< 0.25 U	< 0.54 U	2	< 0.08 U	0.77 J	1.1	< 0.02 U	1.2 J	0.293 J-	14.2	< 1.8 U	112
MC1-J04	8	N	6/26/2008	< 0.8 U	< 0.26 U	< 0.54 U	132	< 0.081 U	1.6	19.1	< 0.21 U	< 0.51 U	0.513 J-	75.4	< 1.8 U	110
MC1-J04	18	N	6/26/2008	< 0.81 U	< 0.26 U	< 0.55 U	115	< 0.082 U	2.2	7.8	< 0.21 U	< 0.52 U	0.208 J-	56.9	< 1.8 U	77.8
MC1-J05	0	N	7/1/2008	< 0.82 U	< 0.26 U	< 0.56 U	3.1	< 0.084 U	1.2	2	< 0.021 U	< 0.53 U	0.0772 J-	10.8	< 1.9 U	186
MC1-J05	9	N	7/1/2008	< 0.85 U	< 0.27 U	10.1	500	< 0.086 U	1.4	17.1	< 0.43 U	< 0.54 U	1.2 J-	272	< 1.9 U	80.5
MC1-J06	0	N	6/25/2008	< 0.79 U	< 0.25 U	< 0.54 U	2.6	< 0.08 U	< 0.1 U	1.1	< 0.02 U	< 0.51 U	0.292	85.1	< 1.8 U	137 J+
MC1-J06	8	N	6/25/2008	< 0.8 U	< 0.26 U	4.4 J	242	< 0.081 U	1.2	9.3	< 0.21 U	< 0.51 U	1.72	57.5	< 1.8 U	146 J+
MC1-J06	18	N	6/25/2008	< 0.81 U	< 0.26 U	< 0.55 U	58.3	< 0.082 U	2	2.6	< 0.21 U	< 0.52 U	0.15	94.8	< 1.8 U	52.1 J+
MC1-J07	0	N	6/23/2008	< 0.81 U	< 0.26 U	< 0.55 U	6.9	< 0.082 U	1.6	1.5	< 0.021 U	< 0.52 U	0.119	49.8	< 1.8 U	163 J+
MC1-J07	8	N	6/23/2008	3.8 J	< 0.26 U	< 0.55 U	53.8	< 0.082 U	< 0.1 U	41	< 0.21 U	< 0.52 U	< 0.0413 U	41.5	< 1.8 U	91.4 J+
MC1-J07	18	N	6/23/2008	< 0.81 U	< 0.26 U	< 0.55 U	18.4	< 0.082 U	0.62 J	0.31	< 0.021 U	< 0.52 U	< 0.0413 U	63.9	< 1.8 U	< 12.4 UJ
MC1-J08	0	FD	6/23/2008	2.1 J	< 0.25 U	< 0.53 U	18.3 J	< 0.08 U	0.77 J	8.9 J	< 0.02 U	5.3	0.29 J	128 J	< 1.8 U	274 J
MC1-J08	0	N	6/23/2008	< 0.81 U	0.73 J	< 0.55 U	380 J	< 0.082 U	0.74 J	59.6 J	< 0.21 U	< 0.52 U	0.0163 J	759 J	< 1.8 U	121 J
MC1-J08	9	N	6/23/2008	< 0.8 U	< 0.26 U	< 0.54 U	212	< 0.081 U	1.1	43.2	< 0.21 U	< 0.52 U	0.246	164	< 1.8 U	108 J+
MC1-J08	19	N	6/23/2008	1.1 J	< 0.26 U	< 0.55 U	48.8	< 0.082 U	< 0.1 U	0.29	< 0.21 U	< 0.52 U	0.109	75.5	< 1.8 U	213 J+
MC1-J09	0	N	6/24/2008	< 0.82 U	< 0.26 U	< 0.56 U	52.2	< 0.083 U	< 0.11 U	49.6	< 0.021 U	< 0.53 U	0.128	277	< 1.9 U	185
MC1-J09	10	N	6/24/2008	< 0.81 U	< 0.26 U	< 0.55 U	28.2	< 0.082 U	1.4	2.7	< 0.021 U	< 0.52 U	0.0482	79.8	< 1.8 U	174
MC1-J10	0	N	6/30/2008	< 0.83 U	< 0.27 U	< 0.56 U	1.2 J	< 0.084 U	< 0.11 U	0.47	< 0.021 U	< 0.53 U	< 0.0413 U	18.9	< 1.9 U	< 12.8 U
MC1-J10	3	N	6/30/2008	< 0.87 U	< 0.28 U	< 0.59 U	106	< 0.088 U	< 0.11 U	114	< 0.22 U	< 0.56 U	0.446	77.9	< 2 U	< 13.4 U
MC1-J10	13	N	6/30/2008	< 0.82 U	< 0.26 U	< 0.56 U	82.6	< 0.083 U	2.2	1.4	< 0.21 U	< 0.53 U	0.117	70.8	< 1.9 U	< 12.7 U
MC1-J11	0	N	6/24/2008	15.3 J-	< 0.26 U	< 0.55 U	18.9	< 0.082 U	5.7	19.1 J+	< 0.021 U	< 0.52 U	0.0619	72.5	< 1.8 U	175
MC1-J11	4	N	6/24/2008	< 0.83 U	< 0.27 U	< 0.57 U	38.5	< 0.085 U	< 0.11 U	56.8	< 0.021 U	< 0.54 U	0.215	63.8	150	137

TABLE B-4
SOIL GENERAL CHEMISTRY/IONS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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				General Chemistry/Ions												
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Ammonia	Bromide	Chlorate	Chloride	Cyanide (Total)	Fluoride	Nitrate (as N)	Nitrite (as N)	Orthophosphate as P	Perchlorate	Sulfate	Sulfide	Total Kjeldahl Nitrogen (TKN)
MC1-J11	14	N	6/24/2008	2.3 J	< 0.26 U	< 0.54 U	51	< 0.081 U	0.98 J	7.7	< 0.21 U	< 0.52 U	0.0842	52.1	< 1.8 U	114
MC1-J12	0	FD	6/25/2008	< 0.83 U	< 0.27 U	< 0.56 U	1 J	< 0.084 U	< 0.11 U	0.31	< 0.021 U	< 0.53 U	0.033 J	2.3 J	< 1.9 U	120 J
MC1-J12	0	N	6/25/2008	< 0.81 U	< 0.26 U	< 0.55 U	1 J	< 0.082 U	< 0.1 U	0.52	< 0.021 U	< 0.52 U	< 0.0422 U	3.7 J	< 1.8 U	229 J
MC1-J12	11	N	6/25/2008	< 0.82 U	< 0.26 U	< 0.56 U	37.4	0.088 J	1 J	0.81	< 0.021 U	< 0.53 U	0.0717	39.1	< 1.9 U	19.3 J+
MC1-J13	0	N	6/25/2008	< 0.81 U	< 0.26 U	< 0.55 U	1.5 J	0.092 J	1.3	2.1	< 0.021 U	< 0.52 U	0.0164 J	91.2	< 1.8 U	< 12.5 UJ
MC1-J13	12	N	6/25/2008	< 0.82 U	< 0.26 U	< 0.56 U	37.6	0.11 J	1.4	9.3	< 0.021 U	< 0.53 U	0.077	91.4	< 1.9 U	< 12.7 UJ
MC1-J14	0	N	6/25/2008	< 0.8 U	< 0.26 U	< 0.54 U	0.99 J	< 0.081 U	6.2	1.4	< 0.02 U	< 0.51 U	< 0.0419 U	6.9	< 1.8 U	< 12.3 UJ
MC1-J14	12	N	6/25/2008	< 0.83 U	< 0.27 U	< 0.56 U	15.5	< 0.084 U	2.2	10.8	< 0.021 U	< 0.53 U	0.0699	211	< 1.9 U	102 J+
MC1-J15	0	FD	6/26/2008	< 0.8 U	< 0.26 U	1.4 J	2.2	< 0.081 U	1.3	2.5 J	< 0.02 U	< 0.51 U	R	31.8	< 1.8 U	57.9
MC1-J15	0	N	6/26/2008	< 0.85 U	< 0.27 U	< 0.57 U	0.83 J	< 0.086 U	2	0.85 J	< 0.022 U	< 0.54 U	R	33.1	< 1.9 U	97.7
MC1-J15	11	N	6/26/2008	< 0.86 U	< 0.28 U	< 0.58 U	35.8	< 0.087 U	1.4	24	< 0.022 U	< 0.55 U	0.219 J-	88.1	< 2 U	94.8
MC1-J16	0	N	6/26/2008	< 0.81 U	< 0.26 U	< 0.55 U	1.4 J	< 0.082 U	1.1	0.87	< 0.021 U	< 0.52 U	R	58.7	< 1.8 U	105
MC1-J16	3	N	6/26/2008	< 0.82 U	< 0.26 U	< 0.56 U	3.6	< 0.084 U	1.4	1.3	< 0.021 U	< 0.53 U	0.0482 J-	68.5	< 1.9 U	81
MC1-J16	13	N	6/26/2008	< 0.84 U	< 0.27 U	< 0.57 U	88.9	< 0.085 U	1.7	2.2	< 0.22 U	< 0.54 U	0.262 J-	68	< 1.9 U	51.2 J
MC1-J17	0	N	6/25/2008	< 0.82 U	< 0.26 U	< 0.56 U	1 J	< 0.084 U	1.1	0.62	< 0.021 U	< 0.53 U	0.0159 J	35.7	< 1.9 U	117 J+
MC1-J17	10	N	6/25/2008	< 0.83 U	< 0.27 U	2.4 J	186	< 0.085 U	< 0.11 U	1.9	< 0.21 U	< 0.54 U	0.729	81.2	< 1.9 U	< 12.9 UJ
MC1-J18	0	FD	7/7/2008	< 0.82 U	< 0.26 U	< 0.55 U	7.7 J	< 0.083 U	1.5	2.4 J	< 0.021 U	< 0.53 U	< 0.0429 U	78.2	< 1.9 U	54.4 J+
MC1-J18	0	N	7/7/2008	< 0.85 U	< 0.27 U	< 0.57 U	2.7 J	< 0.086 U	1.8	1.2 J	< 0.022 U	< 0.54 U	< 0.0422 U	119	< 1.9 U	55 J+
MC1-J18	12	N	7/7/2008	< 0.82 U	< 0.26 U	< 0.56 U	3.5	< 0.083 U	2.3	1.9	< 0.021 U	< 0.53 U	0.0207 J	155	< 1.9 U	61.3 J+
MC1-J19	0	N	7/7/2008	< 0.86 U	< 0.27 U	< 0.58 U	1.4 J	< 0.087 U	1.7	1	< 0.022 U	< 0.55 U	< 0.0426 U	127	< 1.9 U	< 13.2 UJ
MC1-J19	4	N	7/7/2008	< 0.82 U	< 0.26 U	< 0.56 U	11.3	< 0.083 U	3.1	3.6	< 0.021 U	< 0.53 U	0.283	198	< 1.9 U	< 12.7 UJ
MC1-J19	14	N	7/7/2008	< 0.82 U	< 0.26 U	1.8 J	96.8	< 0.084 U	4	1.7	< 0.21 U	< 0.53 U	2.82	203	< 1.9 U	< 12.7 UJ
MC1-J20	0	N	7/7/2008	< 0.79 U	< 0.25 U	< 0.53 U	12.9	0.11 J	0.98 J	8.7	< 0.02 U	8.6	0.0162 J-	41.8	< 1.8 U	109 J+
MC1-J20	10	N	7/7/2008	< 0.8 U	< 0.26 U	< 0.55 U	12.6	< 0.082 U	3.1	0.22	< 0.021 U	< 0.52 U	< 0.0412 UJ	115	196	84.1 J+

All units in mg/kg.
-- = no sample data.

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Metals												
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Chromium (VI)	Cobalt	Copper	Iron
MC1-AV37	0	N	6/24/2008	8680 J	< 0.126 UJ	6.2	388	0.51	< 6.6 U	0.11	23600 J	16 J	< 1 U	6.3 J-	13.1 J	11800 J
MC1-AV37	11	N	6/24/2008	8640 J	< 0.126 UJ	6.5	617	0.44	< 6.6 U	0.058 J	21400 J	9.2 J	< 1 U	4.7 J-	9.4 J	8250 J
MC1-AV38	0	FD	6/24/2008	8470 J	< 0.126 UJ	6.9	564	0.54 J	< 6.6 U	0.24	15200 J	76.9 J	5.9 J	6.6 J-	19.1 J	11400 J
MC1-AV38	0	N	6/24/2008	8030 J	< 0.126 UJ	6.1	410	0.76 J	< 6.6 U	0.29	45600 J	139 J	2.4 J	8.9 J-	36 J	9810 J
MC1-AV38	11	N	6/24/2008	6740 J	< 0.126 UJ	9.8	957	0.44	7.2 J	0.16	33700 J	11 J	< 1 U	5.4 J-	14.3 J	8760 J
MC1-AV38C	0	N	1/6/2009	9650 J	< 0.315 UJ	4.4 J	469	0.57	< 16.5 U	0.18 J+	8110 J	324 J+	0.87	5.1	33.2 J+	9100 J
MC1-AW36	0	N	7/7/2008	8540	< 0.315 UJ	4.6 J	546	0.43 J	< 16.5 U	< 0.1 U	10800	15.7 J+	0.53 J	5	10.5	9650
MC1-AW36	12	N	7/7/2008	4940	< 0.126 UJ	4.9	379	0.27	< 6.6 U	< 0.04 U	9730	83.7 J+	< 1.1 U	3.4	18.5	13400
MC1-AW37	0	N	6/25/2008	7650	< 0.126 UJ	6.4	656	0.69	< 6.6 U	0.15	26000	8.7	0.69 J	7.7	9.8	6760
MC1-AW37	10	N	6/25/2008	7480	< 0.126 UJ	5.9	609	0.45	< 6.6 U	0.11	19600	8.7	< 1.2 U	3.8	7.5	7200
MC1-AW38	0	N	6/24/2008	8780 J	< 0.126 UJ	5.6	483	0.7	< 6.6 U	0.14	7010 J	128 A	4.1	5.3 J-	44.9 J	7700 J
MC1-AW38	0	N	6/24/2008	--	--	--	--	--	--	--	--	182 J	--	--	--	--
MC1-AW38	0	N	6/24/2008	--	--	--	--	--	--	--	--	73.4 ReA	--	--	--	--
MC1-AW38	12	N	6/24/2008	5330 J	< 0.126 UJ	8	436	0.35	< 6.6 U	0.059 J	15900 J	9.2 J	< 1.1 U	5.4 J-	12.9 J	8760 J
MC1-AW39	0	N	6/24/2008	9740 J	< 0.126 UJ	5.5	522	0.52	< 6.6 U	0.1 J	25600 J	10.6 J	1.2	4.8 J-	15.7 J	9460 J
MC1-AW39	12	N	6/24/2008	6330 J	< 0.126 UJ	7.9	353	0.41	8.7 J+	0.086 J	19800 J	12 J	< 1 U	5.5 J-	12.5 J	9340 J
MC1-AW39	12	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AW39	12	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AX36	0	N	6/30/2008	8500	< 0.126 UJ	4.8	483 J+	0.49	< 6.6 U	0.066 J	21600	10.4 J-	< 1 U	4.9	12.2	7790
MC1-AX36	3	N	6/30/2008	7950	< 0.126 UJ	3.2	524 J+	0.42	< 6.6 U	0.044 J	12400	5.4 J-	0.72 J	3.9	8.2	5780
MC1-AX36	13	N	6/30/2008	6530	< 0.315 UJ	7.5	582 J+	0.41 J	< 16.5 U	< 0.1 U	51200	6.2 J-	< 1.1 U	5.8	14.5	6340
MC1-AX37	0	N	6/26/2008	7150	< 0.126 UJ	3.8	415 J	0.31	< 6.6 U	0.095	26600	8.3	< 1 U	4.2	8.7	8350 J
MC1-AX37	10	N	6/26/2008	8010	< 0.126 UJ	4.8	482 J	0.38	< 6.6 U	0.056	16900	6.4	< 1.2 U	3.4	7.4	7840 J
MC1-AX38	0	N	6/25/2008	7980	< 0.126 UJ	5.3	468	0.45	< 6.6 U	0.12	23200	8.9	< 1.1 U	4.3	10.3	8140
MC1-AX38	11	N	6/25/2008	7710	< 0.126 UJ	7	478	0.45	< 6.6 U	0.077 J	42300	7.1	< 1.1 U	3.9	7.9	6460
MC1-AX39	0	N	6/23/2008	7890 J	< 0.126 UJ	3.6	440	0.43	< 6.6 U	< 0.04 U	23200 J	8.3	< 1 U	4.5	9.7	7570 J
MC1-AX39	3	N	6/23/2008	7370 J	< 0.126 UJ	6.2	432	0.38	< 6.6 U	< 0.04 U	21800 J	7.8	0.63 J	4.4	9.4	7740 J
MC1-AX39	13	N	6/23/2008	5610 J	< 0.126 UJ	7.1	447	0.28	< 6.6 U	< 0.04 U	38200 J	6	< 1 U	3.8	8.2	6300 J
MC1-AX40	0	N	6/23/2008	12600 J	< 0.063 UJ	5.9	427	0.64	< 3.3 U	0.15	20100 J	13.6	< 1 U	6.5	15.9	12300 J
MC1-AX40	5	N	6/23/2008	6140 J	< 0.126 UJ	9.85 A	446	0.4	< 6.6 U	< 0.04 U	24400 J	5.8	0.45 J	3	7.2	6290 J
MC1-AX40	5	N	6/23/2008	--	--	13.2	--	--	--	--	--	--	--	--	--	--
MC1-AX40	5	N	6/23/2008	--	--	6.5 ReA	--	--	--	--	--	--	--	--	--	--
MC1-AX40	15	N	6/23/2008	5370 J	< 0.126 UJ	4.7	329	0.28	< 6.6 U	< 0.04 U	20600 J	6	< 1.1 U	3.4	10.1	5580 J
MC1-AY36	0	FD	7/1/2008	8710	< 0.126 UJ	7.4	635	0.48	< 6.6 U	0.14	20300	23 J	0.64 J	5.8	14.2 J-	8650
MC1-AY36	0	N	7/1/2008	8580	< 0.126 UJ	6.1	639	0.43	< 6.6 U	0.11	20500	13.5 J	0.94 J	5	11.4 J-	7830
MC1-AY36	3	N	7/1/2008	7860	< 0.126 UJ	4.6	593	0.34	< 6.6 U	0.05 J	23600	5.9 J-	0.57 J	3.7	6.9 J-	6100
MC1-AY36	13	N	7/1/2008	6670	< 0.126 UJ	4.3	413	0.33	< 6.6 U	< 0.04 U	30100	8.1 J-	< 1.1 U	3	6.5 J-	5660
MC1-AY36C	0	N	1/6/2009	8830 J	< 0.315 UJ	5.4	427	0.48 J	< 16.5 U	< 0.1 U	19900 J	6.4 J+	< 0.1 U	4.1	10 J+	7460 J
MC1-AY37	0	N	7/7/2008	6900	< 0.126 UJ	4.9	377	0.34	< 6.6 U	< 0.04 U	24900	9 J+	0.61 J	4.3	9.7	8600
MC1-AY37	4	N	7/7/2008	6710	< 0.126 UJ	7.8	493	0.35	< 6.6 U	< 0.04 U	47700	8.7 J+	< 1 U	3.8	8	7010

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Metals												
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Chromium (VI)	Cobalt	Copper	Iron
MC1-AY37	14	N	7/7/2008	7940	< 0.126 UJ	5.7	580	0.4	< 6.6 U	< 0.04 U	12800	9.8 J+	< 1 U	3.6	8.7	8210
MC1-AY38	0	N	7/7/2008	9580	< 0.315 UJ	4.8 J	484	0.4 J	< 16.5 U	< 0.1 U	71600	10.5 J+	< 1 U	4	9.2	8230
MC1-AY38	11	N	7/7/2008	6960	< 0.1575 UJ	5.6	523	0.37	< 8.25 U	< 0.05 U	58300	11.5 J+	< 1 U	3.9	9.3	6710
MC1-AY39	0	FD	7/7/2008	9430	< 0.126 UJ	5.8	550	0.52	< 6.6 U	0.12	24500	12.9 J+	< 1 U	5.4	12.2	11200
MC1-AY39	0	N	7/7/2008	9950	< 0.126 UJ	4.8	559	0.48	< 6.6 U	< 0.04 U	15900	10.7 J+	0.57 J	5.1	10.8	10500
MC1-AY39	11	N	7/7/2008	7450	< 0.315 UJ	9.9	288	0.4 J	< 16.5 U	< 0.1 U	70600	17.7 J+	< 1.1 U	3.7	11	7780
MC1-AZ36	0	N	6/30/2008	7190	< 0.126 UJ	5.4	497 J+	0.41	< 6.6 U	0.1	16900	13.2 J-	< 1.1 U	5	10.3	6580
MC1-AZ36	3	N	6/30/2008	9210	< 0.126 UJ	4.9	426 J+	0.53	< 6.6 U	0.047 J	22000	9.5 J-	< 1 U	5.1	9.2	8090
MC1-AZ36	13	N	6/30/2008	6500	< 0.126 UJ	5.9	293 J+	0.39	< 6.6 U	0.048 J	28500	7.7 J-	< 1 U	4.1	9.4	5120
MC1-AZ37	0	N	6/30/2008	9340	< 0.126 UJ	4.4	443 J+	0.53	< 6.6 U	0.071 J	25900	9.6 J-	< 1 U	4.8	11.4	8810
MC1-AZ37	12	N	6/30/2008	6760	< 0.126 UJ	5.5	255 J+	0.42	< 6.6 U	< 0.04 U	19600	6.4 J-	< 1.1 U	3.1	7	5380
MC1-BA36	0	N	6/30/2008	6690	< 0.126 UJ	4	394 J+	0.39	< 6.6 U	0.055 J	17300	9.2 J-	< 1 U	4.5	9.3	7380
MC1-BA36	12	N	6/30/2008	7390	< 0.126 UJ	5.3	443 J+	0.46	< 6.6 U	0.049 J	27800	7.1 J-	< 1.1 U	3.2	11	5650
MC1-J01	0	FD	6/30/2008	8540	< 0.315 UJ	4.1 J	519 J+	0.54 J	< 16.5 U	< 0.1 U	16700 J	12.3 J-	0.7 J	6.1 J	13.9 J	7340
MC1-J01	0	N	6/30/2008	7100	< 0.315 UJ	4.1 J	439 J+	0.42 J	< 16.5 U	< 0.1 U	34400 J	11.8 J-	0.85 J	3.2 J	7.2 J	5390
MC1-J01	3	N	6/30/2008	7890	< 0.126 UJ	4.8	556 J+	0.45	< 6.6 U	< 0.04 U	20100	10.6 J-	< 1.1 U	4.5	10.6	6150
MC1-J01	13	N	6/30/2008	7540	< 0.126 UJ	6.1	591 J+	0.4	< 6.6 U	< 0.04 U	22500	6.2 J-	< 1.1 U	3.1	8.2	5520
MC1-J02	0	FD	6/26/2008	7920	< 0.126 UJ	3.7 J	533 J	0.38	< 6.6 U	0.076	18000	7.6 J	< 1.1 U	4	8.7	7940 J
MC1-J02	0	N	6/26/2008	8410	1.1 J-	6.5 J	796 J	0.36	< 6.6 U	0.15	23900	24.6 J	1.4	4.6	12.4	9800 J
MC1-J02	8	N	6/26/2008	8010	< 0.126 UJ	4	386 J	0.34	< 6.6 U	0.078	17100	6.6	< 1 U	3.9	13.2	9890 J
MC1-J02	18	N	6/26/2008	7400	< 0.126 UJ	4.8	457 J	0.37	< 6.6 U	0.061	41500	7.3	< 1.1 U	3.9	8.1	8740 J
MC1-J03	0	N	6/26/2008	7860	< 0.126 UJ	5.4	436 J	0.42	< 6.6 U	0.11	21300	8.4	0.45 J	4.1	10.1	10600 J
MC1-J03	6	N	6/26/2008	8390	< 0.126 UJ	5.3	486 J	0.36	< 6.6 U	0.095	21300	9.7	< 1.2 U	4	15	10300 J
MC1-J03	16	N	6/26/2008	10300	< 0.126 UJ	6.3	448 J	0.41	< 6.6 U	0.066	35500	4.5	< 1.1 U	2.6	8.6	7340 J
MC1-J04	0	N	6/26/2008	7930	< 0.126 UJ	3.9	402 J	0.33	< 6.6 U	0.059	14900	9.9	< 1 U	4	7.9	9410 J
MC1-J04	8	N	6/26/2008	8180	< 0.126 UJ	4.3	584 J	0.46	< 6.6 U	0.15	21600	9.2	< 1.1 U	4.2	9.2	9290 J
MC1-J04	18	N	6/26/2008	8160	< 0.126 UJ	5.4	244 J	0.34	< 6.6 U	0.078	34300	5.5	< 1.1 U	3	6.7	7590 J
MC1-J05	0	N	7/1/2008	7010	< 0.315 UJ	8.9	716	1	< 16.5 U	< 0.1 U	12200	16.5 J-	1.2	6.3	16.1 J-	6600
MC1-J05	9	N	7/1/2008	4870	< 0.315 UJ	9.5	299	0.28 J	< 16.5 U	< 0.1 U	45700	8.1 J-	< 1.1 U	3.2	6.2 J-	4050
MC1-J06	0	N	6/25/2008	7460	< 0.126 UJ	4.6	491	0.41	< 6.6 U	0.075 J	20200	9	0.66 J	4	9.5	7930
MC1-J06	8	N	6/25/2008	7490	< 0.126 UJ	5.5	618	0.44	< 6.6 U	0.079 J	32000	9.7	< 1 U	4.4	9.8	8020
MC1-J06	18	N	6/25/2008	6570	< 0.126 UJ	8.4	736	0.4	< 6.6 U	0.056 J	39900	11.3	0.85 J	3.9	9.7	7860
MC1-J07	0	N	6/23/2008	8800 J	< 0.126 UJ	5.1	463	0.47	< 6.6 U	0.11	24200 J	10.4	0.47 J	5.5	10.7	9690 J
MC1-J07	8	N	6/23/2008	7680 J	< 0.126 UJ	5.4	443	0.38	< 6.6 U	< 0.04 U	15300 J	7.7	< 1 U	4.3	7.9	7180 J
MC1-J07	18	N	6/23/2008	6310 J	< 0.126 UJ	6.5	482	0.36	< 6.6 U	< 0.04 U	20400 J	6.8	< 1 U	4	10.1	7790 J
MC1-J08	0	FD	6/23/2008	8990 J	< 0.126 UJ	4.6	486	0.45	< 6.6 U	< 0.04 U	17700 J	9.8	< 1.1 U	4.6	8.6 J	7630 J
MC1-J08	0	N	6/23/2008	8250 J	< 0.126 UJ	6.9	521	0.44	< 6.6 U	< 0.04 U	21200 J	8.9	< 1 U	4.3	18.7 J	8020 J
MC1-J08	9	N	6/23/2008	7160 J	< 0.126 UJ	5.4	523	0.4	< 6.6 U	< 0.04 U	40900 J	8.9	0.58 J	3.9	11	7400 J
MC1-J08	19	N	6/23/2008	6730 J	< 0.126 UJ	6.3	783	0.37	< 6.6 U	< 0.04 U	26000 J	7.6	< 1 U	4.3	14.3	6950 J
MC1-J09	0	N	6/24/2008	10400 J	< 0.126 UJ	4.7	565	0.55	7.5 J	0.066 J	14000 J	11.5 J	< 1 U	4.9 J-	10.7 J	9550 J

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Metals												
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Chromium (VI)	Cobalt	Copper	Iron
MC1-J09	10	N	6/24/2008	9080 J	< 0.126 UJ	6.9	731	0.53	< 6.6 U	0.053 J	19500 J	10.8 J	< 1 U	5.3 J-	10.4 J	9910 J
MC1-J10	0	N	6/30/2008	3970	< 0.126 UJ	5.9	178 J+	0.22	< 6.6 U	< 0.04 U	9310	6.9 J-	< 1.1 U	2.8	5.6	4100
MC1-J10	3	N	6/30/2008	7470	< 0.126 UJ	4.2	598 J+	0.38	< 6.6 U	0.057 J	15500	6 J-	< 1.1 U	2.4	5.1	4040
MC1-J10	13	N	6/30/2008	7930	< 0.126 UJ	7.1	447 J+	0.48	< 6.6 U	0.06 J	23700	8.6 J-	< 1.1 U	4.7	10.5	7080
MC1-J11	0	N	6/24/2008	7860 J	< 0.126 UJ	4.9	476	0.78	< 6.6 U	0.17	9810 J	234	0.63 J	6.9 J-	46.8 J	8070 J
MC1-J11	4	N	6/24/2008	9500 J	< 0.126 UJ	6.3	870	0.48	< 6.6 U	0.063 J	42900 J	7.4 J	< 1.1 U	4.6 J-	9.2 J	8210 J
MC1-J11	14	N	6/24/2008	6960 J	< 0.126 UJ	8.9	653	0.41	< 6.6 U	0.053 J	29300 J	9.2 J	< 1.2 U	4.6 J-	8.7 J	8820 J
MC1-J12	0	FD	6/25/2008	9070	< 0.126 UJ	5.8	641	0.51	< 6.6 U	0.13	17800	7.9 J	0.44 J	5.3	12.7	7500
MC1-J12	0	N	6/25/2008	8240	< 0.126 UJ	5.2	385	0.52	< 6.6 U	0.15	17700	15.9 J	0.76 J	5.3	11.9	10100
MC1-J12	11	N	6/25/2008	6850	< 0.126 UJ	6.6	765	0.4	< 6.6 U	0.045 J	13200	7.4	< 1.1 U	3.8	9.5	6860
MC1-J13	0	N	6/25/2008	6140	< 0.126 UJ	4.8	484	0.43	< 6.6 U	0.1 J	70100	9	0.67 J	5	9.4	5920
MC1-J13	12	N	6/25/2008	7720	< 0.126 UJ	7.1	430	0.46	< 6.6 U	0.059 J	39200	7.1	< 1.1 U	3.3	7.6	6700
MC1-J14	0	N	6/25/2008	6680	< 0.126 UJ	6.5	425	0.45	< 6.6 U	0.047 J	13100	6.4	1.4	3.4	10.5	7090
MC1-J14	12	N	6/25/2008	8070	< 0.126 UJ	6.7	546	0.44	< 6.6 U	0.048 J	25700	8.2	0.55 J	3.5	7.5	6420
MC1-J15	0	FD	6/26/2008	8300	< 0.126 UJ	< 1.89 U	465 J	0.4	< 6.6 U	0.23	19100	< 6.37 U	< 1.1 U	5.3 J	9.6	10400 J
MC1-J15	0	N	6/26/2008	6420	< 0.126 UJ	< 0.945 U	447 J	1.3	< 6.6 U	0.23	16700	14.6	< 1.1 U	14.6 J	13	6600 J
MC1-J15	11	N	6/26/2008	10300	< 0.126 UJ	6	502 J	0.37	< 6.6 U	0.057	25500	8.1	< 1.1 U	3.6	10.1	10800 J
MC1-J16	0	N	6/26/2008	8400	< 0.126 UJ	3.8	461 J	0.34	< 6.6 U	0.09	13600	7.2	< 1 U	3.9	8.3	8050 J
MC1-J16	3	N	6/26/2008	8340	< 0.126 UJ	5.1	254 J	0.37	< 6.6 U	0.081	23500	5.4	< 1 U	6.4	25.3	8420 J
MC1-J16	13	N	6/26/2008	8540	< 0.126 UJ	5.6	533 J	0.39	< 6.6 U	0.093	33400	7.8	< 1.1 U	3.8	7.9	10300 J
MC1-J17	0	N	6/25/2008	7450	< 0.126 UJ	6.6	423	0.38	< 6.6 U	0.073 J	15400	6.8	< 1.2 U	4.4	17	6890
MC1-J17	10	N	6/25/2008	5950	< 0.126 UJ	5.6	596	0.34	< 6.6 U	0.11 J	38200	8.8	< 1.2 U	3.7	8.8	6740
MC1-J18	0	FD	7/7/2008	7830	< 0.315 UJ	5.1 J	503	0.4 J	< 16.5 U	< 0.1 U	22200 J	13.9 J+	0.65 J	7.2	9.8	7030
MC1-J18	0	N	7/7/2008	9550	< 0.1575 UJ	4.8	769	0.47	< 8.25 U	< 0.05 U	9940 J	10.7 J+	0.82 J	5.1	10.6	9790
MC1-J18	12	N	7/7/2008	7350	< 0.126 UJ	7.3	605	0.43	< 6.6 U	< 0.04 U	24200	20 J+	0.45 J	4.3	8.7	7660
MC1-J19	0	N	7/7/2008	7860	< 0.126 UJ	4	592	0.39	< 6.6 U	< 0.04 U	13700	8.3 J+	0.42 J	3.7	8.3	7070
MC1-J19	4	N	7/7/2008	6420	< 0.126 UJ	5.2	493	0.33	< 6.6 U	< 0.04 U	26300	16 J+	< 1.1 U	3.9	11.3	7110
MC1-J19	14	N	7/7/2008	8000	< 0.126 UJ	6.5	602	0.39	< 6.6 U	< 0.04 U	24500	8.5 J+	< 1.1 U	4.4	10.2	8440
MC1-J20	0	N	7/7/2008	7450	< 0.126 UJ	6.6	528	0.4	< 6.6 U	0.16	22300	16.8 J+	< 1 U	4.8	11.4	9380
MC1-J20	10	N	7/7/2008	7220	< 0.126 UJ	7.4	323	0.43	< 6.6 U	< 0.04 U	35000	11.5 J+	< 1 U	5.4	9.7	7990
MC1-J21	0	N	1/6/2009	9090 J	< 0.315 UJ	4.7 J	407	0.51 J	< 16.5 U	< 0.1 U	18600 J	39.8 J+	0.6	5.2	13.8 J+	8610 J
MC1-J22	0	N	1/6/2009	9100 J	< 0.315 UJ	4.4 J	560	0.58	< 16.5 U	0.12 J+	7480 J	549 J+	1.7	4.6	49.8 J+	8090 J
MC1-J23	0	N	1/6/2009	9250 J	< 0.315 UJ	4.6 J	413	1.8	< 16.5 U	0.16 J+	28000 J	79.6 J+	1.9	15.5	25.2 J+	7990 J
MC1-J24	0	N	1/6/2009	9770 J	< 0.315 UJ	5.8	474	1.7	< 16.5 U	0.23 J+	19700 J	15.4 J+	1.9	17.3	12.6 J+	8750 J
MC1-J25	0	N	11/26/2008	12000	< 0.315 UJ	7.5	521	0.7	< 16.5 U	0.12 J+	16800	19.6 J+	--	6.3	15.9 J+	12900
MC1-J26	0	FD	11/26/2008	12000	< 0.315 UJ	5.8 J	453	0.73	< 16.5 U	0.17 J+	18500 J	44.8 J	--	7.1	19.4 J+	13100
MC1-J26	0	N	11/26/2008	10700	< 0.315 UJ	5.2 J	470	0.61	< 16.5 U	0.2 J+	48600 J	21.1 J	--	5.9	13.2 J+	10400
MC1-J27	0	N	11/26/2008	10800	< 0.315 UJ	5.4 J	335	0.64	< 16.5 U	0.18 J+	27900	35.7 J+	--	7.9	19.6 J+	14100
MC1-J28	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	0.55	--	--	--
MC1-J28	0	N	1/6/2009	9530 J	< 0.315 UJ	5.1 J	409	0.92	< 16.5 U	0.17 J+	7130 J	530 J+	--	6.7	98 J+	8410 J

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Metals												
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium (Total)	Chromium (VI)	Cobalt	Copper	Iron
MC1-J29	0	FD	1/6/2009	--	--	--	--	--	--	--	--	--	1.8 J	--	--	--
MC1-J29	0	FD	1/6/2009	7580 J	< 0.315 UJ	4.4 J	463	0.44 J	< 16.5 U	0.13 J+	4300 J	344 J+	--	3.8	27.8 J+	8890 J
MC1-J29	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	1.1 J	--	--	--
MC1-J29	0	N	1/6/2009	7400 J	< 0.315 UJ	4 J	492	0.42 J	< 16.5 U	< 0.1 U	4000 J	348 J+	--	4.1	28.9 J+	9560 J
MC1-J30	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	3.2	--	--	--
MC1-J30	0	N	1/6/2009	8410 J	< 0.315 UJ	5.3	373	1.4	< 16.5 U	< 0.1 U	3580 J	525 J+	--	11.7	92.8 J+	8090 J
MC1-J31	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	4.4	--	--	--
MC1-J31	0	N	1/6/2009	7860 J	< 0.315 UJ	7.6	438	0.97	< 16.5 U	< 0.1 U	4550 J	670 J+	--	5.4	55.5 J+	7890 J
MC2-AV38C	0	N	4/23/2009	12400 J	< 0.225 U	7.7 J+	283	0.53	< 2.99 U	< 0.04 UJ	20700 J	10.5 J	--	5.9	14 J	12900 J
MC2-J32	0	N	4/23/2009	12200 J	< 0.225 U	6.4 J+	573	0.78	< 2.99 U	< 0.04 UJ	14800 J	22.7 J	--	8.8	25.5 J	11400 J
MC2-J33	0	N	4/23/2009	11900 J	< 0.225 U	4.8 J+	376	0.63	< 2.99 U	< 0.04 UJ	21500 J	52.8 J	--	8.4	16.7 J	14500 J
MC2-J34	0	N	4/23/2009	12500 J	< 0.225 U	5.6 J+	514	1.5	< 2.99 U	< 0.04 UJ	7950 J	64 J	--	13.6	78.6 J	20900 J
MC2-J35	0	N	4/23/2009	8950 J	< 0.225 U	5.5 J+	381	0.6	< 2.99 U	< 0.04 UJ	4480 J	306 J	--	4.6	48.6 J	8720 J
MC2-J36	0	N	4/23/2009	9210 J	< 0.225 U	5 J+	754	0.48	< 2.99 U	< 0.04 UJ	4110 J	376 J	--	4	43.3 J	8340 J
MC2-J37	0	FD	4/23/2009	13500 J	< 0.225 U	7.8 J+	613	1.6	< 2.99 U	< 0.04 UJ	7370 J	480 J	--	11.8	59.8 J	11100 J
MC2-J37	0	N	4/23/2009	10200 J	< 0.225 U	5.7 J+	554	2	< 2.99 U	< 0.04 UJ	10500 J	490 J	--	13.2	65.1 J	9870 J
MC2-J38	0	N	4/23/2009	9510 J	< 0.225 U	6 J+	489	1.2	< 2.99 U	< 0.04 UJ	34400 J	253 J	--	10.5	42.3 J	9990 J
MC2-J39	0	N	4/23/2009	9610 J	< 0.225 U	7.4	432	2.1	< 2.99 U	< 0.04 UJ	14500 J	51.5 J	--	16.5	16.7 J	12100 J
MC2-J40	0	N	4/23/2009	11800 J	< 0.225 U	4.1 J+	291	1.5	< 2.99 U	< 0.04 UJ	5990 J	308 J	--	11.3	77.9 J	11200 J
MC3-J41	0	N	6/18/2009	9950	< 0.225 UJ	6	489	0.64 J+	< 2.99 U	0.16 J	8130 J	177 J+	0.82	11 J+	26.8	10800 J
MC3-J42	0	N	6/18/2009	10000	< 0.225 UJ	6.7	308	0.54 J+	< 2.99 U	0.097 J	34700 J	12.7 J+	< 0.1 U	6.2 J+	11.1	11500 J
MC3-J43	0	N	6/18/2009	9740	< 0.225 UJ	8.2	408	0.68 J+	< 2.99 U	< 0.04 U	2710 J	352 A	2.4	7 J+	81.5	10100 J
MC3-J43	0	N	6/18/2009	--	--	--	--	--	--	--	--	449 J+	--	--	--	--
MC3-J43	0	N	6/18/2009	--	--	--	--	--	--	--	--	255 J, ReA	--	--	--	--
MC3-J44	0	N	6/18/2009	11400	< 0.225 UJ	6.4	533	0.58 J+	< 2.99 U	0.086 J	13800 J	10.8 J+	< 0.1 U	7.7 J+	8.5	11000 J
MC3-J45	0	N	6/18/2009	9610	< 0.225 UJ	7.2	1190	1.7 J+	< 2.99 U	0.12 J	13200 J	20.5 J+	0.61	22.3 A	12.7	17000 J
MC3-J45	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	26.1 J+	--	--
MC3-J45	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	18.4 ReA	--	--
MC3-J46	0	FD	6/18/2009	11500	< 0.225 UJ	6.1	610	1.2 J+	< 2.99 U	0.079 J	13700 J	12.1 J+	< 0.1 U	19.6 A	9.7	10100 J
MC3-J46	0	FD	6/18/2009	--	--	--	--	--	--	--	--	--	--	20.3 J+	--	--
MC3-J46	0	FD	6/18/2009	--	--	--	--	--	--	--	--	--	--	18.8 ReA	--	--
MC3-J46	0	N	6/18/2009	11500	< 0.225 UJ	6.1	509	1.6 J+	< 2.99 U	0.096 J	12800 J	15 J+	< 0.1 U	20.8 A	10.4	11700 J
MC3-J46	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	25.4 J+	--	--
MC3-J46	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	16.2 ReA	--	--

All units in mg/kg.
-- = no sample data.
[hatched box] = Data not included in risk assessment. Sample was re-analyzed (re-analysis value indicated with a 'ReA' qualifier in the table). Original sample (shown in the table) and re-analysis sample(s) were averaged. Average value (shown with an 'A' qualifier in the table) used in the risk assessment.
[gray box] = Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 5 of 12)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Metals												
				Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Niobium	Palladium	Phosphorus (as P)	Platinum	Potassium	Selenium
MC1-AV37	0	N	6/24/2008	17.3	< 13.14 U	8390 J	394 J	< 0.0115 U	0.68 J	13 J	< 3 UJ	0.65	782 J-	< 0.048 U	3360 J	< 0.32 U
MC1-AV37	11	N	6/24/2008	11.6	< 13.14 U	6570 J	574 J	< 0.0115 U	0.6 J	9.7 J	< 3 UJ	0.98	694 J-	< 0.048 U	3320 J	< 0.32 U
MC1-AV38	0	FD	6/24/2008	88.2 J	14.1 J+	7450 J	585 J	0.0288 J	1.2	16.1 J	9.7 J	0.59	638 J-	< 0.048 U	3220 J	< 0.32 U
MC1-AV38	0	N	6/24/2008	45.2 J	< 13.14 U	8300 J	459 J	0.0269 J	1.1	59.7 J	< 3 UJ	0.73	684 J-	< 0.048 U	2390 J	< 0.32 U
MC1-AV38	11	N	6/24/2008	15.2	16.6 J+	6370 J	2120 J	< 0.0115 U	1.3	11.3 J	< 3 UJ	1.1	667 J-	< 0.048 U	1700 J	< 0.32 U
MC1-AV38C	0	N	1/6/2009	137	13.3	6090 J	355 J	0.0275 J	0.65 J	25.6	--	--	--	--	3230 J	< 0.4 U
MC1-AW36	0	N	7/7/2008	12.4	< 3.285 U	5000 J+	1350	< 0.0115 UJ	< 0.47 U	20.1	< 7.5 UJ	0.39	617	< 0.12 U	3400 J+	< 0.8 U
MC1-AW36	12	N	7/7/2008	6.6	< 3.285 U	3540 J+	216	< 0.0115 UJ	14.4	14.7	< 3 UJ	0.45	460	< 0.048 U	2010 J+	< 0.32 U
MC1-AW37	0	N	6/25/2008	42.4	< 13.14 U	5230 J+	1260	0.0185 J	2.1	20.3	< 3 UJ	0.65	791 J+	< 0.048 U	3180	< 0.32 U
MC1-AW37	10	N	6/25/2008	7.4	< 13.14 U	6490 J+	613	< 0.0115 U	0.29 J	12.8	< 3 UJ	0.79	443 J+	< 0.048 U	2820	< 0.32 U
MC1-AW38	0	N	6/24/2008	9.5	12.2 J+	4860 J	203 J	< 0.0115 U	0.32 J	32 J	< 3 UJ	0.63	594 J-	< 0.048 U	2360 J	< 0.32 U
MC1-AW38	0	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AW38	0	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AW38	12	N	6/24/2008	22.9	31.8 J+	5350 J	1130 J	< 0.0115 U	0.75 J	13.6 J	< 3 UJ	0.47	871 J-	< 0.048 U	1410 J	< 0.32 U
MC1-AW39	0	N	6/24/2008	12.5	< 13.14 U	6600 J	320 J	< 0.0115 U	0.49 J	11.4 J	< 3 UJ	0.95	833 J-	< 0.048 U	4420 J	< 0.32 U
MC1-AW39	12	N	6/24/2008	37.8	25.1 J+	5270 J	706 J	< 0.0115 U	1.5	13.4 J	< 3 UJ	0.65	929 J-	< 0.048 U	1740 J	< 0.32 U
MC1-AW39	12	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AW39	12	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AX36	0	N	6/30/2008	13	< 13.14 U	5920 J-	421	< 0.0115 U	< 0.188 U	11.7	< 3 UJ	0.63	1170	< 0.048 U	2650 J+	< 0.32 U
MC1-AX36	3	N	6/30/2008	9.5	< 13.14 U	4700 J-	333	< 0.0115 U	< 0.188 U	7.5	< 3 UJ	0.66	763	< 0.048 U	3490 J+	< 0.32 U
MC1-AX36	13	N	6/30/2008	19.3	< 13.14 U	6170 J-	1140	< 0.0115 U	< 0.47 U	9.5	< 7.5 UJ	0.82	576	< 0.12 U	2510 J+	< 0.8 U
MC1-AX37	0	N	6/26/2008	11.6	< 13.14 U	5530 J-	690	0.0124	0.58	10.3	< 3 UJ	0.65	771	< 0.048 U	2960	< 0.32 U
MC1-AX37	10	N	6/26/2008	8.4	< 13.14 U	7890 J-	244	< 0.0115 U	0.23	8.2	< 3 UJ	1	366	< 0.048 U	1770	< 0.32 U
MC1-AX38	0	N	6/25/2008	13.7	< 13.14 U	6570 J+	345	< 0.0115 U	0.51 J	10.5	< 3 UJ	0.71	711 J+	< 0.048 U	3590	< 0.32 U
MC1-AX38	11	N	6/25/2008	10.2	< 13.14 U	7920 J+	185	< 0.0115 U	0.36 J	9.9	< 3 UJ	1.5	621 J+	< 0.048 U	1860	< 0.32 U
MC1-AX39	0	N	6/23/2008	13.1	< 13.14 U	5790 J	397 J	< 0.0115 U	0.41 J	9.8	R	0.63	467	< 0.048 U	4430 J	< 0.32 U
MC1-AX39	3	N	6/23/2008	8.5	< 3.285 U	6200 J	249 J	< 0.0115 U	0.41 J	10.7	R	0.91	608	< 0.048 U	3840 J	< 0.32 U
MC1-AX39	13	N	6/23/2008	14.3	< 13.14 U	8650 J	586 J	< 0.0115 U	0.63 J	9.3	R	1.2	541	< 0.048 U	1490 J	< 0.32 U
MC1-AX40	0	N	6/23/2008	16.6	< 13.14 U	9230 J	441 J	< 0.0115 U	0.92 J	15.2	R	0.52	616	< 0.024 U	6810 J	< 0.16 U
MC1-AX40	5	N	6/23/2008	23.7	< 13.14 U	4190 J	235 J	< 0.0115 U	0.55 J	7.2	R	1	541	< 0.048 U	2360 J	< 0.32 U
MC1-AX40	5	N	6/23/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AX40	5	N	6/23/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AX40	15	N	6/23/2008	8	< 3.285 U	4820 J	216 J	< 0.0115 U	0.48 J	10.2	R	1.3	615	< 0.048 U	1530 J	< 0.32 U
MC1-AY36	0	FD	7/1/2008	43.9 J-	< 13.14 U	7200 J-	563	< 0.0115 U	1.8 J	14.9	4.6 J-	0.59	889 J	< 0.048 U	3430 J+	< 0.32 U
MC1-AY36	0	N	7/1/2008	26.2 J-	< 13.14 U	6260 J-	505	< 0.0115 U	< 0.188 UJ	11.7	< 3 UJ	0.62	737 J	< 0.048 U	3380 J+	< 0.32 U
MC1-AY36	3	N	7/1/2008	11.6 J-	< 13.14 U	5090 J-	554	< 0.0115 U	< 0.188 U	9.1	< 3 UJ	0.65	744 J	< 0.048 U	3660 J+	< 0.32 U
MC1-AY36	13	N	7/1/2008	10.5 J-	< 13.14 U	5970 J-	215	< 0.0115 U	< 0.188 U	7.7	< 3 UJ	0.87	428 J	< 0.048 U	1890 J+	< 0.32 U
MC1-AY36C	0	N	1/6/2009	12.7	13.8	5690 J	376 J	< 0.0115 U	< 0.47 U	9.5	--	--	--	--	4540 J	< 0.4 U
MC1-AY37	0	N	7/7/2008	11.7	< 3.285 U	5410 J+	342	0.0123 J-	< 0.188 U	11.1	< 3 UJ	0.46	667	< 0.048 U	2980 J+	< 0.32 U
MC1-AY37	4	N	7/7/2008	8	< 13.14 U	6980 J+	279	< 0.0115 UJ	< 0.188 U	10.2	< 3 UJ	0.9	560	< 0.048 U	3810 J+	< 0.32 U

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Metals												
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Niobium	Palladium	Phosphorus (as P)	Platinum	Potassium	Selenium
MC1-AY37	14	N	7/7/2008	9.7	34.3	7720 J+	187	< 0.0115 UJ	< 0.188 U	9.4	< 3 UJ	0.78	299	< 0.048 U	2370 J+	< 0.32 U
MC1-AY38	0	N	7/7/2008	9	< 13.14 U	9700 J+	219	< 0.0115 UJ	< 0.47 U	11.4	< 7.5 UJ	0.93	593	< 0.12 U	4780 J+	< 0.8 U
MC1-AY38	11	N	7/7/2008	7.9	< 13.14 U	6910 J+	222	< 0.0115 UJ	< 0.235 U	11.3	< 3.75 UJ	0.67	506	< 0.06 U	2480 J+	< 0.4 U
MC1-AY39	0	FD	7/7/2008	11.7	< 3.285 U	7040 J+	384	0.0121 J-	< 0.188 U	13	< 3 UJ	0.49	483	< 0.048 U	5250 J+	< 0.32 U
MC1-AY39	0	N	7/7/2008	11.3	< 3.285 U	6320 J+	369	< 0.0115 UJ	< 0.188 U	11.1	< 3 UJ	0.5	580	< 0.048 U	4820 J+	< 0.32 U
MC1-AY39	11	N	7/7/2008	7	< 13.14 U	21800 J+	144	< 0.0115 UJ	< 0.47 U	15.5	< 7.5 UJ	0.8	466	< 0.12 U	1940 J+	< 0.8 U
MC1-AZ36	0	N	6/30/2008	32.5	< 13.14 U	5290 J-	448	< 0.0115 U	< 0.188 U	9.6	4.1 J-	0.49	709	< 0.048 U	2940 J+	< 0.32 U
MC1-AZ36	3	N	6/30/2008	10.8	< 13.14 U	7770 J-	286	< 0.0115 U	< 0.188 U	10.5	< 3 UJ	0.76	749	< 0.048 U	4620 J+	< 0.32 U
MC1-AZ36	13	N	6/30/2008	13.7	30.8 J	6930 J-	255	< 0.0115 U	< 0.188 U	12.8	< 3 UJ	0.55	1300	< 0.048 U	1350 J+	< 0.32 U
MC1-AZ37	0	N	6/30/2008	11.3	< 13.14 U	8310 J-	301	< 0.0115 U	< 0.188 U	12.5	< 3 UJ	0.6	822	< 0.048 U	3390 J+	< 0.32 U
MC1-AZ37	12	N	6/30/2008	9.5	< 13.14 U	6790 J-	259	< 0.0115 U	< 0.188 U	8.2	< 3 UJ	0.73	312	< 0.048 U	1890 J+	< 0.32 U
MC1-BA36	0	N	6/30/2008	11.6	< 13.14 U	5490 J-	324	< 0.0115 U	< 0.188 U	12.4	< 3 UJ	0.47	585	< 0.048 U	2850 J+	< 0.32 U
MC1-BA36	12	N	6/30/2008	7.8	< 13.14 U	6090 J-	165	< 0.0115 U	< 0.188 U	8.1	< 3 UJ	0.99	543	< 0.048 U	2020 J+	< 0.32 U
MC1-J01	0	FD	6/30/2008	16.5 J	< 13.14 U	6080 J-	745 J	< 0.0115 U	< 0.47 U	16.5 J	< 7.5 UJ	0.42	1320 J	< 0.12 U	3480 J+	< 0.8 U
MC1-J01	0	N	6/30/2008	8.6 J	< 13.14 U	6610 J-	361 J	< 0.0115 U	< 0.47 U	7.4 J	< 7.5 UJ	0.44	406 J	< 0.12 U	3130 J+	< 0.8 U
MC1-J01	3	N	6/30/2008	11.7	< 13.14 U	6640 J-	428	< 0.0115 U	< 0.188 U	8.5	< 3 UJ	0.59	476	< 0.048 U	4120 J+	< 0.32 U
MC1-J01	13	N	6/30/2008	7.7	< 13.14 U	6580 J-	179	< 0.0115 U	< 0.188 U	8.1	< 3 UJ	1	471	< 0.048 U	2650 J+	< 0.32 U
MC1-J02	0	FD	6/26/2008	13.3 J	< 13.14 U	5510 J-	311 J	< 0.0115 U	0.36	9.7	< 3 UJ	0.75	621	< 0.048 U	3490	< 0.32 U
MC1-J02	0	N	6/26/2008	70.2 J	< 13.14 U	6990 J-	578 J	0.0283	0.98	9.4	19 J	0.85	804	< 0.048 U	3980	< 0.32 U
MC1-J02	8	N	6/26/2008	10.5	< 13.14 U	5630 J-	341	< 0.0115 U	0.26	9.8	< 3 UJ	0.61	984	< 0.048 U	2960	< 0.32 U
MC1-J02	18	N	6/26/2008	20.2	< 13.14 U	8090 J-	299	< 0.0115 U	0.38	8.6	< 3 UJ	1.1	472	< 0.048 U	2390	< 0.32 U
MC1-J03	0	N	6/26/2008	13.3	< 13.14 U	6880 J-	296	0.0209	0.35	10.6	< 3 UJ	0.6	717	< 0.048 U	3110	< 0.32 U
MC1-J03	6	N	6/26/2008	17.3	< 13.14 U	6240 J-	443	0.013	1.5	9.8	< 3 UJ	0.72	816	< 0.048 U	3390	< 0.32 U
MC1-J03	16	N	6/26/2008	6.7	< 13.14 U	8240 J-	187	0.0156	0.6	6.6	< 3 UJ	1.3	435	< 0.048 U	3190	< 0.32 U
MC1-J04	0	N	6/26/2008	9.1	< 13.14 U	5640 J-	300	< 0.0115 U	0.53	13.1	< 3 UJ	0.69	730	< 0.048 U	3600	< 0.32 U
MC1-J04	8	N	6/26/2008	14.9	< 13.14 U	5920 J-	809	< 0.0115 U	0.91	15.3	< 3 UJ	0.68	727	< 0.048 U	3570	< 0.32 U
MC1-J04	18	N	6/26/2008	5.8	< 13.14 U	6930 J-	370	0.0137	0.34	9.6	< 3 UJ	0.93	734	< 0.048 U	3270	< 0.32 U
MC1-J05	0	N	7/1/2008	45 J-	< 13.14 U	5230 J-	2020	< 0.0115 U	< 0.47 U	12.2	< 7.5 UJ	0.47 J	796 J	< 0.12 U	2750 J+	< 0.8 U
MC1-J05	9	N	7/1/2008	6.5 J-	< 13.14 U	6370 J-	195	< 0.0115 U	< 0.47 U	9.6	< 7.5 UJ	0.42 J	811 J	< 0.12 U	1050 J+	< 0.8 U
MC1-J06	0	N	6/25/2008	9.4	< 13.14 U	5650 J+	252	< 0.0115 U	0.4 J	9.5	< 3 UJ	0.71	679 J+	< 0.048 U	3270	< 0.32 U
MC1-J06	8	N	6/25/2008	15.3	< 13.14 U	6310 J+	420	0.0275 J	0.69 J	10.1	< 3 UJ	0.84	597 J+	< 0.048 U	3260	< 0.32 U
MC1-J06	18	N	6/25/2008	14	< 13.14 U	7890 J+	228	< 0.0115 U	0.54 J	10.3	< 3 UJ	0.99	416 J+	< 0.048 U	1610	< 0.32 U
MC1-J07	0	N	6/23/2008	11.8	< 13.14 U	6980 J	354 J	0.0136 J	0.46 J	12.9	R	0.72	688	< 0.048 U	4500 J	< 0.32 U
MC1-J07	8	N	6/23/2008	10.3	< 3.285 U	5960 J	318 J	< 0.0115 U	0.37 J	12.8	R	0.84	697	< 0.048 U	2540 J	< 0.32 U
MC1-J07	18	N	6/23/2008	13.1	31.8	5810 J	277 J	< 0.0115 U	0.54 J	11.1	R	0.86	605	< 0.048 U	1770 J	< 0.32 U
MC1-J08	0	FD	6/23/2008	11.4	25.4	7720 J	262 J	< 0.0115 U	0.43 J	15.2	R	1	670	< 0.048 U	4820 J	< 0.32 U
MC1-J08	0	N	6/23/2008	13.4	< 13.14 U	7260 J	254 J	< 0.0115 U	1.7 J	10.5	R	1.1	618	< 0.048 U	4030 J	< 0.32 U
MC1-J08	9	N	6/23/2008	7.9	< 13.14 U	8320 J	248 J	< 0.0115 U	0.78 J	10.4	R	0.89	586	< 0.048 U	4140 J	< 0.32 U
MC1-J08	19	N	6/23/2008	11	< 13.14 U	7140 J	497 J	0.0157 J	0.62 J	10.3	R	1.1	446	< 0.048 U	1510 J	< 0.32 U
MC1-J09	0	N	6/24/2008	14.8	6.8 J+	6690 J	386 J	< 0.0115 U	0.51 J	10.6 J	< 3 UJ	0.57	615 J-	< 0.048 U	6000 J	< 0.32 U

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Metals												
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Niobium	Palladium	Phosphorus (as P)	Platinum	Potassium	Selenium
MC1-J09	10	N	6/24/2008	11.4	29.6 J+	9510 J	239 J	< 0.0115 U	0.4 J	12.9 J	< 3 UJ	1.2	533 J-	< 0.048 U	1650 J	< 0.32 U
MC1-J10	0	N	6/30/2008	8.1	< 13.14 U	3740 J-	187	< 0.0115 U	< 0.188 U	8.9	< 3 UJ	0.21	580	< 0.048 U	1270 J+	< 0.32 U
MC1-J10	3	N	6/30/2008	6.9	< 13.14 U	3680 J-	191	< 0.0115 U	< 0.188 U	6.4	< 3 UJ	0.57	611	< 0.048 U	3620 J+	< 0.32 U
MC1-J10	13	N	6/30/2008	17.9	< 13.14 U	5760 J-	654	< 0.0115 U	< 0.188 U	9.9	< 3 UJ	0.74	685	< 0.048 U	2110 J+	< 0.32 U
MC1-J11	0	N	6/24/2008	10.6	< 13.14 U	4900 J	206 J	< 0.0115 U	0.37 J	35.8 J	< 3 UJ	0.63	463 J-	< 0.048 U	1910 J	< 0.32 U
MC1-J11	4	N	6/24/2008	10.7	< 13.14 U	7040 J	331 J	< 0.0115 U	0.43 J	10.6 J	< 3 UJ	1.2	653 J-	< 0.048 U	4140 J	< 0.32 U
MC1-J11	14	N	6/24/2008	10	18.9 J+	5620 J	238 J	< 0.0115 U	0.36 J	10.4 J	< 3 UJ	0.79	686 J-	< 0.048 U	1910 J	< 0.32 U
MC1-J12	0	FD	6/25/2008	19.1	< 13.14 U	5320 J+	1060 J	0.0189 J	0.49 J	11.6	< 3 UJ	0.76	628 J+	< 0.048 U	3850	< 0.32 U
MC1-J12	0	N	6/25/2008	13.6	< 13.14 U	6880 J+	496 J	0.0137 J	0.74 J	15.1	< 3 UJ	0.46	758 J+	< 0.048 U	3260	< 0.32 U
MC1-J12	11	N	6/25/2008	10.1	< 13.14 U	5570 J+	264	< 0.0115 U	0.33 J	9.4	< 3 UJ	0.85	596 J+	< 0.048 U	2150	< 0.32 U
MC1-J13	0	N	6/25/2008	8.8	< 13.14 U	7940 J+	541	< 0.0115 U	0.39 J	12.2	< 3 UJ	0.75	703 J+	< 0.048 U	2360	< 0.32 U
MC1-J13	12	N	6/25/2008	10.2	< 13.14 U	6470 J+	302	< 0.0115 U	0.41 J	9.5	< 3 UJ	0.98	508 J+	< 0.048 U	2540	< 0.32 U
MC1-J14	0	N	6/25/2008	7.8	21.1 J	8210 J+	168	< 0.0115 U	0.38 J	10.5	< 3 UJ	0.98	820 J+	< 0.048 U	4100	< 0.32 U
MC1-J14	12	N	6/25/2008	11.1	19 J	5700 J+	195	< 0.0115 U	0.61 J	9	< 3 UJ	1.2	776 J+	< 0.048 U	2760	< 0.32 U
MC1-J15	0	FD	6/26/2008	8.1 J	< 13.14 U	6760 J-	1450	< 0.0115 U	< 0.94 U	23.9	< 3 UJ	0.53	844 J	< 0.048 U	2880	< 0.32 U
MC1-J15	0	N	6/26/2008	21.7	< 13.14 U	5370 J-	1690	< 0.0115 U	0.89	29	--	0.43	474 J	< 0.048 U	2700	< 0.32 U
MC1-J15	11	N	6/26/2008	16.2	16.2	9940 J-	376	< 0.0115 U	0.45	9.7	< 3 UJ	1.1	1320	< 0.048 U	2530	< 0.32 U
MC1-J16	0	N	6/26/2008	9.4	< 13.14 U	5250 J-	404	< 0.0115 U	0.39	8.6	< 3 UJ	0.73	773	< 0.048 U	4180	< 0.32 U
MC1-J16	3	N	6/26/2008	16.6	< 13.14 U	5990 J-	463	0.0125	0.38	11.2	< 3 UJ	0.76	879	< 0.048 U	3640	< 0.32 U
MC1-J16	13	N	6/26/2008	8.9	< 13.14 U	8630 J-	200	< 0.0115 U	0.35	11.2	< 3 UJ	1.1	544	< 0.048 U	2600	< 0.32 U
MC1-J17	0	N	6/25/2008	11.1	< 13.14 U	12000 J+	349	< 0.0115 U	0.33 J	10.9	< 3 UJ	1.3	812 J+	< 0.048 U	4250	< 0.32 U
MC1-J17	10	N	6/25/2008	10.4	< 13.14 U	6210 J+	233	< 0.0115 U	0.41 J	10.9	< 3 UJ	0.83	410 J+	< 0.048 U	1610	< 0.32 U
MC1-J18	0	FD	7/7/2008	10	< 3.285 U	6120 J+	1040	< 0.0115 UJ	< 0.47 U	22.3	< 7.5 UJ	0.41	591	< 0.12 U	3050 J+	< 0.8 U
MC1-J18	0	N	7/7/2008	12.2	< 3.285 U	5400 J+	932	< 0.0115 UJ	< 0.235 U	13.7	< 3.75 UJ	0.45	484	< 0.06 U	4070 J+	< 0.4 U
MC1-J18	12	N	7/7/2008	11.7	< 3.285 U	5510 J+	357	< 0.0115 UJ	< 0.188 U	14.8	< 3 UJ	0.65	495	< 0.048 U	2960 J+	< 0.32 U
MC1-J19	0	N	7/7/2008	9.4	< 3.285 U	4530 J+	499	< 0.0115 UJ	< 0.188 U	9	< 3 UJ	0.49	676	< 0.048 U	3780 J+	< 0.32 U
MC1-J19	4	N	7/7/2008	7.6	< 3.285 U	6480 J+	324	< 0.0115 UJ	< 0.188 U	12.8	< 3 UJ	0.54	566	< 0.048 U	2600 J+	< 0.32 U
MC1-J19	14	N	7/7/2008	10.3	< 3.285 U	5810 J+	364	< 0.0115 UJ	< 0.188 U	10.8	< 3 UJ	0.79	630	< 0.048 U	3090 J+	< 0.32 U
MC1-J20	0	N	7/7/2008	44.2	< 3.285 U	6150 J+	466	< 0.0115 UJ	1.1	10.8	5.1 J-	0.49	646	< 0.048 U	3530 J+	< 0.32 U
MC1-J20	10	N	7/7/2008	24.8	< 13.14 U	6790 J+	457	< 0.0115 UJ	< 0.188 U	14.3	< 3 UJ	0.62	970	< 0.048 U	1800 J+	< 0.32 U
MC1-J21	0	N	1/6/2009	25.2	15.8	6530 J	375 J	< 0.0115 U	< 0.47 U	19.5	--	--	--	--	2870 J	< 0.4 U
MC1-J22	0	N	1/6/2009	67.7	12.9	4630 J	294 J	0.0171 J	0.67 J	24.9	--	--	--	--	2350 J	< 0.4 U
MC1-J23	0	N	1/6/2009	15.9	18.8	6340 J	1290 J	0.015 J	0.54 J	24.3	--	--	--	--	3130 J	< 0.4 U
MC1-J24	0	N	1/6/2009	10.4	15.7	7780 J	1980 J	0.021 J	0.62 J	36.4	--	--	--	--	3790 J	< 0.4 U
MC1-J25	0	N	11/26/2008	16.9 J+	19.3	7890 J+	446	--	0.6 J	15.3	--	--	--	--	7720 J+	< 0.4 U
MC1-J26	0	FD	11/26/2008	24.2 J+	18.4	8780 J+	475	--	0.55 J	28.4	--	--	--	--	5120 J+	< 0.4 U
MC1-J26	0	N	11/26/2008	18.9 J+	14.7	7490 J+	463	--	< 0.47 U	24	--	--	--	--	5050 J+	< 0.4 U
MC1-J27	0	N	11/26/2008	19.9 J+	20.6	10100 J+	509	--	0.59 J	29.7	--	--	--	--	3190 J+	< 0.4 U
MC1-J28	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J28	0	N	1/6/2009	17.1	16.4	6670 J	330 J	0.0165 J	0.54 J	37	--	--	--	--	2250 J	< 0.4 U

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Metals												
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Niobium	Palladium	Phosphorus (as P)	Platinum	Potassium	Selenium
MC1-J29	0	FD	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J29	0	FD	1/6/2009	121	12.9	4780 J	213 J	0.0249 J	0.66 J	14.8	--	--	--	--	2190 J	< 0.4 U
MC1-J29	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J29	0	N	1/6/2009	142	12.2	4770 J	305 J	0.0258 J	0.66 J	15.4	--	--	--	--	2180 J	< 0.4 U
MC1-J30	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J30	0	N	1/6/2009	18.3	23.6	4550 J	447 J	0.0451	< 0.47 U	24.9	--	--	--	--	1880 J	< 0.4 U
MC1-J31	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J31	0	N	1/6/2009	28.5	16.3	4090 J	399 J	0.0192 J	< 0.47 U	12.8	--	--	--	--	2650 J	< 0.4 U
MC2-AV38C	0	N	4/23/2009	18.2 J+	17.7	7520 J	630 J	< 0.005 U	< 0.2 U	18.1	--	--	--	--	2720 J	< 0.225 U
MC2-J32	0	N	4/23/2009	13.3 J+	46.4	6730 J	328 J	< 0.005 U	< 0.2 U	42.6	--	--	--	--	2840 J	< 0.225 U
MC2-J33	0	N	4/23/2009	23.5 J+	15.7	8680 J	991 J	< 0.005 U	< 0.2 U	45.3	--	--	--	--	2760 J	< 0.225 U
MC2-J34	0	N	4/23/2009	16.7 J+	18.9	9400 J	447 J	< 0.005 U	< 0.2 U	63.2	--	--	--	--	3200 J	< 0.225 U
MC2-J35	0	N	4/23/2009	14.4 J+	13	3840 J	201 J	< 0.005 U	< 0.2 U	20.8	--	--	--	--	1870 J	< 0.225 U
MC2-J36	0	N	4/23/2009	17.3 J+	11.5	3580 J	337 J	< 0.005 U	< 0.2 U	22.4	--	--	--	--	2240 J	< 0.225 U
MC2-J37	0	FD	4/23/2009	24.9 J+	15.7	5290 J	564 J	< 0.005 U	< 0.2 U	20.9	--	--	--	--	2990 J	< 0.225 U
MC2-J37	0	N	4/23/2009	21.6 J+	13.8	5050 J	721 J	< 0.005 U	< 0.2 U	24.3	--	--	--	--	2840 J	< 0.225 U
MC2-J38	0	N	4/23/2009	29.5 J+	11.8	5530 J	398 J	< 0.005 U	< 0.2 U	20.7	--	--	--	--	2850 J	< 0.225 U
MC2-J39	0	N	4/23/2009	19.7 J+	11.6	5910 J	1050 J	< 0.005 U	< 0.2 U	25.1	--	--	--	--	3460 J	< 0.225 U
MC2-J40	0	N	4/23/2009	18.6 J+	15.9	4900 J	957 J	< 0.005 U	< 0.2 U	19.9	--	--	--	--	2200 J	< 0.225 U
MC3-J41	0	N	6/18/2009	55.9	20.1	6880	457	< 0.005 U	< 0.2 U	32.7	--	--	--	--	2400	< 0.225 U
MC3-J42	0	N	6/18/2009	7.9	13.7	12600	855	< 0.005 U	< 0.2 U	22.3	--	--	--	--	2290	< 0.225 U
MC3-J43	0	N	6/18/2009	15.5	12.8	5460	238	< 0.005 U	< 0.2 U	25.7	--	--	--	--	1800	< 0.225 U
MC3-J43	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J43	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J44	0	N	6/18/2009	13.4	12.6	6920	1400	< 0.005 U	< 0.2 U	15.9	--	--	--	--	4510	< 0.225 U
MC3-J45	0	N	6/18/2009	19.3	15.4	8180	1360	< 0.005 U	< 0.2 U	25.8	--	--	--	--	3140	< 0.225 U
MC3-J45	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J45	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	FD	6/18/2009	11	14.4	7610	1150	< 0.005 U	< 0.2 U	24.2	--	--	--	--	4140	< 0.225 U
MC3-J46	0	FD	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	FD	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	N	6/18/2009	10	14.5	8740	1470	< 0.005 U	< 0.2 U	27.4	--	--	--	--	4110	< 0.225 U
MC3-J46	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--

All units in mg/kg.
-- = no sample data.
[hatched box] = Data not included in risk assessment. Sample was re-analyzed (re-analysis value indicated with a 'ReA' qualifier in the table). Original sample (shown in the table) and re-analysis sample(s) were averaged. Average value (shown with an 'A' qualifier in the table) used in the risk assessment.
[shaded box] = Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Metals												
				Silicon	Silver	Sodium	Strontium	Sulfur	Thallium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium
MC1-AV37	0	N	6/24/2008	184 J+	0.085 J	657 J-	240 J	< 108.5 U	< 0.3 U	0.6	487 J	0.76 J-	0.84	36.3 J	35.4 J-	14.9 J-
MC1-AV37	11	N	6/24/2008	95.3 J+	0.051 J	2240 J-	396 J	< 108.5 U	< 0.3 U	< 0.3 U	349 J	< 0.5 UJ	1.2	30.7 J	26.8 J-	10 J-
MC1-AV38	0	FD	6/24/2008	140 J+	0.62	178 J	200 J	< 108.5 U	0.31 J	2.7 J	1300 J	2.3 J	1.7	87.8 J	44.5 J-	59.3 J
MC1-AV38	0	N	6/24/2008	122 J+	0.33 J	349 J	242 J	< 108.5 U	< 0.3 U	0.88 J	510 J	0.79 J	2.8	129 J	39.4 J-	18.1 J
MC1-AV38	11	N	6/24/2008	139 J+	0.096 J	1670 J-	433 J	< 108.5 U	< 0.3 U	< 0.3 U	358 J	1 J-	1.9	48.3 J	31.7 J-	12.3 J-
MC1-AV38C	0	N	1/6/2009	--	0.22 J+	963 J+	190	--	< 0.75 U	1.4 J+	922	1.9 J	4.4	311 J+	35.3 J+	--
MC1-AW36	0	N	7/7/2008	294 J+	< 0.11 U	1690	209	< 108.5 U	< 0.75 U	< 0.75 U	365 J+	< 1.25 UJ	0.87	50.1	27.3 J-	11.8 J
MC1-AW36	12	N	7/7/2008	277 J+	< 0.044 U	1670	241	< 108.5 U	< 0.3 U	0.81	264 J+	< 0.5 UJ	0.68	13.3	17.6 J-	6.1 J
MC1-AW37	0	N	6/25/2008	212 J+	0.081 J	1700 J-	261	< 43.4 U	0.59	< 0.3 U	267 J+	1.3	1.3	63.2	65.7	10.8 J
MC1-AW37	10	N	6/25/2008	200 J+	< 0.044 U	1300 J-	302	567 J	< 0.3 U	< 0.3 U	320 J+	< 0.5 U	1.4	30.2	24.4	8.5 J
MC1-AW38	0	N	6/24/2008	120 J+	0.053 J	1240 J-	204 J	< 108.5 U	< 0.3 U	< 0.3 U	310 J	< 0.5 UJ	8.3	277 A	32.9 J-	9.2 J-
MC1-AW38	0	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	455 J	--	--
MC1-AW38	0	N	6/24/2008	--	--	--	--	--	--	--	--	--	--	99.1 ReA	--	--
MC1-AW38	12	N	6/24/2008	102 J+	0.083 J	1280 J-	186 J	< 108.5 U	< 0.3 U	< 0.3 U	328 J	1.2 J-	1.1	37.4 J	38.5 J-	12.6 J-
MC1-AW39	0	N	6/24/2008	138 J+	0.062 J	394 J-	374 J	< 108.5 U	< 0.3 U	< 0.3 U	410 J	< 0.5 UJ	0.85	26.1 J	29.5 J-	11.8 J-
MC1-AW39	12	N	6/24/2008	133 J+	0.17 J	2200 J-	274 J	< 108.5 U	6.97 A	< 0.3 U	427 J	0.64 J-	1.3	36.4 J	45.3 J-	13.9 J-
MC1-AW39	12	N	6/24/2008	--	--	--	--	--	20.4	--	--	--	--	--	--	--
MC1-AW39	12	N	6/24/2008	--	--	--	--	--	0.3 U, ReA (	--	--	--	--	--	--	--
MC1-AX36	0	N	6/30/2008	306 J+	0.3 J+	1380	300 J	< 108.5 U	< 0.3 U	0.41	340 J	< 0.5 UJ	1.2	21.2	21.8	10.5 J
MC1-AX36	3	N	6/30/2008	584 J+	0.042 J+	1510	328 J	< 108.5 U	< 0.3 U	< 0.3 U	306 J	< 0.5 UJ	0.61	19.1	22	8.5 J
MC1-AX36	13	N	6/30/2008	314 J+	< 0.11 U	1620	404 J	< 108.5 U	< 0.75 U	< 0.75 U	285 J	< 1.25 UJ	1.1	18.9	53.6	8 J
MC1-AX37	0	N	6/26/2008	164 J+	0.066 J+	1570	219	< 43.4 U	< 0.3 U	< 0.3 U	371	< 0.5 U	0.98	25.7	23	10.9
MC1-AX37	10	N	6/26/2008	148 J+	0.051 J+	2430	464	459 J+	< 0.3 U	< 0.3 U	307	< 0.5 U	1.2	19.2	24.9	8.5
MC1-AX38	0	N	6/25/2008	374 J+	0.073 J	920 J-	287	455 J	< 0.3 U	0.31 J	334 J+	< 0.5 U	0.68	20.9	27.5	10.3 J
MC1-AX38	11	N	6/25/2008	177 J+	0.056 J	1920 J-	632	2680	< 0.3 U	< 0.3 U	308 J+	< 0.5 U	1.5	22.4	28.8	10.2 J
MC1-AX39	0	N	6/23/2008	136	0.075 J+	454	244	< 108.5 U	< 0.3 U	0.36 J	368 J	< 0.5 UJ	0.57	19.1	27	9.9 J
MC1-AX39	3	N	6/23/2008	88.3	0.056 J+	929	340	< 108.5 U	< 0.3 U	< 0.3 U	388 J	< 0.5 UJ	0.69	20.5	21.2	8.3 J
MC1-AX39	13	N	6/23/2008	107	0.058 J+	1680	408	< 108.5 U	< 0.3 U	< 0.3 U	363 J	< 0.5 UJ	1.7	25.2	23.3	7.8 J
MC1-AX40	0	N	6/23/2008	628	0.085 J+	403	210	< 108.5 U	< 0.15 U	0.56	371 J	< 0.25 UJ	0.87	23.9	44.4	13.3 J
MC1-AX40	5	N	6/23/2008	103	0.047 J+	1120	356	< 108.5 U	< 0.3 U	< 0.3 U	305 J	< 0.5 UJ	0.85	17	22.6	7.1 J
MC1-AX40	5	N	6/23/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AX40	5	N	6/23/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-AX40	15	N	6/23/2008	94.2	0.05 J+	1270	480	< 108.5 U	< 0.3 U	< 0.3 U	256 J	< 0.5 UJ	0.63	19.5	31.2	8.3 J
MC1-AY36	0	FD	7/1/2008	535	0.22 J+	343	277	< 108.5 U	0.53	2.1 J	576 J	2.4 J	1.1	38 J-	35.7	34.1
MC1-AY36	0	N	7/1/2008	497	0.13 J+	528	304	< 108.5 U	< 0.3 U	1.1 J	452 J	1.1 J	0.87	28.1 J-	28.8	20.4
MC1-AY36	3	N	7/1/2008	267	0.049 J+	677	332	< 108.5 U	< 0.3 U	< 0.3 U	290 J	0.57 J	0.66	15.8 J-	20.1	8 J
MC1-AY36	13	N	7/1/2008	279	< 0.044 U	1220	400	< 108.5 U	< 0.3 U	< 0.3 U	329 J	< 0.5 U	1.1	15.8 J-	20.9	7.2 J
MC1-AY36C	0	N	1/6/2009	--	< 0.11 U	288 J+	299	--	< 0.75 U	< 0.75 U	320	< 1.25 U	0.6	27.6 J+	27 J+	--
MC1-AY37	0	N	7/7/2008	187 J+	0.067 J	245	244	< 108.5 U	< 0.3 U	< 0.3 U	355 J+	< 0.5 UJ	0.68	22.8	26.4 J-	11.7 J
MC1-AY37	4	N	7/7/2008	171 J+	0.052 J	1410	486	< 108.5 U	< 0.3 U	< 0.3 U	291 J+	< 0.5 UJ	1.2	18.2	20.5 J-	9.2 J

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Metals												
				Silicon	Silver	Sodium	Strontium	Sulfur	Thallium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium
MC1-AY37	14	N	7/7/2008	205 J+	0.07 J	1800	414	< 108.5 U	< 0.3 U	< 0.3 U	315 J+	< 0.5 UJ	1.5	22.2	26 J-	10.9 J
MC1-AY38	0	N	7/7/2008	356 J+	< 0.11 U	261	487	< 108.5 U	< 0.75 U	< 0.75 U	381 J+	< 1.25 UJ	0.67	19.6	41.4 J-	8.7 J
MC1-AY38	11	N	7/7/2008	251 J+	0.068 J	1930	346	2200 J	< 0.375 U	< 0.375 U	339 J+	< 0.625 UJ	1.3	19	21.9 J-	10.3 J
MC1-AY39	0	FD	7/7/2008	243 J+	0.15 J	949	251	< 108.5 U	< 0.3 U	0.31 J	333 J+	< 0.5 UJ	0.81	22.9	37 J-	13.5 J
MC1-AY39	0	N	7/7/2008	295 J+	0.097 J	1420	242	< 108.5 U	< 0.3 U	< 0.3 U	356 J+	< 0.5 UJ	0.81	21.5	32.2 J-	11.7 J
MC1-AY39	11	N	7/7/2008	584 J+	< 0.11 U	1650	416	< 108.5 U	< 0.75 U	< 0.75 U	282 J+	< 1.25 UJ	2.7	22.3	28.2 J-	11.3 J
MC1-AZ36	0	N	6/30/2008	146 J+	0.25 J+	363	243 J	< 108.5 U	< 0.3 U	1.6	473 J	1.7 J-	0.83	29.7	25.3	28.8
MC1-AZ36	3	N	6/30/2008	175 J+	0.06 J+	467	372 J	< 108.5 U	< 0.3 U	0.32 J	311 J	< 0.5 UJ	1.4	22	27.6	9.8 J
MC1-AZ36	13	N	6/30/2008	183 J+	0.34 J+	1970	248 J	6720 J+	< 0.3 U	< 0.3 U	199 J	< 0.5 UJ	1.5	23.6	30.5	9.3 J
MC1-AZ37	0	N	6/30/2008	424 J+	0.07 J+	493	289 J	< 108.5 U	< 0.3 U	0.35 J	390 J	< 0.5 UJ	0.79	19.5	24.5	9.9 J
MC1-AZ37	12	N	6/30/2008	134 J+	0.045 J+	2620	353 J	< 108.5 U	< 0.3 U	< 0.3 U	223 J	< 0.5 UJ	2.6	22.9	27.3	7.6 J
MC1-BA36	0	N	6/30/2008	269 J+	0.049 J+	290	229 J	< 108.5 U	< 0.3 U	0.32 J	332 J	< 0.5 UJ	0.62	19.7	24.5	8.2 J
MC1-BA36	12	N	6/30/2008	158 J+	0.064 J+	2060	498 J	< 108.5 U	< 0.3 U	< 0.3 U	300 J	< 0.5 UJ	1.5	16.2	28.5	7.7 J
MC1-J01	0	FD	6/30/2008	229 J	< 0.11 U	1820	226 J	< 108.5 U	< 0.75 U	< 0.75 U	328 J	< 1.25 UJ	0.69	25.5	23.2	9.2 J
MC1-J01	0	N	6/30/2008	679 J	< 0.11 U	1450	230 J	< 108.5 U	< 0.75 U	< 0.75 U	313 J	< 1.25 UJ	0.72	19.8	25.1	9.1 J
MC1-J01	3	N	6/30/2008	181 J+	0.048 J+	2030	298 J	< 108.5 U	< 0.3 U	< 0.3 U	356 J	< 0.5 UJ	0.7	20.6	24.5	8.7 J
MC1-J01	13	N	6/30/2008	160 J+	< 0.044 U	2200	507 J	< 108.5 U	< 0.3 U	< 0.3 U	286 J	< 0.5 UJ	0.96	19.1	22.4	6.9 J
MC1-J02	0	FD	6/26/2008	241 J+	0.068 J+	440	253	< 43.4 U	< 0.3 U	0.35 J	316 J	< 0.5 UJ	0.61 J	17.3 J	23.8	9.4 J
MC1-J02	0	N	6/26/2008	241 J+	0.45 J+	329	271	774 J+	< 0.3 U	4.4 J	750 J	6.3 J	1.4 J	54.9 J	27.4	71.7 J
MC1-J02	8	N	6/26/2008	200 J+	0.067 J+	1430	225	< 43.4 U	< 0.3 U	0.33	372	< 0.5 U	0.84	22.6	24	10.6
MC1-J02	18	N	6/26/2008	184 J+	0.059 J+	1180	501	557 J+	< 0.3 U	0.32	407	1.2	1	17.9	21.9	9.4
MC1-J03	0	N	6/26/2008	301 J+	0.085 J+	248	316	476 J+	< 0.3 U	0.5	436	< 0.5 U	0.79	23.8	25.2	12.7
MC1-J03	6	N	6/26/2008	376 J+	0.093 J+	527	305	< 43.4 U	< 0.3 U	0.53	451	< 0.5 U	0.74	18.3	29.6	13
MC1-J03	16	N	6/26/2008	232 J+	0.06 J+	3300	465	675 J+	< 0.3 U	< 0.3 U	347	< 0.5 U	1.7	14.5	24.5	9.5
MC1-J04	0	N	6/26/2008	293 J+	0.095 J+	518	251	473 J+	< 0.3 U	0.59	493	1.3	0.7	16	28.6	15.8
MC1-J04	8	N	6/26/2008	266 J+	0.089 J+	1420	329	600 J+	< 0.3 U	0.35	443	< 0.5 U	0.77	23.6	24.9	10.5
MC1-J04	18	N	6/26/2008	211 J+	0.066 J+	2210	322	696 J+	< 0.3 U	< 0.3 U	388	< 0.5 U	0.98	18	20.4	10.6
MC1-J05	0	N	7/1/2008	306	0.17 J+	145	221	< 108.5 U	< 0.75 U	1.6	423 J	7.4	0.78	41.8 J-	72.4	34.4 J
MC1-J05	9	N	7/1/2008	338	< 0.11 U	1200	214	< 108.5 U	< 0.75 U	< 0.75 U	172 J	< 1.25 U	1.3	18.3 J-	22.6	6.1 J
MC1-J06	0	N	6/25/2008	465 J+	0.051 J	515 J-	276	462 J	< 0.3 U	< 0.3 U	344 J+	< 0.5 U	0.69	20.6	24.3	9.9 J
MC1-J06	8	N	6/25/2008	373 J+	0.051 J	1860 J-	315	493 J	< 0.3 U	< 0.3 U	380 J+	0.55 J	0.81	22.1	24.2	9.1 J
MC1-J06	18	N	6/25/2008	158 J+	< 0.044 U	1590 J-	373	605 J	< 0.3 U	< 0.3 U	291 J+	< 0.5 U	1.6	28.5	35.4	8.7 J
MC1-J07	0	N	6/23/2008	146	0.077 J+	832	255	< 108.5 U	< 0.3 U	< 0.3 U	360 J	< 0.5 UJ	0.68	21.6	28.1	10.5 J
MC1-J07	8	N	6/23/2008	89.2	0.06 J+	1890	279	< 108.5 U	< 0.3 U	< 0.3 U	339 J	< 0.5 UJ	0.78	25.2	22.3	8.6 J
MC1-J07	18	N	6/23/2008	120	0.077 J+	2320	302	< 108.5 U	< 0.3 U	< 0.3 U	368 J	< 0.5 UJ	0.99	29.4	27.8	11.6 J
MC1-J08	0	FD	6/23/2008	91.2 J	0.062 J+	1270 J	384	< 108.5 U	< 0.3 U	< 0.3 U	346 J	< 0.5 UJ	0.68	19.1	28.8	9.3 J
MC1-J08	0	N	6/23/2008	165 J	0.089 J+	613 J	413	< 108.5 U	< 0.3 U	0.43	404 J	< 0.5 UJ	0.77	24	25.2	12.9 J
MC1-J08	9	N	6/23/2008	116	0.066 J+	1580	331	< 108.5 U	< 0.3 U	< 0.3 U	409 J	< 0.5 UJ	1.1	32.9	22.9	8.9 J
MC1-J08	19	N	6/23/2008	91.7	0.074 J+	2390	393	< 108.5 U	< 0.3 U	< 0.3 U	344 J	< 0.5 UJ	1.3	31.9	23.6	9.5 J
MC1-J09	0	N	6/24/2008	131 J+	0.086 J	3300 J-	228 J	< 108.5 U	< 0.3 U	< 0.3 U	345 J	< 0.5 UJ	0.89	33.3 J	28.8 J-	11.2 J-

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Metals												
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Silicon	Silver	Sodium	Strontium	Sulfur	Thallium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium
MC1-J09	10	N	6/24/2008	94.9 J+	0.083 J	3080 J-	429 J	< 108.5 U	< 0.3 U	0.31 J	397 J	0.52 J-	1.8	35.8 J	33.8 J-	12.9 J-
MC1-J10	0	N	6/30/2008	158 J+	< 0.044 U	779	99.8 J	< 108.5 U	< 0.3 U	< 0.3 U	211 J	< 0.5 UJ	0.49	17.8	26.7	5 J
MC1-J10	3	N	6/30/2008	139 J+	< 0.044 U	3030	288 J	< 108.5 U	< 0.3 U	< 0.3 U	202 J	< 0.5 UJ	0.64	13.7	20.7	6 J
MC1-J10	13	N	6/30/2008	184 J+	0.061 J+	2420	374 J	< 108.5 U	< 0.3 U	< 0.3 U	271 J	< 0.5 UJ	1.4	28.2	33	11.6 J
MC1-J11	0	N	6/24/2008	139 J+	0.11 J	949 J-	187 J	< 108.5 U	< 0.3 U	< 0.3 U	303 J	< 0.5 UJ	6.8	306	42.8 J-	8.1 J-
MC1-J11	4	N	6/24/2008	120 J+	0.091 J	2180 J-	475 J	< 108.5 U	< 0.3 U	< 0.3 U	322 J	0.91 J-	1.1	33.4 J	26.3 J-	10.2 J-
MC1-J11	14	N	6/24/2008	119 J+	0.074 J	2730 J-	311 J	< 108.5 U	< 0.3 U	< 0.3 U	319 J	< 0.5 UJ	1.4	34.1 J	25.1 J-	8.5 J-
MC1-J12	0	FD	6/25/2008	197 J	0.08 J	2660 J	283 J	< 43.4 U	0.33 J	< 0.3 U	306 J+	< 0.5 U	0.75	33.8	40.9	9.8 J
MC1-J12	0	N	6/25/2008	504 J	0.19 J	1240 J	168 J	< 43.4 U	< 0.3 U	0.37 J	425 J+	< 0.5 U	0.71	28.6	31.6	12.1 J
MC1-J12	11	N	6/25/2008	129 J+	0.05 J	1630 J-	341	493 J	< 0.3 U	< 0.3 U	297 J+	< 0.5 U	0.95	22.2	24.5	8.3 J
MC1-J13	0	N	6/25/2008	538 J+	0.091 J	1140 J-	281	604 J	< 0.3 U	< 0.3 U	278 J+	< 0.5 U	1	54.6	19.8	6.9 J
MC1-J13	12	N	6/25/2008	144 J+	< 0.044 U	1780 J-	393	499 J	< 0.3 U	< 0.3 U	238 J+	< 0.5 U	1.2	21.9	25.5	9.4 J
MC1-J14	0	N	6/25/2008	119 J+	0.066 J	1770 J-	398	477 J	< 0.3 U	< 0.3 U	264 J+	< 0.5 U	0.86	19.7	21.3	8.9 J
MC1-J14	12	N	6/25/2008	199 J+	0.049 J	2490 J-	482	565 J	< 0.3 U	< 0.3 U	361 J+	< 0.5 U	1.2	20.9	27.5	8.9 J
MC1-J15	0	FD	6/26/2008	237 J+	0.17 J+	1460	249	541 J+	2.3 J	0.48	394	3.6 J	2.3 J	47	< 25 UJ	14.3
MC1-J15	0	N	6/26/2008	202 J+	0.066 J+	1720	228	< 43.4 U	< 0.3 UJ	< 0.3 U	281	< 0.5 UJ	0.88 J	72.8	98.8 J	8.1
MC1-J15	11	N	6/26/2008	193 J+	0.076 J+	2060	299	766 J+	< 0.3 U	< 0.3 U	297	< 0.5 U	2	20.6	22.3	11.3
MC1-J16	0	N	6/26/2008	205 J+	0.059 J+	1930	263	< 43.4 U	< 0.3 U	< 0.3 U	362	< 0.5 U	0.63	18.1	21.7	8.9
MC1-J16	3	N	6/26/2008	240 J+	0.073 J+	1570	174	527 J+	< 0.3 U	< 0.3 U	426	< 0.5 U	0.85	25.1	23.1	11
MC1-J16	13	N	6/26/2008	164 J+	0.068 J+	2180	352	783 J+	< 0.3 U	< 0.3 U	346	< 0.5 U	1.3	18.5	23.7	11.1
MC1-J17	0	N	6/25/2008	115 J+	0.045 J	1940 J-	499	709 J	< 0.3 U	< 0.3 U	279 J+	< 0.5 U	1.1	22.6	26	9.8 J
MC1-J17	10	N	6/25/2008	256 J+	0.045 J	1530 J-	328	511 J	< 0.3 U	< 0.3 U	363 J+	< 0.5 U	1.3	24.6	27.8	10 J
MC1-J18	0	FD	7/7/2008	261 J+	< 0.11 U	1780	234	< 108.5 U	1.3	< 0.75 U	297 J+	< 1.25 UJ	0.9	41.5	23.1 J-	9.4 J
MC1-J18	0	N	7/7/2008	269 J+	0.097 J	1870	220	< 108.5 U	< 0.375 U	< 0.375 U	357 J+	< 0.625 UJ	0.73	37.6	29.1 J-	11.7 J
MC1-J18	12	N	7/7/2008	217 J+	0.061 J	1620	336	< 108.5 U	< 0.3 U	< 0.3 U	281 J+	< 0.5 UJ	1	23	25.4 J-	10.2 J
MC1-J19	0	N	7/7/2008	236 J+	0.053 J	2090	264	< 108.5 U	< 0.3 U	< 0.3 U	277 J+	< 0.5 UJ	0.59	21.9	20.2 J-	8 J
MC1-J19	4	N	7/7/2008	280 J+	0.063 J	1380	277	< 108.5 U	< 0.3 U	< 0.3 U	289 J+	< 0.5 UJ	0.73	23.9	20.6 J-	8.7 J
MC1-J19	14	N	7/7/2008	213 J+	0.076 J	2030	410	< 108.5 U	< 0.3 U	< 0.3 U	310 J+	< 0.5 UJ	1.2	23.5	24.1 J-	9.3 J
MC1-J20	0	N	7/7/2008	418 J+	0.2 J	158	247	< 108.5 U	< 0.3 U	1.4	516 J+	2.8 J-	0.8	38	34.2 J-	30.5
MC1-J20	10	N	7/7/2008	245 J+	0.12 J	922	320	< 108.5 U	< 0.3 U	< 0.3 U	276 J+	0.6 J-	1.9	27.3	35.5 J-	12.4 J
MC1-J21	0	N	1/6/2009	--	< 0.11 U	2230 J+	236	--	< 0.75 U	< 0.75 U	466	< 1.25 U	1.1	78.9 J+	29 J+	--
MC1-J22	0	N	1/6/2009	--	0.16 J+	1440 J+	184	--	< 0.75 U	1.5 J+	799	< 1.25 U	8.6	852 J+	37.7 J+	--
MC1-J23	0	N	1/6/2009	--	< 0.11 U	2540 J+	193	--	3.2	< 0.75 U	347	2.3 J	2	166 J+	144 J+	--
MC1-J24	0	N	1/6/2009	--	0.18 J+	2520 J+	197	--	2.2	< 0.75 U	318	2.8	1.6	99.2 J+	236 J+	--
MC1-J25	0	N	11/26/2008	--	< 0.11 U	655 J-	242	--	< 0.75 U	< 0.75 U	530	< 1.25 UJ	0.95	78 J+	45.2 J+	--
MC1-J26	0	FD	11/26/2008	--	0.22 J+	1230 J	231	--	< 0.75 U	< 0.75 U	631	< 1.25 UJ	1.2	116 J	47.8 J+	--
MC1-J26	0	N	11/26/2008	--	< 0.11 U	2130 J	293	--	< 0.75 U	< 0.75 U	471	< 1.25 UJ	0.96	66 J	36.3 J+	--
MC1-J27	0	N	11/26/2008	--	0.12 J+	344 J-	172	--	< 0.75 U	< 0.75 U	651	< 1.25 UJ	1.1	130 J+	47.9 J+	--
MC1-J28	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J28	0	N	1/6/2009	--	< 0.11 U	807 J+	150	--	< 0.75 U	< 0.75 U	277	< 1.25 U	15.8	857 J+	50.7 J+	--

TABLE B-5
SOIL METALS DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Metals												
				Silicon	Silver	Sodium	Strontium	Sulfur	Thallium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium
MC1-J29	0	FD	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J29	0	FD	1/6/2009	--	0.12 J+	1460 J+	160	--	< 0.75 U	1.1 J+	695	< 1.25 U	2.4	376 J+	33.6 J+	--
MC1-J29	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J29	0	N	1/6/2009	--	< 0.11 U	1480 J+	143	--	< 0.75 U	< 0.75 U	560	< 1.25 U	2.8	417 J+	31.8 J+	--
MC1-J30	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J30	0	N	1/6/2009	--	< 0.11 U	1030 J+	93.5 J	--	3.8	< 0.75 U	300 J	< 1.25 U	7.9	461 J+	125 J+	--
MC1-J31	0	N	1/6/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC1-J31	0	N	1/6/2009	--	< 0.11 U	1650 J+	148	--	4.5	< 0.75 U	297	2.4 J	6.2	523 J+	62.8 J+	--
MC2-AV38C	0	N	4/23/2009	--	0.052 J+	1790	514 J	--	< 0.105 UJ	< 0.75 U	551 J	< 0.185 U	0.95 J	60.7 J	37.3	--
MC2-J32	0	N	4/23/2009	--	0.048 J+	2330	367 J	--	< 0.105 UJ	< 0.75 U	447 J	< 0.185 U	1.6 J	83.2 J	96.8	--
MC2-J33	0	N	4/23/2009	--	0.061 J+	1380	291 J	--	< 0.105 UJ	< 0.75 U	807 J	< 0.185 U	1.3 J	112 J	43.1	--
MC2-J34	0	N	4/23/2009	--	0.12 J+	1200	242 J	--	< 0.105 UJ	< 0.75 U	789 J	< 0.185 U	5.3 J	361 J	116	--
MC2-J35	0	N	4/23/2009	--	0.11 J+	1600	232 J	--	< 0.105 UJ	< 0.75 U	345 J	< 0.185 U	8.3 J	502 J	38.8	--
MC2-J36	0	N	4/23/2009	--	< 0.04 U	1590	279 J	--	< 0.105 UJ	< 0.75 U	367 J	< 0.185 U	5.6 J	487 J	34.4	--
MC2-J37	0	FD	4/23/2009	--	0.11 J+	4020 J	324 J	--	7 J+	< 0.75 U	571 J	3.3	6.9 J	536 J	124	--
MC2-J37	0	N	4/23/2009	--	0.11 J+	2210 J	277 J	--	6.8 J+	< 0.75 U	482 J	2.9	7.1 J	558 J	134	--
MC2-J38	0	N	4/23/2009	--	0.092 J+	2160	283 J	--	4.2 J+	< 0.75 U	616 J	< 0.185 U	4.1 J	309 J	80.3	--
MC2-J39	0	N	4/23/2009	--	0.16 J+	1850	279 J	--	1.5 J+	< 0.75 U	665 J	< 0.185 U	1.9 J	107 J	182	--
MC2-J40	0	N	4/23/2009	--	0.074 J+	1930	292 J	--	4.8 J+	< 0.75 U	438 J	< 0.185 U	6.2 J	291 J	106	--
MC3-J41	0	N	6/18/2009	--	0.13 J	1220 J+	224 J+	--	< 0.105 U	1 J	853 J+	< 0.185 UJ	3.2	270	45.9 J+	--
MC3-J42	0	N	6/18/2009	--	0.049 J	1030 J+	291 J+	--	< 0.105 U	< 0.75 U	369 J+	< 0.185 UJ	1.1	53.9	24.9 J+	--
MC3-J43	0	N	6/18/2009	--	0.079 J	1010 J+	180 J+	--	< 0.105 U	< 0.75 U	260 J+	< 0.185 UJ	6.9	458 A	75.8 J+	--
MC3-J43	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	580	--	--
MC3-J43	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	335 J+, ReA	--	--
MC3-J44	0	N	6/18/2009	--	0.057 J	2880 J+	394 J+	--	< 0.105 U	< 0.75 U	366 J+	< 0.185 UJ	1	62.3	26.2 J+	--
MC3-J45	0	N	6/18/2009	--	0.18 J	1740 J+	309 J+	--	< 0.105 U	< 0.75 U	604 J+	< 0.185 UJ	1.2	87.5	132 J+	--
MC3-J45	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J45	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	FD	6/18/2009	--	0.093 J	2880 J+	333 J+	--	< 0.105 U	< 0.75 U	384 J+	< 0.185 UJ	1	64.1	198 J+	--
MC3-J46	0	FD	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	FD	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	N	6/18/2009	--	0.13 J	2920 J+	308 J+	--	< 0.105 U	< 0.75 U	388 J+	< 0.185 UJ	0.99	72.7	210 J+	--
MC3-J46	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--
MC3-J46	0	N	6/18/2009	--	--	--	--	--	--	--	--	--	--	--	--	--

All units in mg/kg.
-- = no sample data.
(hatched) = Data not included in risk assessment. Sample was re-analyzed (re-analysis value indicated with a 'ReA' qualifier in the table). Original sample (shown in the table) and re-analysis sample(s) were averaged. Average value (shown with an 'A' qualifier in the table) used in the risk assessment.
(shaded) = Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-6
SOIL ORGANOCHLORINE PESTICIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Organochlorine Pesticides											
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	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
MC1-AV37	0	N	6/24/2008	< 0.00031 U	< 0.00021 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AV37	11	N	6/24/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	0.0042	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AV38	0	FD	6/24/2008	< 0.00031 U	0.042 J	< 0.00009 U	0.069 J	0.077 J	< 0.000096 U	< 0.00028 U	< 0.00021 U	0.0063 J	< 0.0023 U	< 0.00017 U	< 0.000092 U
MC1-AV38	0	N	6/24/2008	< 0.00031 U	0.016 J	< 0.000089 U	0.032 J	0.027 J	< 0.000095 U	< 0.00028 U	< 0.00021 U	< 0.00019 UJ	< 0.0023 U	< 0.00017 U	< 0.000091 U
MC1-AV38	11	N	6/24/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AW36	0	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AW36	12	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000097 U
MC1-AW37	0	N	6/25/2008	< 0.00033 U	< 0.00021 U	< 0.000095 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000097 U
MC1-AW37	10	N	6/25/2008	< 0.00034 U	< 0.00022 U	< 0.000098 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.00031 U	< 0.00023 U	< 0.00021 U	< 0.0026 U	< 0.00018 U	< 0.0001 U
MC1-AW38	0	N	6/24/2008	< 0.00031 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AW38	12	N	6/24/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AW39	0	N	6/24/2008	< 0.00031 U	< 0.0002 U	< 0.00009 U	< 0.00019 U	< 0.00021 U	< 0.000096 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-AW39	12	N	6/24/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-AX36	0	N	6/30/2008	< 0.00031 U	0.022	< 0.000091 U	0.024 J+	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AX36	3	N	6/30/2008	< 0.00031 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AX36	13	N	6/30/2008	< 0.00035 U	< 0.00023 U	< 0.0001 U	< 0.00022 U	< 0.00023 U	< 0.00011 U	< 0.00033 U	< 0.00024 U	< 0.00022 U	< 0.0027 U	< 0.00019 U	< 0.00011 U
MC1-AX37	0	N	6/26/2008	< 0.00032 U	0.0039	< 0.000092 U	0.0037	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AX37	10	N	6/26/2008	< 0.00033 U	< 0.00022 U	< 0.000096 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.0003 U	< 0.00023 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000098 U
MC1-AX38	0	N	6/25/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AX38	11	N	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-AX39	0	N	6/23/2008	< 0.00031 U	0.0019	< 0.00009 U	0.0049	0.0027	< 0.000096 U	< 0.00028 U	< 0.00021 U	< 0.00019 U	< 0.0023 U	< 0.00017 U	< 0.000092 U
MC1-AX39	3	N	6/23/2008	< 0.00031 U	< 0.00021 U	< 0.000092 U	0.0024 J+	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AX39	13	N	6/23/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-AX40	0	N	6/23/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AX40	5	N	6/23/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AX40	15	N	6/23/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-AY36	0	FD	7/1/2008	< 0.00031 U	0.013 J	< 0.00009 U	0.019 J	0.0047 J	< 0.000096 U	< 0.00028 U	< 0.00021 U	< 0.00019 U	< 0.0023 U	< 0.00017 U	< 0.000092 U
MC1-AY36	0	N	7/1/2008	< 0.00031 U	< 0.0002 UJ	< 0.00009 U	< 0.00019 UJ	< 0.0002 UJ	< 0.000096 U	< 0.00028 U	< 0.00021 U	< 0.00019 U	< 0.0023 U	< 0.00017 U	< 0.000092 U
MC1-AY36	3	N	7/1/2008	< 0.00034 U	< 0.00022 U	< 0.000099 U	< 0.00021 U	< 0.00022 U	< 0.00011 U	< 0.00031 U	< 0.00023 U	< 0.00021 U	< 0.0026 U	< 0.00018 U	< 0.0001 U
MC1-AY36	13	N	7/1/2008	< 0.00034 U	< 0.00022 U	< 0.0001 U	< 0.00022 U	< 0.00023 U	< 0.00011 U	< 0.00032 U	< 0.00024 U	< 0.00021 U	< 0.0026 U	< 0.00019 U	< 0.0001 U
MC1-AY37	0	N	7/7/2008	< 0.00031 U	0.0036	< 0.00009 U	0.0052	< 0.0002 U	< 0.000096 U	< 0.00028 U	< 0.00021 U	< 0.00019 U	< 0.0023 U	< 0.00017 U	< 0.000092 U
MC1-AY37	4	N	7/7/2008	< 0.00032 U	0.0047	< 0.000093 U	0.0051	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-AY37	14	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AY38	0	N	7/7/2008	< 0.00031 U	0.0038	< 0.000092 U	0.0046	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AY38	11	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-AY39	0	FD	7/7/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AY39	0	N	7/7/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AY39	11	N	7/7/2008	< 0.00035 U	< 0.00023 U	< 0.0001 U	< 0.00022 U	< 0.00023 U	< 0.00011 U	< 0.00032 U	< 0.00024 U	< 0.00021 U	< 0.0026 U	< 0.00019 U	< 0.0001 U
MC1-AZ36	0	N	6/30/2008	< 0.00031 U	0.0035	< 0.000091 U	0.0037	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U

TABLE B-6
SOIL ORGANOCHLORINE PESTICIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	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
MC1-AZ36	3	N	6/30/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-AZ36	13	N	6/30/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0024 U	< 0.00018 U	< 0.000096 U
MC1-AZ37	0	N	6/30/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-AZ37	12	N	6/30/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-BA36	0	N	6/30/2008	< 0.00031 U	< 0.0002 U	< 0.00009 U	< 0.00019 U	< 0.0002 U	< 0.000096 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-BA36	12	N	6/30/2008	< 0.00034 U	< 0.00022 U	< 0.0001 U	< 0.00021 U	< 0.00023 U	< 0.00011 U	< 0.00032 U	< 0.00023 U	< 0.00021 U	< 0.0026 U	< 0.00019 U	< 0.0001 U
MC1-J01	0	FD	6/30/2008	< 0.00033 U	< 0.00022 U	< 0.000098 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.00031 U	< 0.00023 U	< 0.0002 U	< 0.0026 U	< 0.00018 U	< 0.0001 U
MC1-J01	0	N	6/30/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J01	3	N	6/30/2008	< 0.00035 U	< 0.00023 U	< 0.0001 U	< 0.00022 U	< 0.00023 U	< 0.00011 U	< 0.00033 U	< 0.00024 U	< 0.00021 U	< 0.0027 U	< 0.00019 U	< 0.0001 U
MC1-J01	13	N	6/30/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.0003 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J02	0	FD	6/26/2008	< 0.00031 U	0.0021	< 0.000091 U	0.0028	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-J02	0	N	6/26/2008	< 0.00031 U	0.0019	< 0.00009 U	0.0024	< 0.0002 U	< 0.000096 U	< 0.00028 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-J02	8	N	6/26/2008	< 0.00031 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J02	18	N	6/26/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J03	0	N	6/26/2008	< 0.00031 U	0.013	< 0.00009 U	0.021	< 0.0002 U	< 0.000096 U	< 0.00028 U	< 0.00021 U	0.0018	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-J03	6	N	6/26/2008	< 0.00031 U	< 0.00021 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-J03	16	N	6/26/2008	< 0.00035 U	< 0.00023 U	< 0.0001 U	< 0.00022 U	< 0.00023 U	< 0.00011 U	< 0.00033 U	< 0.00024 U	< 0.00021 U	< 0.0027 U	< 0.00019 U	< 0.00011 U
MC1-J04	0	N	6/26/2008	< 0.00031 U	< 0.0002 U	< 0.00009 U	< 0.00019 U	< 0.0002 U	< 0.000096 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-J04	8	N	6/26/2008	< 0.00031 U	< 0.00021 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-J04	18	N	6/26/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J05	0	N	7/1/2008	< 0.00032 U	0.0023	< 0.000094 U	0.0029	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J05	9	N	7/1/2008	< 0.00033 U	< 0.00022 U	< 0.000097 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.00031 U	< 0.00023 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000099 U
MC1-J06	0	N	6/25/2008	< 0.00031 U	< 0.0002 U	< 0.00009 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-J06	8	N	6/25/2008	< 0.00031 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	0.0018	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J06	18	N	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J07	0	N	6/23/2008	< 0.00032 U	0.0023	< 0.000092 U	0.0024 J+	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J07	8	N	6/23/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J07	18	N	6/23/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J08	0	FD	6/23/2008	< 0.00031 U	< 0.0002 U	< 0.00009 U	< 0.00019 U	< 0.0002 U	< 0.000096 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-J08	0	N	6/23/2008	< 0.00032 U	0.0023	< 0.000092 U	0.0027	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J08	9	N	6/23/2008	< 0.00031 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J08	19	N	6/23/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J09	0	N	6/24/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J09	10	N	6/24/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J10	0	N	6/30/2008	< 0.00033 U	< 0.00021 U	< 0.000095 U	< 0.0002 U	< 0.00022 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000097 U
MC1-J10	3	N	6/30/2008	< 0.00034 U	< 0.00022 U	< 0.000099 U	< 0.00021 U	< 0.00022 U	< 0.00011 U	< 0.00031 U	< 0.00023 U	< 0.00021 U	< 0.0026 U	< 0.00019 U	< 0.0001 U
MC1-J10	13	N	6/30/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J11	0	N	6/24/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	0.002	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J11	4	N	6/24/2008	< 0.00033 U	< 0.00021 U	< 0.000095 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000097 U

TABLE B-6
SOIL ORGANOCHLORINE PESTICIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 3 of 6)

Sample ID	Depth (ft bgs)	Sample Type	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
MC1-J11	14	N	6/24/2008	< 0.00031 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J12	0	FD	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J12	0	N	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J12	11	N	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J13	0	N	6/25/2008	< 0.00032 U	0.005	< 0.000092 U	0.0066	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J13	12	N	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J14	0	N	6/25/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-J14	12	N	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000095 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000097 U
MC1-J15	0	FD	6/26/2008	< 0.00031 U	< 0.0002 U	< 0.000091 U	< 0.0002 U	< 0.00021 U	< 0.000097 U	< 0.00029 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000093 U
MC1-J15	0	N	6/26/2008	< 0.00033 U	< 0.00022 U	< 0.000097 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.00031 U	< 0.00023 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000099 U
MC1-J15	11	N	6/26/2008	< 0.00034 U	< 0.00022 U	< 0.000098 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.00031 U	< 0.00023 U	< 0.0002 U	< 0.0026 U	< 0.00018 U	< 0.0001 U
MC1-J16	0	N	6/26/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	0.0019	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J16	3	N	6/26/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J16	13	N	6/26/2008	< 0.00033 U	< 0.00022 U	< 0.000096 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.0003 U	< 0.00023 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000098 U
MC1-J17	0	N	6/25/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J17	10	N	6/25/2008	< 0.00033 U	< 0.00021 U	< 0.000095 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.0003 U	< 0.00023 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000098 U
MC1-J18	0	FD	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000093 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0024 U	< 0.00018 U	< 0.000096 U
MC1-J18	0	N	7/7/2008	< 0.00033 U	< 0.00022 U	< 0.000097 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.00031 U	< 0.00023 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000099 U
MC1-J18	12	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J19	0	N	7/7/2008	< 0.00033 U	< 0.00022 U	< 0.000098 U	< 0.00021 U	< 0.00022 U	< 0.0001 U	< 0.00031 U	< 0.00023 U	< 0.0002 U	< 0.0026 U	< 0.00018 U	< 0.0001 U
MC1-J19	4	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J19	14	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000094 U	< 0.0002 U	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000096 U
MC1-J20	0	N	7/7/2008	< 0.00031 U	0.0032	< 0.00009 U	0.0041	< 0.0002 U	< 0.000096 U	< 0.00028 U	< 0.00021 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000092 U
MC1-J20	10	N	7/7/2008	< 0.00032 U	< 0.00021 U	< 0.000092 U	< 0.0002 U	< 0.00021 U	< 0.000098 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000094 U
MC1-J28	0	N	1/6/2009	< 0.00032 U	0.004	< 0.000092 U	0.004	< 0.00021 U	< 0.000099 U	< 0.00029 U	< 0.00022 U	0.0022	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J29	0	FD	1/6/2009	< 0.00032 U	0.0038 J	< 0.000093 U	0.0048 J	0.0041 J	< 0.000099 U	< 0.00029 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J29	0	N	1/6/2009	< 0.00032 U	< 0.00021 UJ	< 0.000093 U	< 0.0002 UJ	< 0.00021 UJ	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.00019 U	< 0.0024 U	< 0.00017 U	< 0.000095 U
MC1-J30	0	N	1/6/2009	< 0.00032 U	0.0071	< 0.000093 U	0.0019	< 0.00021 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0024 U	< 0.00018 U	< 0.000095 U
MC1-J31	0	N	1/6/2009	< 0.00033 U	0.012	< 0.000095 U	0.0042	< 0.00022 U	< 0.0001 U	< 0.0003 U	< 0.00022 U	< 0.0002 U	< 0.0025 U	< 0.00018 U	< 0.000097 U

All units in mg/kg.
-- = no sample data.

TABLE B-6
SOIL ORGANOCHLORINE PESTICIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Organochlorine Pesticides											
				Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma-Chlordane	Heptachlor	Heptachlor epoxide	Lindane	Methoxychlor	Toxaphene
MC1-AV37	0	N	6/24/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-AV37	11	N	6/24/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AV38	0	FD	6/24/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000083 U	0.0028 J	< 0.00016 U	< 0.000083 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0058 U
MC1-AV38	0	N	6/24/2008	< 0.00011 U	< 0.000093 U	< 0.00026 U	< 0.000083 U	< 0.00018 U	< 0.00016 U	< 0.000083 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 UJ	< 0.0058 U
MC1-AV38	11	N	6/24/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 UJ	< 0.0059 U
MC1-AW36	0	N	7/7/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AW36	12	N	7/7/2008	< 0.00011 U	< 0.000099 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0062 U
MC1-AW37	0	N	6/25/2008	< 0.00011 U	< 0.000099 U	< 0.00028 U	< 0.000089 U	< 0.00019 U	< 0.00017 U	< 0.000089 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0062 U
MC1-AW37	10	N	6/25/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000091 U	< 0.0002 U	< 0.00018 U	< 0.000091 U	< 0.00019 U	< 0.00014 U	< 0.00014 U	< 0.00035 U	< 0.0064 U
MC1-AW38	0	N	6/24/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-AW38	12	N	6/24/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AW39	0	N	6/24/2008	< 0.00011 U	< 0.000094 U	< 0.00027 U	< 0.000084 U	< 0.00018 U	< 0.00017 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-AW39	12	N	6/24/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 UJ	< 0.006 U
MC1-AX36	0	N	6/30/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-AX36	3	N	6/30/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-AX36	13	N	6/30/2008	< 0.00012 U	< 0.00011 U	< 0.0003 U	< 0.000096 U	< 0.00021 U	< 0.00019 U	< 0.000096 U	< 0.0002 U	< 0.00015 U	< 0.00014 U	< 0.00036 U	< 0.0067 U
MC1-AX37	0	N	6/26/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AX37	10	N	6/26/2008	< 0.00011 U	< 0.0001 U	< 0.00028 U	< 0.000089 U	< 0.00019 U	< 0.00018 U	< 0.000089 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0062 U
MC1-AX38	0	N	6/25/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-AX38	11	N	6/25/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-AX39	0	N	6/23/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000084 U	< 0.00018 U	< 0.00016 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0058 U
MC1-AX39	3	N	6/23/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00018 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AX39	13	N	6/23/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-AX40	0	N	6/23/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-AX40	5	N	6/23/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-AX40	15	N	6/23/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AY36	0	FD	7/1/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000084 U	< 0.00018 U	< 0.00016 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0058 U
MC1-AY36	0	N	7/1/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000083 U	< 0.00018 U	< 0.00016 U	< 0.000083 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0058 U
MC1-AY36	3	N	7/1/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000092 U	< 0.0002 U	< 0.00018 U	< 0.000092 U	< 0.00019 U	< 0.00015 U	< 0.00014 U	< 0.00035 U	< 0.0064 U
MC1-AY36	13	N	7/1/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000093 U	< 0.0002 U	< 0.00018 U	< 0.000093 U	< 0.00019 U	< 0.00015 U	< 0.00014 U	< 0.00035 U	< 0.0065 U
MC1-AY37	0	N	7/7/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000084 U	< 0.00018 U	< 0.00016 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0058 U
MC1-AY37	4	N	7/7/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AY37	14	N	7/7/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AY38	0	N	7/7/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00018 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AY38	11	N	7/7/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AY39	0	FD	7/7/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-AY39	0	N	7/7/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-AY39	11	N	7/7/2008	< 0.00012 U	< 0.00011 U	< 0.0003 U	< 0.000094 U	< 0.0002 U	< 0.00019 U	< 0.000094 U	< 0.0002 U	< 0.00015 U	< 0.00014 U	< 0.00036 U	< 0.0066 U
MC1-AZ36	0	N	6/30/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000084 U	< 0.00018 U	< 0.00017 U	< 0.000084 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U

TABLE B-6
SOIL ORGANOCHLORINE PESTICIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Organochlorine Pesticides											
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma-Chlordane	Heptachlor	Heptachlor epoxide	Lindane	Methoxychlor	Toxaphene
MC1-AZ36	3	N	6/30/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-AZ36	13	N	6/30/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-AZ37	0	N	6/30/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000084 U	< 0.00018 U	< 0.00017 U	< 0.000084 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-AZ37	12	N	6/30/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-BA36	0	N	6/30/2008	< 0.00011 U	< 0.000094 U	< 0.00027 U	< 0.000084 U	< 0.00018 U	< 0.00017 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-BA36	12	N	6/30/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000093 U	< 0.0002 U	< 0.00018 U	< 0.000093 U	< 0.00019 U	< 0.00015 U	< 0.00014 U	< 0.00035 U	< 0.0065 U
MC1-J01	0	FD	6/30/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000091 U	< 0.0002 U	< 0.00018 U	< 0.000091 U	< 0.00019 U	< 0.00014 U	< 0.00013 U	< 0.00035 U	< 0.0064 U
MC1-J01	0	N	6/30/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J01	3	N	6/30/2008	< 0.00012 U	< 0.00011 U	< 0.0003 U	< 0.000096 U	< 0.00021 U	< 0.00019 U	< 0.000096 U	< 0.0002 U	< 0.00015 U	< 0.00014 U	< 0.00036 U	< 0.0067 U
MC1-J01	13	N	6/30/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J02	0	FD	6/26/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-J02	0	N	6/26/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000084 U	< 0.00018 U	< 0.00016 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-J02	8	N	6/26/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-J02	18	N	6/26/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J03	0	N	6/26/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000084 U	< 0.00018 U	< 0.00016 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-J03	6	N	6/26/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-J03	16	N	6/26/2008	< 0.00012 U	< 0.00011 U	< 0.0003 U	< 0.000096 U	< 0.00021 U	< 0.00019 U	< 0.000096 U	< 0.0002 U	< 0.00015 U	< 0.00014 U	< 0.00036 U	< 0.0067 U
MC1-J04	0	N	6/26/2008	< 0.00011 U	< 0.000094 U	< 0.00027 U	< 0.000084 U	< 0.00018 U	< 0.00017 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-J04	8	N	6/26/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-J04	18	N	6/26/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J05	0	N	7/1/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J05	9	N	7/1/2008	< 0.00011 U	< 0.0001 U	< 0.00028 U	< 0.00009 U	< 0.00019 U	< 0.00018 U	< 0.00009 U	< 0.00019 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0063 U
MC1-J06	0	N	6/25/2008	< 0.00011 U	< 0.000094 U	< 0.00027 U	< 0.000084 U	< 0.00018 U	< 0.00017 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-J06	8	N	6/25/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-J06	18	N	6/25/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J07	0	N	6/23/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J07	8	N	6/23/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J07	18	N	6/23/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J08	0	FD	6/23/2008	< 0.00011 U	< 0.000094 U	< 0.00027 U	< 0.000084 U	< 0.00018 U	< 0.00017 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-J08	0	N	6/23/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J08	9	N	6/23/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-J08	19	N	6/23/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J09	0	N	6/24/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J09	10	N	6/24/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J10	0	N	6/30/2008	< 0.00011 U	< 0.000099 U	< 0.00028 U	< 0.000089 U	< 0.00019 U	< 0.00017 U	< 0.000089 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0062 U
MC1-J10	3	N	6/30/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000092 U	< 0.0002 U	< 0.00018 U	< 0.000092 U	< 0.00019 U	< 0.00015 U	< 0.00014 U	< 0.00035 U	< 0.0065 U
MC1-J10	13	N	6/30/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J11	0	N	6/24/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J11	4	N	6/24/2008	< 0.00011 U	< 0.0001 U	< 0.00028 U	< 0.000089 U	< 0.00019 U	< 0.00017 U	< 0.000089 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00034 UJ	< 0.0062 U

TABLE B-6
SOIL ORGANOCHLORINE PESTICIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Organochlorine Pesticides											
				Endosulfan I	Endosulfan II	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	gamma-Chlordane	Heptachlor	Heptachlor epoxide	Lindane	Methoxychlor	Toxaphene
MC1-J11	14	N	6/24/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00018 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.006 U
MC1-J12	0	FD	6/25/2008	< 0.00011 U	< 0.000099 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J12	0	N	6/25/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J12	11	N	6/25/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J13	0	N	6/25/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J13	12	N	6/25/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J14	0	N	6/25/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-J14	12	N	6/25/2008	< 0.00011 U	< 0.000099 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0062 U
MC1-J15	0	FD	6/26/2008	< 0.00011 U	< 0.000095 U	< 0.00027 U	< 0.000085 U	< 0.00018 U	< 0.00017 U	< 0.000085 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00032 U	< 0.0059 U
MC1-J15	0	N	6/26/2008	< 0.00011 U	< 0.0001 U	< 0.00028 U	< 0.00009 U	< 0.00019 U	< 0.00018 U	< 0.00009 U	< 0.00019 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0063 U
MC1-J15	11	N	6/26/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000091 U	< 0.0002 U	< 0.00018 U	< 0.000091 U	< 0.00019 U	< 0.00014 U	< 0.00014 U	< 0.00035 U	< 0.0064 U
MC1-J16	0	N	6/26/2008	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J16	3	N	6/26/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J16	13	N	6/26/2008	< 0.00011 U	< 0.0001 U	< 0.00028 U	< 0.00009 U	< 0.00019 U	< 0.00018 U	< 0.00009 U	< 0.00019 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0063 U
MC1-J17	0	N	6/25/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J17	10	N	6/25/2008	< 0.00011 U	< 0.0001 U	< 0.00028 U	< 0.000089 U	< 0.00019 U	< 0.00017 U	< 0.000089 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0062 U
MC1-J18	0	FD	7/7/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J18	0	N	7/7/2008	< 0.00011 U	< 0.0001 U	< 0.00028 U	< 0.00009 U	< 0.00019 U	< 0.00018 U	< 0.00009 U	< 0.00019 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0063 U
MC1-J18	12	N	7/7/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J19	0	N	7/7/2008	< 0.00012 U	< 0.0001 U	< 0.00029 U	< 0.000091 U	< 0.0002 U	< 0.00018 U	< 0.000091 U	< 0.00019 U	< 0.00014 U	< 0.00014 U	< 0.00035 U	< 0.0064 U
MC1-J19	4	N	7/7/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J19	14	N	7/7/2008	< 0.00011 U	< 0.000098 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J20	0	N	7/7/2008	< 0.00011 U	< 0.000094 U	< 0.00026 U	< 0.000084 U	< 0.00018 U	< 0.00016 U	< 0.000084 U	< 0.00017 U	< 0.00013 U	< 0.00012 U	< 0.00032 U	< 0.0059 U
MC1-J20	10	N	7/7/2008	< 0.00011 U	< 0.000096 U	< 0.00027 U	< 0.000086 U	< 0.00018 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J28	0	N	1/6/2009	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000086 U	< 0.00019 U	< 0.00017 U	< 0.000086 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J29	0	FD	1/6/2009	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.006 U
MC1-J29	0	N	1/6/2009	< 0.00011 U	< 0.000097 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J30	0	N	1/6/2009	< 0.00011 U	< 0.000098 U	< 0.00027 U	< 0.000087 U	< 0.00019 U	< 0.00017 U	< 0.000087 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00033 U	< 0.0061 U
MC1-J31	0	N	1/6/2009	< 0.00011 U	< 0.000099 U	< 0.00028 U	< 0.000088 U	< 0.00019 U	< 0.00017 U	< 0.000088 U	< 0.00018 U	< 0.00014 U	< 0.00013 U	< 0.00034 U	< 0.0062 U

All units in mg/kg.
-- = no sample data.

TABLE B-7
SOIL POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Polynuclear Aromatic Hydrocarbons (PAHs)												
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	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
MC1-AV37	0	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AV37	11	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AV38	0	FD	6/24/2008	< 0.018 U	< 0.015 U	< 0.00067 U	< 0.0011 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0037 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AV38	0	N	6/24/2008	< 0.018 U	< 0.015 U	< 0.00067 U	< 0.0011 U	< 0.002 U	< 0.002 U	< 0.0061 U	< 0.0023 U	< 0.0011 U	< 0.0037 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AV38	11	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AW36	0	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AW36	12	N	7/7/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-AW37	0	N	6/25/2008	< 0.019 U	< 0.016 U	< 0.00072 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.004 U	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-AW37	10	N	6/25/2008	< 0.02 U	< 0.017 U	< 0.00074 U	< 0.0013 U	< 0.0022 U	< 0.0022 U	< 0.0067 U	< 0.0025 U	< 0.0012 U	< 0.0041 U	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-AW38	0	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AW38	12	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AW39	0	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AW39	12	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AX36	0	N	6/30/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0062 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AX36	3	N	6/30/2008	< 0.018 UJ	< 0.016 U	< 0.00069 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0063 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AX36	13	N	6/30/2008	< 0.02 UJ	< 0.018 U	< 0.00077 U	< 0.0013 UJ	< 0.0023 UJ	< 0.0023 U	< 0.0071 UJ	< 0.0026 U	< 0.0012 UJ	< 0.0043 UJ	< 0.0022 U	< 0.002 U	< 0.0034 U
MC1-AX37	0	N	6/26/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AX37	10	N	6/26/2008	< 0.019 UJ	< 0.017 U	< 0.00072 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0066 UJ	< 0.0025 U	< 0.0011 UJ	< 0.004 UJ	< 0.0021 U	< 0.0018 U	< 0.0032 U
MC1-AX38	0	N	6/25/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AX38	11	N	6/25/2008	< 0.019 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AX39	0	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0011 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0037 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AX39	3	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AX39	13	N	6/23/2008	< 0.019 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AX40	0	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AX40	5	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AX40	15	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AY36	0	FD	7/1/2008	< 0.018 U	< 0.016 U	< 0.00067 U	< 0.0011 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0037 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AY36	0	N	7/1/2008	< 0.018 U	< 0.015 U	< 0.00067 U	< 0.0011 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0037 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AY36	3	N	7/1/2008	< 0.02 U	< 0.017 U	< 0.00074 U	< 0.0013 U	< 0.0022 U	< 0.0022 U	< 0.0068 U	< 0.0025 U	< 0.0012 U	< 0.0041 UJ	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-AY36	13	N	7/1/2008	< 0.02 U	< 0.017 U	< 0.00075 U	< 0.0013 U	< 0.0022 U	< 0.0022 U	< 0.0069 U	< 0.0026 U	< 0.0012 U	< 0.0042 UJ	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-AY37	0	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.00067 U	< 0.0011 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0037 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AY37	4	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AY37	14	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AY38	0	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AY38	11	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AY39	0	FD	7/7/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 UJ	< 0.002 U	< 0.0018 U	< 0.003 U
MC1-AY39	0	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0038 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AY39	11	N	7/7/2008	< 0.02 U	< 0.018 U	< 0.00076 U	< 0.0013 U	< 0.0022 U	< 0.0022 U	< 0.007 U	< 0.0026 U	< 0.0012 U	< 0.0042 UJ	< 0.0022 U	< 0.0019 U	< 0.0034 U
MC1-AZ36	0	N	6/30/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0062 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U

TABLE B-7
SOIL POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Polynuclear Aromatic Hydrocarbons (PAHs)												
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	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
MC1-AZ36	3	N	6/30/2008	< 0.018 UJ	< 0.016 U	< 0.0007 U	< 0.0012 UJ	< 0.0021 UJ	< 0.002 U	< 0.0064 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AZ36	13	N	6/30/2008	< 0.019 UJ	< 0.016 U	< 0.0007 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0064 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-AZ37	0	N	6/30/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0062 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-AZ37	12	N	6/30/2008	< 0.018 UJ	< 0.016 U	< 0.0007 U	< 0.0012 UJ	< 0.0021 UJ	< 0.002 U	< 0.0064 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-BA36	0	N	6/30/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0062 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-BA36	12	N	6/30/2008	< 0.02 UJ	< 0.017 U	< 0.00075 U	< 0.0013 UJ	< 0.0022 UJ	< 0.0022 U	< 0.0068 UJ	< 0.0026 U	< 0.0012 UJ	< 0.0042 UJ	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-J01	0	FD	6/30/2008	< 0.019 UJ	< 0.017 U	< 0.00073 U	< 0.0013 UJ	< 0.0022 UJ	< 0.0022 U	< 0.0067 UJ	< 0.0025 U	< 0.0012 UJ	< 0.0041 UJ	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-J01	0	N	6/30/2008	< 0.019 UJ	< 0.016 U	< 0.00071 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0065 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J01	3	N	6/30/2008	< 0.02 UJ	< 0.018 U	< 0.00077 U	< 0.0013 UJ	< 0.0023 UJ	< 0.0023 U	< 0.0071 UJ	< 0.0026 U	< 0.0012 UJ	< 0.0043 UJ	< 0.0022 U	< 0.002 U	< 0.0034 U
MC1-J01	13	N	6/30/2008	< 0.019 UJ	< 0.016 U	< 0.0007 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0064 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J02	0	FD	6/26/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0063 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.002 U	< 0.0017 U	< 0.003 U
MC1-J02	0	N	6/26/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0062 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0037 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-J02	8	N	6/26/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J02	18	N	6/26/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J03	0	N	6/26/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0037 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-J03	6	N	6/26/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J03	16	N	6/26/2008	< 0.02 U	< 0.018 U	< 0.00077 U	< 0.0013 U	< 0.0023 U	< 0.0023 U	< 0.0071 U	< 0.0026 U	< 0.0012 U	< 0.0043 U	< 0.0022 U	< 0.002 U	< 0.0034 U
MC1-J04	0	N	6/26/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0062 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-J04	8	N	6/26/2008	< 0.018 UJ	< 0.016 U	< 0.00069 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0063 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J04	18	N	6/26/2008	< 0.018 UJ	< 0.016 U	< 0.0007 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0064 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J05	0	N	7/1/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J05	9	N	7/1/2008	< 0.019 U	< 0.017 U	< 0.00073 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0066 U	< 0.0025 U	< 0.0011 U	< 0.004 UJ	< 0.0021 U	< 0.0019 U	< 0.0032 U
MC1-J06	0	N	6/25/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-J06	8	N	6/25/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J06	18	N	6/25/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J07	0	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J07	8	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J07	18	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J08	0	FD	6/23/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-J08	0	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J08	9	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J08	19	N	6/23/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J09	0	N	6/24/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J09	10	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J10	0	N	6/30/2008	< 0.019 UJ	< 0.016 U	< 0.00071 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0065 UJ	< 0.0024 U	< 0.0011 UJ	< 0.004 UJ	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J10	3	N	6/30/2008	< 0.02 UJ	< 0.017 U	< 0.00075 U	< 0.0013 UJ	< 0.0022 UJ	< 0.0022 U	< 0.0068 UJ	< 0.0025 U	< 0.0012 UJ	< 0.0041 UJ	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-J10	13	N	6/30/2008	< 0.019 UJ	< 0.016 U	< 0.00071 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0065 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J11	0	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J11	4	N	6/24/2008	< 0.019 U	< 0.016 U	< 0.00072 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0066 U	< 0.0024 U	< 0.0011 U	< 0.004 U	< 0.002 U	< 0.0018 U	< 0.0032 U

TABLE B-7
SOIL POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 3 of 3)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Polynuclear Aromatic Hydrocarbons (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
MC1-J11	14	N	6/24/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J12	0	FD	6/25/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J12	0	N	6/25/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J12	11	N	6/25/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J13	0	N	6/25/2008	< 0.018 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J13	12	N	6/25/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J14	0	N	6/25/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0023 U	< 0.0011 U	< 0.0038 U	< 0.002 U	< 0.0017 U	< 0.003 U
MC1-J14	12	N	6/25/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J15	0	FD	6/26/2008	< 0.018 UJ	< 0.016 U	< 0.00068 U	< 0.0012 UJ	< 0.002 UJ	< 0.002 U	< 0.0063 UJ	< 0.0023 U	< 0.0011 UJ	< 0.0038 UJ	< 0.002 U	< 0.0017 U	< 0.003 U
MC1-J15	0	N	6/26/2008	< 0.019 UJ	< 0.017 U	< 0.00073 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0066 UJ	< 0.0025 U	< 0.0011 UJ	< 0.004 UJ	< 0.0021 U	< 0.0019 U	< 0.0032 U
MC1-J15	11	N	6/26/2008	< 0.02 UJ	< 0.017 U	< 0.00074 U	< 0.0013 UJ	< 0.0022 UJ	< 0.0022 U	< 0.0067 UJ	< 0.0025 U	< 0.0012 UJ	< 0.0041 UJ	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-J16	0	N	6/26/2008	< 0.018 UJ	< 0.016 U	< 0.0007 U	< 0.0012 UJ	< 0.0021 UJ	< 0.002 U	< 0.0064 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J16	3	N	6/26/2008	< 0.019 UJ	< 0.016 U	< 0.00071 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0065 UJ	< 0.0024 U	< 0.0011 UJ	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J16	13	N	6/26/2008	< 0.019 UJ	< 0.017 U	< 0.00072 U	< 0.0012 UJ	< 0.0021 UJ	< 0.0021 U	< 0.0066 UJ	< 0.0025 U	< 0.0011 UJ	< 0.004 UJ	< 0.0021 U	< 0.0018 U	< 0.0032 U
MC1-J17	0	N	6/25/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 U	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J17	10	N	6/25/2008	< 0.019 U	< 0.017 U	< 0.00072 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0066 U	< 0.0024 U	< 0.0011 U	< 0.004 U	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J18	0	FD	7/7/2008	< 0.019 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J18	0	N	7/7/2008	< 0.019 U	< 0.017 U	< 0.00073 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0066 U	< 0.0025 U	< 0.0011 U	< 0.004 UJ	< 0.0021 U	< 0.0019 U	< 0.0032 U
MC1-J18	12	N	7/7/2008	< 0.019 U	< 0.016 U	< 0.0007 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0064 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J19	0	N	7/7/2008	< 0.019 U	< 0.017 U	< 0.00074 U	< 0.0013 U	< 0.0022 U	< 0.0022 U	< 0.0067 U	< 0.0025 U	< 0.0012 U	< 0.0041 UJ	< 0.0021 U	< 0.0019 U	< 0.0033 U
MC1-J19	4	N	7/7/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J19	14	N	7/7/2008	< 0.019 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0021 U	< 0.0021 U	< 0.0065 U	< 0.0024 U	< 0.0011 U	< 0.0039 UJ	< 0.002 U	< 0.0018 U	< 0.0032 U
MC1-J20	0	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.00068 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0062 U	< 0.0023 U	< 0.0011 U	< 0.0037 UJ	< 0.0019 U	< 0.0017 U	< 0.003 U
MC1-J20	10	N	7/7/2008	< 0.018 U	< 0.016 U	< 0.00069 U	< 0.0012 U	< 0.002 U	< 0.002 U	< 0.0063 U	< 0.0024 U	< 0.0011 U	< 0.0038 UJ	< 0.002 U	< 0.0018 U	< 0.0031 U
MC1-J28	0	N	1/6/2009	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U	< 0.00173 U
MC1-J29	0	FD	1/6/2009	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U
MC1-J29	0	N	1/6/2009	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U	< 0.00174 U
MC1-J30	0	N	1/6/2009	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U	< 0.00176 U
MC1-J31	0	N	1/6/2009	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U	< 0.00177 U

All units in mg/kg.
-- = no sample data.

TABLE B-8
SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Polychlorinated Biphenyls (PCBs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCB 105 (BZ)	PCB 114 (BZ)	PCB 118 (BZ)
MC1-AV37	0	N	6/24/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0028 U	< 0.0028 U	38	11	89
MC1-AV37	11	N	6/24/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	--	--	--
MC1-AV38	0	FD	6/24/2008	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0027 U	< 0.0027 U	--	--	--
MC1-AV38	0	FD	6/24/2008	--	--	--	--	--	--	--	610 J	190 J	1300 J
MC1-AV38	0	N	6/24/2008	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0027 U	< 0.0027 U	--	--	--
MC1-AV38	0	N	6/24/2008	--	--	--	--	--	--	--	88 J	30 J	170 J
MC1-AV38C	0	N	1/6/2009	--	--	--	--	--	--	--	160	38	290
MC1-AV38NE	0	N	1/6/2009	--	--	--	--	--	--	--	46	11	99
MC1-AV38NW	0	N	1/6/2009	--	--	--	--	--	--	--	31	7.6	66
MC1-AV38SE	0	N	1/6/2009	--	--	--	--	--	--	--	17	7.3	39
MC1-AV38SW	0	N	1/6/2009	--	--	--	--	--	--	--	180	51	390
MC1-AW36	0	N	7/7/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	20	13	43
MC1-AW37	0	N	6/25/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0029 U	< 0.0029 U	9.7	5.1	24
MC1-AW38	0	N	6/24/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0028 U	< 0.0028 U	4.3	2.4	10
MC1-AW38	12	N	6/24/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	--	--	--
MC1-AW39	0	N	6/24/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	470	200	1000
MC1-AX36	0	N	6/30/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	2.6	< 2 U	6.2
MC1-AX36	13	N	6/30/2008	< 0.0057 U	< 0.0057 U	< 0.0057 U	< 0.0057 U	< 0.0057 U	< 0.0031 U	< 0.0031 U	< 2.3 U	< 2.3 U	< 2.3 U
MC1-AX37	0	N	6/26/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	23	14	51
MC1-AX38	0	N	6/25/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	< 2 U	< 2 U	3.2
MC1-AX39	0	N	6/23/2008	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0027 U	< 0.0027 U	380	110	670
MC1-AX39	3	N	6/23/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	9.6	2.7	17
MC1-AX40	0	N	6/23/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	< 2 U	< 2 U	2.7
MC1-AX40	5	N	6/23/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	< 2 U	< 2 U	4.7
MC1-AY36	0	FD	7/1/2008	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0027 U	< 0.0027 U	--	--	--
MC1-AY36	0	FD	7/1/2008	--	--	--	--	--	--	--	240 J	190 J	480 J
MC1-AY36	0	N	7/1/2008	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0027 U	< 0.0027 U	--	--	--
MC1-AY36	0	N	7/1/2008	--	--	--	--	--	--	--	60 J	48 J	150 J
MC1-AY36	3	N	7/1/2008	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.003 U	< 0.003 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-AY36C	0	N	1/6/2009	--	--	--	--	--	--	--	290	230	630
MC1-AY36NE	0	N	1/6/2009	--	--	--	--	--	--	--	190	180	430
MC1-AY36NW	0	N	1/6/2009	--	--	--	--	--	--	--	76	81	180
MC1-AY36SE	0	N	1/6/2009	--	--	--	--	--	--	--	< 2.1 U	< 2.1 U	< 2.1 U
MC1-AY36SW	0	FD	1/6/2009	--	--	--	--	--	--	--	8 J	8.3	19
MC1-AY36SW	0	N	1/6/2009	--	--	--	--	--	--	--	11 J	10	26
MC1-AY37	0	N	7/7/2008	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0027 U	< 0.0027 U	70	57	150
MC1-AY37	4	N	7/7/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-AY38	0	N	7/7/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	36	23	92 J
MC1-AY39	0	FD	7/7/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	13 J	7.3 J	30 J

TABLE B-8
SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Polychlorinated Biphenyls (PCBs)									
				Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCB 105 (BZ)	PCB 114 (BZ)	PCB 118 (BZ)
MC1-AY39	0	N	7/7/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	4.7 J	2.8 J	11 J
MC1-AZ36	0	N	6/30/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	52	49	110
MC1-AZ36	3	N	6/30/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-AZ37	0	N	6/30/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	33	30	74
MC1-BA36	0	N	6/30/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	12	10 J	29 J
MC1-J01	0	FD	6/30/2008	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0029 U	< 0.0029 U	13 J	< 2.2 UJ	43 J
MC1-J01	0	N	6/30/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0028 U	< 0.0028 U	4 J	< 2.1 U	11 J
MC1-J01	3	N	6/30/2008	< 0.0057 U	< 0.0057 U	< 0.0057 U	< 0.0057 U	< 0.0057 U	< 0.0031 U	< 0.0031 U	< 2.3 U	< 2.3 U	< 2.3 U
MC1-J02	0	FD	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	16 J	14 J	36 J
MC1-J02	0	N	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	310 J	210 J	720 J
MC1-J02	8	N	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	2.6 J
MC1-J03	0	N	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	32	22	75
MC1-J03	6	N	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	4.7	3.7	11
MC1-J04	0	N	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	2.2	< 2 U	5.2
MC1-J04	8	N	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J05	0	N	7/1/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0028 U	< 0.0028 U	550	510	1300
MC1-J06	0	N	6/25/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	70	15	160
MC1-J06	8	N	6/25/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J07	0	N	6/23/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J07	8	N	6/23/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	2.7	< 2.1 U	5.9
MC1-J08	0	FD	6/23/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	13 J	4.4 J	27 J
MC1-J08	0	N	6/23/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	22 J	8.3 J	51 J
MC1-J08	9	N	6/23/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J09	0	N	6/24/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J09	10	N	6/24/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	--	--	--
MC1-J10	0	N	6/30/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0029 U	< 0.0029 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J10	3	N	6/30/2008	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.0055 U	< 0.003 U	< 0.003 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-J11	0	N	6/24/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	2.3	< 2.1 U	4.7
MC1-J11	4	N	6/24/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0029 U	< 0.0029 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J12	0	FD	6/25/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0028 U	< 0.0028 U	19 J	4.7	44
MC1-J12	0	N	6/25/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	34 J	4.4	73
MC1-J13	0	N	6/25/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	53	12	120
MC1-J14	0	N	6/25/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	34	6.1	110
MC1-J15	0	FD	6/26/2008	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.0027 U	< 0.0027 U	< 2 U	< 2 U	3.1
MC1-J15	0	N	6/26/2008	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0029 U	< 0.0029 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-J16	0	N	6/26/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	2.5
MC1-J16	3	N	6/26/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J17	0	N	6/25/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J18	0	FD	7/7/2008	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0051 U	< 0.0028 U	< 0.0028 U	120 J	10 J	230 J

TABLE B-8
SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Polychlorinated Biphenyls (PCBs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCB 105 (BZ)	PCB 114 (BZ)	PCB 118 (BZ)
MC1-J18	0	N	7/7/2008	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0053 U	< 0.0029 U	< 0.0029 U	380 J	42 J	720 J
MC1-J19	0	N	7/7/2008	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0054 U	< 0.0029 U	< 0.0029 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-J19	4	N	7/7/2008	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0052 U	< 0.0028 U	< 0.0028 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J20	0	N	7/7/2008	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0049 U	< 0.0027 U	< 0.0027 U	12	4.4	27

Aroclor units in mg/kg; PCB congener units in pg/g.
-- = no sample data.
[grey box] = Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-8
SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 4 of 6)

				Polychlorinated Biphenyls (PCBs)									
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	PCB 123 (BZ)	PCB 126 (BZ)	PCB 156 (BZ)	PCB 157 (BZ)	PCB 167 (BZ)	PCB 169 (BZ)	PCB 189 (BZ)	PCB 209 (BZ)	PCB 77 (BZ)	PCB 81 (BZ)
MC1-AV37	0	N	6/24/2008	< 2.1 U	< 2.1 U	10	2.1	3.6	< 2.1 U	< 2.1 U	450	< 2.1 U	< 2.1 U
MC1-AV37	11	N	6/24/2008	--	--	--	--	--	--	--	--	--	--
MC1-AV38	0	FD	6/24/2008	--	--	--	--	--	--	--	--	--	--
MC1-AV38	0	FD	6/24/2008	< 2 U	23 J	170 J	36 J	63 J	< 2 U	29 J	6100 J	< 2 U	< 2 U
MC1-AV38	0	N	6/24/2008	--	--	--	--	--	--	--	--	--	--
MC1-AV38	0	N	6/24/2008	< 2 U	3.4 J	23 J	4.5 J	6.9 J	< 2 U	3.5 J	980 J	< 2 U	< 2 U
MC1-AV38C	0	N	1/6/2009	< 2.1 U	7.7	35	8.3	12	< 2.1 U	5.6	1200	< 2.1 U	< 2.1 U
MC1-AV38NE	0	N	1/6/2009	< 2.1 U	< 2.1 U	12	2.6	3.9	< 2.1 U	< 2.1 U	390	< 2.1 U	< 2.1 U
MC1-AV38NW	0	N	1/6/2009	< 2.1 U	< 2.1 U	8.1	< 2.1 U	2.6	< 2.1 U	< 2.1 U	260	< 2.1 U	< 2.1 U
MC1-AV38SE	0	N	1/6/2009	< 2 U	< 2 U	4.8	< 2 U	< 2 U	< 2 U	< 2 U	200	< 2 U	< 2 U
MC1-AV38SW	0	N	1/6/2009	< 2.2 U	9.7	47	11	19	< 2.2 U	11	2700 J	< 2.2 U	< 2.2 U
MC1-AW36	0	N	7/7/2008	< 2.1 U	< 2.1 U	5.2	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	200	< 2.1 U	< 2.1 U
MC1-AW37	0	N	6/25/2008	< 2.1 U	< 2.1 U	2.4	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-AW38	0	N	6/24/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	37	< 2.1 U	< 2.1 U
MC1-AW38	12	N	6/24/2008	--	--	--	--	--	--	--	--	--	--
MC1-AW39	0	N	6/24/2008	< 2 U	19	160	33	54	< 2 U	18	3700 J	< 2 U	< 2 U
MC1-AX36	0	N	6/30/2008	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
MC1-AX36	13	N	6/30/2008	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U
MC1-AX37	0	N	6/26/2008	< 2.1 U	< 2.1 U	7.8	< 2.1 U	3.6	< 2.1 U	< 2.1 U	110	< 2.1 U	< 2.1 U
MC1-AX38	0	N	6/25/2008	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	26	< 2 U	< 2 U
MC1-AX39	0	N	6/23/2008	< 2 U	15	110	26	61	< 2 U	15	2200 J	< 2 U	< 2 U
MC1-AX39	3	N	6/23/2008	< 2.1 U	< 2.1 U	2.8	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	59	< 2.1 U	< 2.1 U
MC1-AX40	0	N	6/23/2008	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
MC1-AX40	5	N	6/23/2008	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
MC1-AY36	0	FD	7/1/2008	--	--	--	--	--	--	--	--	--	--
MC1-AY36	0	FD	7/1/2008	< 2 U	8.6 J	66 J	13 J	21 J	< 2 U	11 J	2400 J	< 2 U	< 2 U
MC1-AY36	0	N	7/1/2008	--	--	--	--	--	--	--	--	--	--
MC1-AY36	0	N	7/1/2008	< 2 UJ	2.9 J	16 J	4 J	5.4 J	< 2 U	3.1 J	690 J	< 2 UJ	< 2 UJ
MC1-AY36	3	N	7/1/2008	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-AY36C	0	N	1/6/2009	< 2.1 U	14	79	17	27	< 2.1 U	12	2700 J	< 2.1 U	< 2.1 U
MC1-AY36NE	0	N	1/6/2009	< 2.1 U	11	50	11	21	< 2.1 U	9.5	2200 J	< 2.1 U	< 2.1 U
MC1-AY36NW	0	N	1/6/2009	< 2.1 U	3.7	21	4.3	6.4	< 2.1 U	2.7	570	< 2.1 U	< 2.1 U
MC1-AY36SE	0	N	1/6/2009	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-AY36SW	0	FD	1/6/2009	< 2.1 U	< 2.1 U	2.5	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	88 J	< 2.1 U	< 2.1 U
MC1-AY36SW	0	N	1/6/2009	< 2.1 U	< 2.1 U	3.2	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	110 J	< 2.1 U	< 2.1 U
MC1-AY37	0	N	7/7/2008	< 2 U	2.6	23	4	6.3	< 2 U	2.6	570	< 2 U	< 2 U
MC1-AY37	4	N	7/7/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-AY38	0	N	7/7/2008	< 2.1 U	< 2.1 U	10	2.1	3.3	< 2.1 U	< 2.1 U	180	< 2.1 U	< 2.1 U
MC1-AY39	0	FD	7/7/2008	< 2 U	< 2 U	3.6	< 2 U	< 2 U	< 2 U	< 2 U	120	< 2 U	< 2 U

TABLE B-8
SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Polychlorinated Biphenyls (PCBs)									
				PCB 123 (BZ)	PCB 126 (BZ)	PCB 156 (BZ)	PCB 157 (BZ)	PCB 167 (BZ)	PCB 169 (BZ)	PCB 189 (BZ)	PCB 209 (BZ)	PCB 77 (BZ)	PCB 81 (BZ)
MC1-AY39	0	N	7/7/2008	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	72	< 2 U	< 2 U
MC1-AZ36	0	N	6/30/2008	< 2 U	< 2 U	14	3.3	3.7	< 2 U	< 2 U	260	< 2 U	< 2 U
MC1-AZ36	3	N	6/30/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-AZ37	0	N	6/30/2008	< 2 U	< 2 U	10	2.2	3.4	< 2 U	2.3	450	< 2 U	< 2 U
MC1-BA36	0	N	6/30/2008	< 2 U	< 2 U	3.9	< 2 U	< 2 U	< 2 U	< 2 U	150	< 2 U	< 2 U
MC1-J01	0	FD	6/30/2008	< 2.2 UJ	< 2.2 UJ	2.2	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	35	< 2.2 UJ	< 2.2 UJ
MC1-J01	0	N	6/30/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J01	3	N	6/30/2008	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U
MC1-J02	0	FD	6/26/2008	< 2 U	< 2 UJ	4.9 J	< 2 UJ	2.7 J	< 2 U	< 2 UJ	82 J	< 2 U	< 2 U
MC1-J02	0	N	6/26/2008	< 2 U	11 J	98 J	21 J	42 J	< 2 U	11 J	1400 J	< 2 U	< 2 U
MC1-J02	8	N	6/26/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J03	0	N	6/26/2008	< 2 U	< 2 U	9	2.2	4.3	< 2 U	< 2 U	190	< 2 U	< 2 U
MC1-J03	6	N	6/26/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	27	< 2.1 U	< 2.1 U
MC1-J04	0	N	6/26/2008	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
MC1-J04	8	N	6/26/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J05	0	N	7/1/2008	< 2.1 U	28	190	38	50	< 2.1 U	< 2.1 U	2400	< 2.1 U	< 2.1 U
MC1-J06	0	N	6/25/2008	< 2 U	3	27	5.6	12	< 2 U	2.8	390	< 2 U	< 2 U
MC1-J06	8	N	6/25/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J07	0	N	6/23/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J07	8	N	6/23/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J08	0	FD	6/23/2008	< 2 U	< 2 U	3.6 J	< 2 U	< 2 UJ	< 2 U	< 2 U	95	< 2 U	< 2 U
MC1-J08	0	N	6/23/2008	< 2.1 U	< 2.1 U	6.8 J	< 2.1 U	4.3 J	< 2.1 U	< 2.1 U	150	< 2.1 U	< 2.1 U
MC1-J08	9	N	6/23/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J09	0	N	6/24/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J09	10	N	6/24/2008	--	--	--	--	--	--	--	--	--	--
MC1-J10	0	N	6/30/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J10	3	N	6/30/2008	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-J11	0	N	6/24/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	32	< 2.1 U	< 2.1 U
MC1-J11	4	N	6/24/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J12	0	FD	6/25/2008	< 2.1 U	< 2.1 U	4.5 J	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	88	< 2.1 U	< 2.1 U
MC1-J12	0	N	6/25/2008	< 2.1 U	< 2.1 U	7.6 J	< 2.1 U	2.7	< 2.1 U	< 2.1 U	77	< 2.1 U	< 2.1 U
MC1-J13	0	N	6/25/2008	< 2.1 U	2.4	16	4.2	6.8	< 2.1 U	< 2.1 U	270	< 2.1 U	< 2.1 U
MC1-J14	0	N	6/25/2008	< 2 U	< 2 U	4.4	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
MC1-J15	0	FD	6/26/2008	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
MC1-J15	0	N	6/26/2008	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-J16	0	N	6/26/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J16	3	N	6/26/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J17	0	N	6/25/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J18	0	FD	7/7/2008	< 2.1 U	< 2.1 UJ	16 J	3.7 J	4.6 J	< 2.1 U	< 2.1 U	94 J	< 2.1 U	< 2.1 U

TABLE B-8
SOIL POLYCHLORINATED BIPHENYLS (PCBs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Polychlorinated Biphenyls (PCBs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	PCB 123 (BZ)	PCB 126 (BZ)	PCB 156 (BZ)	PCB 157 (BZ)	PCB 167 (BZ)	PCB 169 (BZ)	PCB 189 (BZ)	PCB 209 (BZ)	PCB 77 (BZ)	PCB 81 (BZ)
MC1-J18	0	N	7/7/2008	< 2.2 U	9.6 J	68 J	17 J	22 J	< 2.2 U	4.2	570 J	< 2.2 U	< 2.2 U
MC1-J19	0	N	7/7/2008	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U
MC1-J19	4	N	7/7/2008	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U
MC1-J20	0	N	7/7/2008	< 2 U	< 2 U	3.2	< 2 U	< 2 U	< 2 U	< 2 U	140	< 2 U	< 2 U

Aroclor units in mg/kg; PCB congener units in pg/g.
-- = no sample data.
= Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-9
SOIL RADIONUCLIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Radionuclides							
				Radium-226	Radium-228	Thorium-228	Thorium-230	Thorium-232	Uranium-233/234	Uranium-235/236	Uranium-238
MC1-AV37	0	N	6/24/2008	0.748	1.06	2.26	1 U	1.44	1 U	0.0391 U	0.865
MC1-AV37	11	N	6/24/2008	0.645	1.24	1.59	1.04	1.1	1.12	0.133 U	1.03
MC1-AV38	0	FD	6/24/2008	11.2	2.37	2.23	2.36	1.9	2.54 J	0.0259 U	2.15
MC1-AV38	0	N	6/24/2008	7.78	1.61	2.06	2.29	1.53	1.48 J	0.0547 U	1.53
MC1-AV38	11	N	6/24/2008	0.7	1.42	1.7	1.55	1.08	1.73	0.0946 U	1.34
MC1-AV38C	0	N	1/6/2009	3.49	1.43	1.65	1.42	0.94	3.85	0.328	3.07
MC1-AW36	0	N	7/7/2008	3.11	2.05	2.04	2.04	1.34	2.18	0.194 U	1.71
MC1-AW36	12	N	7/7/2008	1.2	1.02	1.58	1.51	1.44	1.12	0.18 U	1.3
MC1-AW37	0	N	6/25/2008	1.3	2.22	1.8	1.39	1.75	2.13	0.236	1.77
MC1-AW37	10	N	6/25/2008	0.59	1.19	1.55	1 U	1.77	1.27	0.0649 U	0.86
MC1-AW38	0	N	6/24/2008	0.613	1.68	1.43	1 U	1	2.15	0.145	2.46
MC1-AW38	12	N	6/24/2008	0.887	0.722 U	1.89	1.21	1.45	1.32	0.126 U	1.18
MC1-AW39	0	N	6/24/2008	0.852	1.46	2.43	1 U	1.39	1.04	0.139 U	0.848
MC1-AW39	12	N	6/24/2008	0.692	1.21	2.58	1.16	1.93	1.22	0.0608 U	0.943
MC1-AX36	0	N	6/30/2008	1.14	1.55	1.76	0.611	1.32	0.409 U	0.00309 U	0.831
MC1-AX36	3	N	6/30/2008	1.48	1.44	1.45	0.722	1.4	1 U	0.00994 U	0.654
MC1-AX36	13	N	6/30/2008	1.27	1.48	1.22	1.38	1.43	1.35	0.229 U	0.936
MC1-AX37	0	N	6/26/2008	1.16	0.682 U	1.5	0.549	1.06	1.09	0.213	0.338
MC1-AX37	10	N	6/26/2008	1.58	0.813 U	1.31	1.99	1.23	1.69	0.18 U	1.43
MC1-AX38	0	N	6/25/2008	0.791	1.46	2.05	1.08	0.96	1 U	0.0732 U	0.592
MC1-AX38	11	N	6/25/2008	1.06	1.41	1.47	1.69	1.45	2.09	0.157	1.33
MC1-AX39	0	N	6/23/2008	1.28	0.743 U	1.34	1 U	1.23	0.805	-0.126 U	0.241 U
MC1-AX39	3	N	6/23/2008	1.24	2.86	1.96	1 U	1.59	1.15	0.0584 U	0.147 U
MC1-AX39	13	N	6/23/2008	2.81	0.954	1.41	2.19	0.675	1.58	0.185 U	1.86
MC1-AX40	0	N	6/23/2008	1.19	0.74 U	1.95	1 U	1.34	0.608 U	-0.0518 U	1.09
MC1-AX40	5	N	6/23/2008	1.48	1.27	1.56	1 U	1.41	1.01	0.165 U	0.63
MC1-AX40	15	N	6/23/2008	2.62 A	1.16 A	1.34 A	2.94 A	1.195 A	4.45 A	0.212 A	3.02 A
MC1-AX40	15	N	6/23/2008	4.13	1.1	1.17	3.5	1.18	5.7	0.306 U	3.66
MC1-AX40	15	N	6/23/2008	1.11 ReA	1.22 ReA	1.51 ReA	2.38 ReA	1.21 ReA	3.2 ReA	0.118 ReA	2.38 ReA
MC1-AY36	0	FD	7/1/2008	1.38	2.14	2.06 J	1.35	1.95 J	1.07	-0.0341 U	1.23
MC1-AY36	0	N	7/1/2008	1.48	1.64	3.09 J	2.06	3.17 J	1.26	0.234 U	1.24
MC1-AY36	3	N	7/1/2008	1.09	1.72	1.46 J	2.4	1.79 J	1 U	0.175 U	1 U
MC1-AY36	13	N	7/1/2008	1.04	2.27	1.93 J	1.15	1.08 J	1.09	0.0813 U	1 U
MC1-AY36C	0	N	1/6/2009	1.07	1.3	2.67	1.27	1.84	0.941	0.024 U	0.693
MC1-AY37	0	N	6/27/2008	1 U	2.68	1.5	1.21	1.31 J	1.05	0.156 U	0.851
MC1-AY37	4	N	6/27/2008	1 U	2.35	2.2	1.44	1.58 J	1 U	0.0926 U	0.727
MC1-AY37	14	N	6/27/2008	1.21	1.54	1.79	1.78	1.16 J	1.57	0.177	1.36
MC1-AY38	0	N	6/27/2008	1.02	1.47	2.53	1.06	2.14 J	1.24	0.281	0.84
MC1-AY38	11	N	6/27/2008	1 U	2.45	2.1	0.96	1.06 J	1 U	0.0227 U	0.987
MC1-AY39	0	FD	6/27/2008	1 U	2.2 J	2	1.25	1.31 J	1 U	0.176	0.568
MC1-AY39	0	N	6/27/2008	1.52	0.141 UJ	1.91	1.5	1.14 J	1 U	0.127 U	0.513
MC1-AY39	11	N	6/27/2008	1.26	2.02	1.79	1.12	1.68 J	1.94	0.0952 U	1.49
MC1-AZ36	0	N	6/30/2008	1.14	0.36 U	2.43	1.23	1.53	1 U	-0.0377 U	0.876
MC1-AZ36	3	N	6/30/2008	0.691	1.36	1.43	1.24	1.62	1 U	0.247 U	1.07
MC1-AZ36	13	N	6/30/2008	1.62	1.71	1.68	1.5	1.68	1.9	0.134 U	1.47
MC1-AZ37	0	N	6/30/2008	1.56	2.16	1.9	1.27	1.61	1 U	-0.107 U	0.91
MC1-AZ37	12	N	6/30/2008	1.47	1.07	1.69	1.84	1.45	2.97	0.149 U	1.63
MC1-BA36	0	N	6/30/2008	0.883	1.25	2.36	1.22	1.87	1 U	0.0306 U	0.812
MC1-BA36	12	N	6/30/2008	1.48	2.15	1.59	1.42	1.48	1.25	0.15	1.18
MC1-J01	0	FD	6/30/2008	1.18	1.16	2.4	0.909	1.2	1 U	0.177	0.692
MC1-J01	0	N	6/30/2008	1.2	1.45	2.33	0.945	1.24	1 U	0.0511 U	0.553
MC1-J01	3	N	6/30/2008	1.47	1.17	1.71	0.831	1.55	1.01	0.0834 U	0.907
MC1-J01	13	N	6/30/2008	1.73	1.14	1.95	1.92	1.67	1.31	0.213	1.37
MC1-J02	0	FD	6/26/2008	0.856	2.37 J	1.8	1.13	1.24	0.769	-0.0276 U	0.543
MC1-J02	0	N	6/26/2008	0.77	1.19 J	1.65	1.6	1.62	0.718	0.22	1.01
MC1-J02	8	N	6/26/2008	0.609	1.17	2.14	1.02	1.8	1.06	0.0561 U	0.876
MC1-J02	18	N	6/26/2008	1.02	0.315 U	1.61	0.994	1.04	1.09	0.193	0.875
MC1-J03	0	N	6/26/2008	0.92	1.73	1.49	0.706	0.962	0.745	0.0105 U	0.694

TABLE B-9
SOIL RADIONUCLIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Radionuclides							
				Radium-226	Radium-228	Thorium-228	Thorium-230	Thorium-232	Uranium-233/234	Uranium-235/236	Uranium-238
MC1-J03	6	N	6/26/2008	0.735	1.53	1.8	0.838	1.5	0.856	0.0257 U	1.07
MC1-J03	16	N	6/26/2008	1.09	1.26	1.5	1.08	1.45	1.37	0.0124 U	1.07
MC1-J04	0	N	6/26/2008	1.03	1.4	1.73	0.747	1.63	1.18	0.133	0.966
MC1-J04	8	N	6/26/2008	0.967	1.41	2.07	1.04	1.42	1.03	0.069 U	0.824
MC1-J04	18	N	6/26/2008	0.862	0.874	1.07 U	1.04	0.858	1.02	0.188 U	0.929
MC1-J05	0	N	6/27/2008	1.1	1.89	1.31	1	0.741 J	1 U	0.125	0.651
MC1-J05	9	N	6/27/2008	1.51	1.4	1.52	2.07	0.779 J	2.69	0.107 U	1.91
MC1-J06	0	N	6/25/2008	1.14	2.1	1.83	1.26	1.83	1.33	0.127 U	0.903
MC1-J06	8	N	6/25/2008	0.781	0.987	1.6	1.18	1.5	1.4	0.18 U	0.962
MC1-J06	18	N	6/25/2008	1.69	1.32	1.45	2.45	1.25	1.6	0.102	1.38
MC1-J07	0	N	6/23/2008	1 U	1.51	1.56	1.15	1.85	0.896	-0.0327 U	0.744
MC1-J07	8	N	6/23/2008	1.24	3.12	1.52	1 U	1.09	1.14	0.0611 U	0.814
MC1-J07	18	N	6/23/2008	1.62	1	1.56	1.29	1.02	0.504	-0.0153 U	0.708
MC1-J08	0	FD	6/23/2008	1.1	0.886	1.15	1 U	1.35	1.16	0.134 U	0.849
MC1-J08	0	N	6/23/2008	1.16	1.37	1.43	1 U	1.1	0.8	0 U	0.401
MC1-J08	9	N	6/23/2008	1.2	1.42	1.18	1 U	1.13	1.08	-0.048 U	0.913
MC1-J08	19	N	6/23/2008	1.65	2.13	1.82	1.4	1.3	1.84	0.0958 U	1.46
MC1-J09	0	N	6/24/2008	0.83 U	2.08	2.08	1.33	1.31	0.83	0.0641 U	0.746
MC1-J09	10	N	6/24/2008	1.1	1.02	1.8	2.19	1.11	2.44	0.0517 U	1.79
MC1-J10	0	N	6/30/2008	1.25	2.27	2.18	0.933	1.56	1 U	0.129	0.752
MC1-J10	3	N	6/30/2008	0.783	2.35	2.12	1.39	1.45	1 U	0.117 U	1.09
MC1-J10	13	N	6/30/2008	0.923	2.03	1.86	1.01	1.4	1.71	0.212	1.25
MC1-J11	0	N	6/24/2008	0.745	1.31	1.9	1 U	1.67	2.85	0.282	2.4
MC1-J11	4	N	6/24/2008	1.11	1.65	1.45	1.21	1.51	2.11	0.0902	0.876
MC1-J11	14	N	6/24/2008	0.635	1.27	1.73	1.06	1.44	1.3	0.0868 U	0.783
MC1-J12	0	FD	6/25/2008	0.928	1.15	2.3	1.41	1.88	1 U	0.0606 U	0.976
MC1-J12	0	N	6/25/2008	0.96	1.95	1.5	1.2	1.19	1 U	0.128 U	0.725
MC1-J12	11	N	6/25/2008	1.39	1.91	1.68	2.79	1.07	2.2	0.0896 U	1.57
MC1-J13	0	N	6/25/2008	0.739	1.48	2.11	1.62	1.68	1 U	0.0107 U	0.853
MC1-J13	12	N	6/25/2008	0.942	1.25	1.29	1.42	1.04	1.18	0.143 U	0.962
MC1-J14	0	N	6/25/2008	0.741	2.68	1.2	1 U	1.3	1 U	0.0906 U	0.904
MC1-J14	12	N	6/25/2008	0.658	1.64	1.26	1.36	1.47	1.33	0.0378 U	1.46
MC1-J15	0	FD	6/26/2008	0.554	0.156 UJ	1.44	1.27	1.26	0.976	0.0623 U	0.957
MC1-J15	0	N	6/26/2008	0.51	1.95 J	1.97	0.777	1.63	0.842	0.0883 U	0.868
MC1-J15	11	N	6/26/2008	0.971	0.914	0.97	1.44	1.25	0.915	0.194	0.856
MC1-J16	0	N	6/26/2008	0.978	1.98	1.12	0.767	1.4	0.807	0.0902 U	0.945
MC1-J16	3	N	6/26/2008	1.16	1.69	1.59	1.27	1.44	0.769	-0.00771 U	0.598
MC1-J16	13	N	6/26/2008	1.16	2.68	2.05	0.782	1.47	1.21	0.0337 U	0.785
MC1-J17	0	N	6/25/2008	0.5	2.12	1.27	1 U	1.18	1 U	0.0985 U	0.541
MC1-J17	10	N	6/25/2008	0.578	2.04	2.41	1.94	1.56	2.22	0.132 U	1.48
MC1-J18	0	FD	7/7/2008	0.979	1.35	2.02	0.683	1.9	1.15	0.0404 U	0.572
MC1-J18	0	N	7/7/2008	1.1	1.87	2.46	1.04	1.59	1.04	0.113 U	0.77
MC1-J18	12	N	7/7/2008	1.01	0.547 U	1.86	1.47	1.56	1.02	0.093 U	0.877
MC1-J19	0	N	7/7/2008	1.13	1.73	1.85	0.801	1.46	1.09	0 U	0.53
MC1-J19	4	N	7/7/2008	0.982	1.56	2.05	0.651	1.33	0.842	-0.0199 U	1.08
MC1-J19	14	N	7/7/2008	0.95	0.799	1.35	1.02	1.28	1.24	1 U	1.12
MC1-J20	0	N	6/27/2008	1 U	1.2	1.7	0.999	1.33 J	1 U	0.152	0.561
MC1-J20	10	N	6/27/2008	1 U	0.759 U	1.88	2.4	1.18 J	1.91	0.193	1.67
MC1-J28	0	N	1/6/2009	1 U	1.7	2.72	0.811	2.47	4.07	0.309	3.52
MC1-J29	0	FD	1/6/2009	6.38	1.54	2.01	1.23	1.47	2.36	0.269	2.61
MC1-J29	0	N	1/6/2009	7.23	1.91	3.57	2.43	2.19	2.09	0.184	2.31
MC1-J30	0	N	1/6/2009	1.27	2.31	1.73	0.884	1.74	5.84	0.458	5.71
MC1-J31	0	N	1/6/2009	1 U	0.967	1.41	1.44	1.23	2.71	0.0946 U	2.77
MC2-AV38C	0	N	4/23/2009	1.85	1.69	1.08	1 U	0.937	0.4 U	-0.0204 U	1.03
MC2-J32	0	N	4/23/2009	0.829	1.59	2.18	1 U	1.53	1.18	0.0563 U	1.49
MC2-J33	0	N	4/23/2009	1.27	2.27	1.12	1 U	1.43	0.815	0.0428 U	0.951
MC2-J34	0	N	4/23/2009	1.22	1.61	1.82	1 U	1.58	2.79	0.0833 U	1.8
MC2-J35	0	N	4/23/2009	1.45	0.524 U	1.95	1.37	1.32	4.5	0.175 U	5.31

TABLE B-9
SOIL RADIONUCLIDES DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Radionuclides							
				Radium-226	Radium-228	Thorium-228	Thorium-230	Thorium-232	Uranium-233/234	Uranium-235/236	Uranium-238
MC2-J36	0	N	4/23/2009	0.804	0.899	1.72	1 U	0.899	2.92	0.0599 U	2.55
MC2-J37	0	FD	4/23/2009	1.32	1.59	1.41	1 U	1.2	3.3	0.546	3.14
MC2-J37	0	N	4/23/2009	1.4	1.51	2.09	1 U	1.11	3.92	0.0451 U	3.74
MC2-J38	0	N	4/23/2009	1.22	1.38	1.51	2	1.73	5.28	0.209 U	4.84
MC2-J39	0	N	4/23/2009	0.623	1.85	2.59	1 U	2.26	1.65	-0.0641 U	1.03
MC2-J40	0	N	4/23/2009	0.921	1.78	1.73	1.05	1.09	4.87	0.356	4.93
MC3-J41	0	N	6/18/2009	1.03	1.55	1.74	1.12	0.993	1.18	-0.018 U	0.957
MC3-J42	0	N	6/18/2009	0.479	1.99	0.873	1.28	0.779	0.822	0.148 U	0.99
MC3-J43	0	N	6/18/2009	0.77	1.68	0.809	0.9	1.19	2.16	0.236	2.34
MC3-J44	0	N	6/18/2009	0.567	2.21	1.39	0.524	1.18	0.826	-0.0504 U	0.634
MC3-J45	0	N	6/18/2009	0.639	2.82	1.41	0.583	1.39	0.833	0.162 U	0.82
MC3-J46	0	FD	6/18/2009	0.631	1.46 J	0.814	0.37 U	1.62	0.797	-0.041 U	0.813
MC3-J46	0	N	6/18/2009	0.721	3.02 J	1.24	0.991	1.19	0.711	0 U	0.73

All units in pCi/g.

-- = no sample data.

[hatched box] = Data not included in risk assessment. Sample was re-analyzed (re-analysis value indicated with a 'ReA' qualifier in the table). Original sample (shown in the table) and re-analysis sample(s) were averaged. Average value (shown with an 'A' qualifier in the table) used in the risk assessment.

[gray box] = Data not included in risk assessment. Sample location excavated and data replaced with post-excavation data.

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				1,2,4,5-Tetrachloro-benzene	1,2-Diphenylhydrazine	1,4-Dioxane	2,2'-/4,4'-Dichlorobenzil	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene
MC1-AV37	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AV37	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AV38	0	FD	6/24/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.33 U	< 0.033 U
MC1-AV38	0	N	6/24/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.34 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.33 U	< 0.033 U
MC1-AV38	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AW36	0	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AW36	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-AW37	0	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.39 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.35 U	< 0.036 U
MC1-AW37	10	N	6/25/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.41 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.36 U	< 0.037 U
MC1-AW38	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AW38	12	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AW39	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-AW39	12	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AX36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AX36	3	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.39 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AX36	13	N	6/30/2008	< 0.039 U	< 0.039 U	< 0.039 U	< 0.36 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.38 U	< 0.039 U
MC1-AX37	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AX37	10	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.38 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.35 U	< 0.036 U
MC1-AX38	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.37 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AX38	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-AX39	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-AX39	3	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AX39	13	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-AX40	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AX40	5	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AX40	15	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.37 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AY36	0	FD	7/1/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.36 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-AY36	0	N	7/1/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.33 U	< 0.033 U
MC1-AY36	3	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.37 U	< 0.037 U
MC1-AY36	13	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.34 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.37 U	< 0.037 U
MC1-AY37	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-AY37	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AY37	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AY38	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AY38	11	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AY39	0	FD	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AY39	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AY39	11	N	7/7/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.38 U	< 0.038 U
MC1-AZ36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				1,2,4,5-Tetrachloro-benzene	1,2-Diphenylhydrazine	1,4-Dioxane	2,2'-/4,4'-Dichlorobenzil	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene
MC1-AZ36	3	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-AZ36	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-AZ37	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-AZ37	12	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.37 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-BA36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-BA36	12	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.37 U	< 0.037 U
MC1-J01	0	FD	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.35 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.36 U	< 0.037 U
MC1-J01	0	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J01	3	N	6/30/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.35 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.38 U	< 0.038 U
MC1-J01	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.36 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J02	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J02	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-J02	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J02	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.37 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J03	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.37 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-J03	6	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.38 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J03	16	N	6/26/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.35 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.38 U	< 0.038 U
MC1-J04	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-J04	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.36 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J04	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J05	0	N	7/1/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.36 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J05	9	N	7/1/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.37 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.36 U	< 0.036 U
MC1-J06	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J06	8	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J06	18	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.38 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J07	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J07	8	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J07	18	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J08	0	FD	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.36 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-J08	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J08	9	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J08	19	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J09	0	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J09	10	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J10	0	N	6/30/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.35 U	< 0.036 U
MC1-J10	3	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.37 U	< 0.037 U
MC1-J10	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J11	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J11	4	N	6/24/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.37 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.35 U	< 0.036 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Semi-Volatile Organic Compounds (SVOCs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	1,2,4,5-Tetrachloro-benzene	1,2-Diphenylhydrazine	1,4-Dioxane	2,2'-/4,4'-Dichlorobenzil	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene
MC1-J11	14	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.38 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J12	0	FD	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J12	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.38 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J12	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J13	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J13	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.38 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J14	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.36 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J14	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J15	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J15	0	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.36 U	< 0.036 U
MC1-J15	11	N	6/26/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.36 U	< 0.037 U
MC1-J16	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U
MC1-J16	3	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J16	13	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.37 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.36 U	< 0.036 U
MC1-J17	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.38 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J17	10	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.39 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.35 U	< 0.036 U
MC1-J18	0	FD	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J18	0	N	7/7/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.34 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.36 U	< 0.036 U
MC1-J18	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J19	0	N	7/7/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.35 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.36 U	< 0.037 U
MC1-J19	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.36 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J19	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.35 U	< 0.035 U
MC1-J20	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.33 U	< 0.034 U
MC1-J20	10	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.35 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.34 U	< 0.034 U
MC1-J28	0	N	1/6/2009	< 0.0691 U	< 0.0691 U	< 0.0691 UJ	< 0.114 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.131 U	< 0.0346 U
MC1-J29	0	FD	1/6/2009	< 0.0696 U	< 0.0696 U	< 0.0696 UJ	< 0.115 U	< 0.0696 U	< 0.0696 U	< 0.0696 U	< 0.0696 U	< 0.132 U	< 0.0348 U
MC1-J29	0	N	1/6/2009	< 0.0701 U	< 0.0701 U	< 0.0701 UJ	< 0.116 U	< 0.0701 U	< 0.0701 U	< 0.0701 U	< 0.0701 U	< 0.133 U	< 0.0351 U
MC1-J30	0	N	1/6/2009	< 0.0704 U	< 0.0704 U	< 0.0704 UJ	< 0.116 U	< 0.0704 U	< 0.0704 U	< 0.0704 U	< 0.0704 U	< 0.134 U	< 0.0352 U
MC1-J31	0	N	1/6/2009	< 0.0708 U	< 0.0708 U	< 0.0708 UJ	< 0.117 U	< 0.0708 U	< 0.0708 U	< 0.0708 U	< 0.0708 U	< 0.135 U	< 0.0354 U

All units in mg/kg.
-- = no sample data.

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
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BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Methylphenol & 4-Methylphenol	3-Nitroaniline	4-Bromophenyl phenyl ether
MC1-AV37	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AV37	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-AV38	0	FD	6/24/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.067 U	< 0.033 U	< 0.033 U
MC1-AV38	0	N	6/24/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.067 U	< 0.033 U	< 0.033 U
MC1-AV38	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AW36	0	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AW36	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.071 U	< 0.035 U	< 0.035 U
MC1-AW37	0	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.071 U	< 0.036 U	< 0.036 U
MC1-AW37	10	N	6/25/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.073 U	< 0.037 U	< 0.037 U
MC1-AW38	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-AW38	12	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-AW39	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AW39	12	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AX36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AX36	3	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-AX36	13	N	6/30/2008	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.077 U	< 0.039 U	< 0.039 U
MC1-AX37	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AX37	10	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.072 U	< 0.036 U	< 0.036 U
MC1-AX38	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AX38	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-AX39	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-AX39	3	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-AX39	13	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-AX40	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AX40	5	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AX40	15	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AY36	0	FD	7/1/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-AY36	0	N	7/1/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.067 U	< 0.033 U	< 0.033 U
MC1-AY36	3	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.074 U	< 0.037 U	< 0.037 U
MC1-AY36	13	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.075 U	< 0.037 U	< 0.037 U
MC1-AY37	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-AY37	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AY37	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AY38	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-AY38	11	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AY39	0	FD	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AY39	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AY39	11	N	7/7/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.076 U	< 0.038 U	< 0.038 U
MC1-AZ36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Semi-Volatile Organic Compounds (SVOCs)									
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Methylphenol & 4-Methylphenol	3-Nitroaniline	4-Bromophenyl phenyl ether
MC1-AZ36	3	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-AZ36	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-AZ37	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-AZ37	12	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-BA36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-BA36	12	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.075 U	< 0.037 U	< 0.037 U
MC1-J01	0	FD	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.073 U	< 0.037 U	< 0.037 U
MC1-J01	0	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.071 U	< 0.035 U	< 0.035 U
MC1-J01	3	N	6/30/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.077 U	< 0.038 U	< 0.038 U
MC1-J01	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J02	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-J02	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-J02	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-J02	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J03	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-J03	6	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-J03	16	N	6/26/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.077 U	< 0.038 U	< 0.038 U
MC1-J04	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-J04	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-J04	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J05	0	N	7/1/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.071 U	< 0.035 U	< 0.035 U
MC1-J05	9	N	7/1/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.072 U	< 0.036 U	< 0.036 U
MC1-J06	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-J06	8	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J06	18	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J07	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J07	8	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J07	18	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J08	0	FD	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-J08	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J08	9	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J08	19	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J09	0	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J09	10	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J10	0	N	6/30/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.071 U	< 0.036 U	< 0.036 U
MC1-J10	3	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.074 U	< 0.037 U	< 0.037 U
MC1-J10	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J11	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J11	4	N	6/24/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.071 U	< 0.036 U	< 0.036 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Semi-Volatile Organic Compounds (SVOCs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylnaphthalene	2-Nitroaniline	2-Nitrophenol	3,3'-Dichlorobenzidine	3-Methylphenol & 4-Methylphenol	3-Nitroaniline	4-Bromophenyl phenyl ether
MC1-J11	14	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J12	0	FD	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.071 U	< 0.035 U	< 0.035 U
MC1-J12	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J12	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J13	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J13	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J14	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-J14	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.071 U	< 0.035 U	< 0.035 U
MC1-J15	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.068 U	< 0.034 U	< 0.034 U
MC1-J15	0	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.072 U	< 0.036 U	< 0.036 U
MC1-J15	11	N	6/26/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.073 U	< 0.037 U	< 0.037 U
MC1-J16	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.069 U	< 0.035 U	< 0.035 U
MC1-J16	3	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J16	13	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.072 U	< 0.036 U	< 0.036 U
MC1-J17	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J17	10	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.071 U	< 0.036 U	< 0.036 U
MC1-J18	0	FD	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J18	0	N	7/7/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.072 U	< 0.036 U	< 0.036 U
MC1-J18	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J19	0	N	7/7/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.073 U	< 0.037 U	< 0.037 U
MC1-J19	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J19	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.07 U	< 0.035 U	< 0.035 U
MC1-J20	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.067 U	< 0.034 U	< 0.034 U
MC1-J20	10	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.069 U	< 0.034 U	< 0.034 U
MC1-J28	0	N	1/6/2009	< 0.0346 U	< 0.0121 U	< 0.0691 U	< 0.00691 U	< 0.0691 U	< 0.0346 U	< 0.104 U	< 0.138 U	< 0.0691 UJ	< 0.0346 U
MC1-J29	0	FD	1/6/2009	< 0.0348 U	< 0.0122 U	< 0.0696 U	< 0.00696 U	< 0.0696 U	< 0.0348 U	< 0.104 U	< 0.139 U	< 0.0696 UJ	< 0.0348 U
MC1-J29	0	N	1/6/2009	< 0.0351 U	< 0.0123 U	< 0.0701 U	< 0.00701 U	< 0.0701 U	< 0.0351 U	< 0.105 U	< 0.14 U	< 0.0701 UJ	< 0.0351 U
MC1-J30	0	N	1/6/2009	< 0.0352 U	< 0.0123 U	< 0.0704 U	< 0.00704 U	< 0.0704 U	< 0.0352 U	< 0.106 U	< 0.141 U	< 0.0704 UJ	< 0.0352 U
MC1-J31	0	N	1/6/2009	< 0.0354 U	< 0.0124 U	< 0.0708 U	< 0.00708 U	< 0.0708 U	< 0.0354 U	< 0.106 U	< 0.142 U	< 0.0708 UJ	< 0.0354 U

All units in mg/kg.
-- = no sample data.

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Semi-Volatile Organic Compounds (SVOCs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	4-Chloro-3-Methylphenol	4-Chlorophenyl phenyl ether	4-Chlorothioanisole	4-Nitrophenol	Acetophenone	Aniline	Azobenzene	Benzenethiol	Benzoic acid	Benzyl alcohol
MC1-AV37	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AV37	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AV38	0	FD	6/24/2008	< 0.033 U	< 0.033 U	< 0.0077 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.12 U	< 0.033 U	< 0.033 U
MC1-AV38	0	N	6/24/2008	< 0.033 U	< 0.033 U	< 0.0076 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.12 U	< 0.033 U	< 0.033 U
MC1-AV38	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AW36	0	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AW36	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.0081 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AW37	0	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.0081 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-AW37	10	N	6/25/2008	< 0.037 U	< 0.037 U	< 0.0084 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-AW38	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AW38	12	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AW39	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-AW39	12	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AX36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AX36	3	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AX36	13	N	6/30/2008	< 0.039 U	< 0.039 U	< 0.0088 U	< 0.38 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.14 U	< 0.039 U	< 0.039 U
MC1-AX37	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AX37	10	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.0082 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-AX38	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AX38	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AX39	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-AX39	3	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AX39	13	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AX40	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AX40	5	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AX40	15	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AY36	0	FD	7/1/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-AY36	0	N	7/1/2008	< 0.033 U	< 0.033 U	< 0.0077 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.12 U	< 0.033 U	< 0.033 U
MC1-AY36	3	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.0084 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-AY36	13	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.0086 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-AY37	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-AY37	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AY37	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AY38	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AY38	11	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AY39	0	FD	7/7/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AY39	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AY39	11	N	7/7/2008	< 0.038 U	< 0.038 U	< 0.0087 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.14 U	< 0.038 U	< 0.038 U
MC1-AZ36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				4-Chloro-3-Methylphenol	4-Chlorophenyl phenyl ether	4-Chlorothioanisole	4-Nitrophenol	Acetophenone	Aniline	Azobenzene	Benzenethiol	Benzoic acid	Benzyl alcohol
MC1-AZ36	3	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AZ36	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-AZ37	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-AZ37	12	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-BA36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-BA36	12	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.0085 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-J01	0	FD	6/30/2008	< 0.037 U	< 0.037 U	< 0.0083 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-J01	0	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.0081 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J01	3	N	6/30/2008	< 0.038 U	< 0.038 U	< 0.0088 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.14 U	< 0.038 U	< 0.038 U
MC1-J01	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J02	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J02	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-J02	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J02	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J03	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-J03	6	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J03	16	N	6/26/2008	< 0.038 U	< 0.038 U	< 0.0088 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.14 U	< 0.038 U	< 0.038 U
MC1-J04	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-J04	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J04	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J05	0	N	7/1/2008	< 0.035 U	< 0.035 U	< 0.0081 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J05	9	N	7/1/2008	< 0.036 U	< 0.036 U	< 0.0083 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-J06	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J06	8	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J06	18	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J07	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J07	8	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J07	18	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J08	0	FD	6/23/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-J08	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J08	9	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J08	19	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J09	0	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J09	10	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J10	0	N	6/30/2008	< 0.036 U	< 0.036 U	< 0.0081 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-J10	3	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.0085 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-J10	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J11	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J11	4	N	6/24/2008	< 0.036 U	< 0.036 U	< 0.0081 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				4-Chloro-3-Methylphenol	4-Chlorophenyl phenyl ether	4-Chlorothioanisole	4-Nitrophenol	Acetophenone	Aniline	Azobenzene	Benzenethiol	Benzoic acid	Benzyl alcohol
MC1-J11	14	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J12	0	FD	6/25/2008	< 0.035 U	< 0.035 U	< 0.0081 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J12	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J12	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J13	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J13	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J14	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J14	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.0081 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J15	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.0078 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J15	0	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.0083 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-J15	11	N	6/26/2008	< 0.037 U	< 0.037 U	< 0.0084 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-J16	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.0079 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J16	3	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J16	13	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.0082 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-J17	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.0081 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J17	10	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.0082 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-J18	0	FD	7/7/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J18	0	N	7/7/2008	< 0.036 U	< 0.036 U	< 0.0083 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U	< 0.036 U
MC1-J18	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J19	0	N	7/7/2008	< 0.037 U	< 0.037 U	< 0.0084 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.14 U	< 0.037 U	< 0.037 U
MC1-J19	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.008 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J19	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.0081 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U	< 0.035 U
MC1-J20	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.0077 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U	< 0.034 U
MC1-J20	10	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.0079 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.13 U	< 0.034 U	< 0.034 U
MC1-J28	0	N	1/6/2009	< 0.0346 U	< 0.0346 U	< 0.114 U	< 0.0691 U	< 0.0346 U	< 0.121 U	--	< 0.114 U	< 0.173 U	< 0.104 U
MC1-J29	0	FD	1/6/2009	< 0.0348 U	< 0.0348 U	< 0.115 U	< 0.0696 U	< 0.0348 U	< 0.122 U	--	< 0.115 U	< 0.174 U	< 0.104 U
MC1-J29	0	N	1/6/2009	< 0.0351 U	< 0.0351 U	< 0.116 U	< 0.0701 U	< 0.0351 U	< 0.123 U	--	< 0.116 U	< 0.175 U	< 0.105 U
MC1-J30	0	N	1/6/2009	< 0.0352 U	< 0.0352 U	< 0.116 U	< 0.0704 U	< 0.0352 U	< 0.123 U	--	< 0.116 U	< 0.176 U	< 0.106 U
MC1-J31	0	N	1/6/2009	< 0.0354 U	< 0.0354 U	< 0.117 U	< 0.0708 U	< 0.0354 U	< 0.124 U	--	< 0.117 U	< 0.177 U	< 0.106 U

All units in mg/kg.
-- = no sample data.

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				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	Dibenzofuran	Dibutyl phthalate
MC1-AV37	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AV37	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AV38	0	FD	6/24/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	0.039 J	< 0.2 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U
MC1-AV38	0	N	6/24/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	0.046 J	< 0.2 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U
MC1-AV38	11	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW36	0	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AW36	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.22 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AW37	0	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-AW37	10	N	6/25/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.22 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-AW38	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW38	12	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW39	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW39	12	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX36	3	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX36	13	N	6/30/2008	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.23 U	< 0.38 U	< 0.039 U	< 0.039 U	< 0.039 U
MC1-AX37	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX37	10	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-AX38	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX38	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX39	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.2 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX39	3	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX39	13	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX40	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX40	5	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX40	15	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY36	0	FD	7/1/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.2 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY36	0	N	7/1/2008	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.2 U	< 0.33 U	< 0.033 U	< 0.033 U	< 0.033 U
MC1-AY36	3	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.22 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-AY36	13	N	7/1/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.23 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-AY37	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.2 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY37	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY37	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY38	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY38	11	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY39	0	FD	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY39	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY39	11	N	7/7/2008	0.039 J	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.23 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U
MC1-AZ36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				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	Dibenzofuran	Dibutyl phthalate
MC1-AZ36	3	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AZ36	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AZ37	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AZ37	12	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-BA36	0	N	6/30/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-BA36	12	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.23 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J01	0	FD	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.22 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J01	0	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J01	3	N	6/30/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.23 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U
MC1-J01	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J02	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J02	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J02	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J02	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J03	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J03	6	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J03	16	N	6/26/2008	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.23 U	< 0.38 U	< 0.038 U	< 0.038 U	< 0.038 U
MC1-J04	0	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J04	8	N	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J04	18	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J05	0	N	7/1/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J05	9	N	7/1/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J06	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J06	8	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J06	18	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J07	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J07	8	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J07	18	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J08	0	FD	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J08	0	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J08	9	N	6/23/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J08	19	N	6/23/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J09	0	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J09	10	N	6/24/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J10	0	N	6/30/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J10	3	N	6/30/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.23 U	< 0.37 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J10	13	N	6/30/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J11	0	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J11	4	N	6/24/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				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	Dibenzofuran	Dibutyl phthalate
MC1-J11	14	N	6/24/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	0.058 J	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J12	0	FD	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.22 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J12	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J12	11	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J13	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J13	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J14	0	N	6/25/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J14	12	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.22 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J15	0	FD	6/26/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J15	0	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J15	11	N	6/26/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.22 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J16	0	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.34 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J16	3	N	6/26/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J16	13	N	6/26/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J17	0	N	6/25/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J17	10	N	6/25/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.35 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J18	0	FD	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J18	0	N	7/7/2008	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.22 U	< 0.36 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J18	12	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J19	0	N	7/7/2008	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.22 U	< 0.36 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J19	4	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J19	14	N	7/7/2008	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.21 U	< 0.35 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J20	0	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.2 U	< 0.33 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J20	10	N	7/7/2008	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.21 U	< 0.34 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J28	0	N	1/6/2009	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.114 U	< 0.114 U	< 0.0104 UJ	< 0.0691 U	< 0.0346 U
MC1-J29	0	FD	1/6/2009	< 0.0696 U	< 0.0696 U	< 0.0696 U	< 0.0696 U	< 0.0696 U	< 0.115 U	< 0.115 U	< 0.0104 UJ	< 0.0696 U	< 0.0348 U
MC1-J29	0	N	1/6/2009	< 0.0701 U	< 0.0701 U	< 0.0701 U	< 0.0701 U	< 0.0701 U	< 0.116 U	< 0.116 U	< 0.0105 UJ	< 0.0701 U	< 0.0351 U
MC1-J30	0	N	1/6/2009	< 0.0704 U	< 0.0704 U	< 0.0704 U	< 0.0704 U	< 0.0704 U	< 0.116 U	< 0.116 U	< 0.0106 UJ	< 0.0704 U	< 0.0352 U
MC1-J31	0	N	1/6/2009	< 0.0708 U	< 0.0708 U	< 0.0708 U	< 0.0708 U	< 0.0708 U	< 0.117 U	< 0.117 U	< 0.0106 UJ	< 0.0708 U	< 0.0354 U

All units in mg/kg.
-- = no sample data.

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				Dichloromethyl ether	Diethyl phthalate	Dimethyl phthalate	Di-n-octyl phthalate	Diphenyl sulfone	Diphenylamine	Fluoranthene	Fluorene	Hexachloro-1,3-butadiene	Hexachlorobenzene
MC1-AV37	0	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AV37	11	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AV38	0	FD	6/24/2008	--	< 0.033 U	< 0.033 U	< 0.015 U	< 0.0067 U	--	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U
MC1-AV38	0	N	6/24/2008	--	< 0.033 U	< 0.033 U	< 0.015 U	< 0.0067 U	--	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U
MC1-AV38	11	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW36	0	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AW36	12	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.0071 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AW37	0	N	6/25/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0071 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-AW37	10	N	6/25/2008	--	< 0.037 U	< 0.037 U	< 0.016 U	< 0.0073 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-AW38	0	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW38	12	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW39	0	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AW39	12	N	6/24/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX36	0	N	6/30/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX36	3	N	6/30/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX36	13	N	6/30/2008	--	< 0.039 U	< 0.039 U	< 0.017 U	< 0.0077 U	--	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U
MC1-AX37	0	N	6/26/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX37	10	N	6/26/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0072 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-AX38	0	N	6/25/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX38	11	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX39	0	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX39	3	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX39	13	N	6/23/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AX40	0	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX40	5	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AX40	15	N	6/23/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY36	0	FD	7/1/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY36	0	N	7/1/2008	--	< 0.033 U	< 0.033 U	< 0.015 U	< 0.0067 U	--	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U
MC1-AY36	3	N	7/1/2008	--	< 0.037 U	< 0.037 U	< 0.016 U	< 0.0074 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-AY36	13	N	7/1/2008	--	< 0.037 U	< 0.037 U	< 0.017 U	< 0.0075 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-AY37	0	N	7/7/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY37	4	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY37	14	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY38	0	N	7/7/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY38	11	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AY39	0	FD	7/7/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY39	0	N	7/7/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AY39	11	N	7/7/2008	--	< 0.038 U	< 0.038 U	< 0.017 U	< 0.0076 U	--	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U
MC1-AZ36	0	N	6/30/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Semi-Volatile Organic Compounds (SVOCs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Dichloromethyl ether	Diethyl phthalate	Dimethyl phthalate	Di-n-octyl phthalate	Diphenyl sulfone	Diphenylamine	Fluoranthene	Fluorene	Hexachloro-1,3-butadiene	Hexachlorobenzene
MC1-AZ36	3	N	6/30/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AZ36	13	N	6/30/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-AZ37	0	N	6/30/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-AZ37	12	N	6/30/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-BA36	0	N	6/30/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-BA36	12	N	6/30/2008	--	< 0.037 U	< 0.037 U	< 0.017 U	< 0.0074 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J01	0	FD	6/30/2008	--	< 0.037 U	< 0.037 U	< 0.016 U	< 0.0073 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J01	0	N	6/30/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J01	3	N	6/30/2008	--	< 0.038 U	< 0.038 U	< 0.017 U	< 0.0077 U	--	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U
MC1-J01	13	N	6/30/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J02	0	FD	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J02	0	N	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J02	8	N	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J02	18	N	6/26/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J03	0	N	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J03	6	N	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J03	16	N	6/26/2008	--	< 0.038 U	< 0.038 U	< 0.017 U	< 0.0077 U	--	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U
MC1-J04	0	N	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J04	8	N	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J04	18	N	6/26/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J05	0	N	7/1/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J05	9	N	7/1/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0072 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J06	0	N	6/25/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J06	8	N	6/25/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J06	18	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J07	0	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J07	8	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J07	18	N	6/23/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J08	0	FD	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J08	0	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J08	9	N	6/23/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J08	19	N	6/23/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J09	0	N	6/24/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J09	10	N	6/24/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J10	0	N	6/30/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0071 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J10	3	N	6/30/2008	--	< 0.037 U	< 0.037 U	< 0.016 U	< 0.0074 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J10	13	N	6/30/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J11	0	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J11	4	N	6/24/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0071 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Semi-Volatile Organic Compounds (SVOCs)									
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Dichloromethyl ether	Diethyl phthalate	Dimethyl phthalate	Di-n-octyl phthalate	Diphenyl sulfone	Diphenylamine	Fluoranthene	Fluorene	Hexachloro-1,3-butadiene	Hexachlorobenzene
MC1-J11	14	N	6/24/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J12	0	FD	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.0071 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J12	0	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J12	11	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J13	0	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J13	12	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J14	0	N	6/25/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J14	12	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.0071 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J15	0	FD	6/26/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0068 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J15	0	N	6/26/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0072 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J15	11	N	6/26/2008	--	< 0.037 U	< 0.037 U	< 0.016 U	< 0.0073 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J16	0	N	6/26/2008	--	< 0.035 U	< 0.035 U	< 0.015 U	< 0.0069 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J16	3	N	6/26/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J16	13	N	6/26/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0072 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J17	0	N	6/25/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J17	10	N	6/25/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0071 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J18	0	FD	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J18	0	N	7/7/2008	--	< 0.036 U	< 0.036 U	< 0.016 U	< 0.0072 U	--	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U
MC1-J18	12	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J19	0	N	7/7/2008	--	< 0.037 U	< 0.037 U	< 0.016 U	< 0.0073 U	--	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U
MC1-J19	4	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J19	14	N	7/7/2008	--	< 0.035 U	< 0.035 U	< 0.016 U	< 0.007 U	--	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U
MC1-J20	0	N	7/7/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0067 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J20	10	N	7/7/2008	--	< 0.034 U	< 0.034 U	< 0.015 U	< 0.0069 U	--	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U
MC1-J28	0	N	1/6/2009	< 0.114 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.114 U	< 0.0691 U	< 0.0104 U	< 0.0104 U	< 0.0691 U	< 0.0691 U
MC1-J29	0	FD	1/6/2009	< 0.115 U	< 0.0696 U	< 0.0696 U	< 0.0696 U	< 0.115 U	< 0.0696 U	< 0.0104 U	< 0.0104 U	< 0.0696 U	< 0.0696 U
MC1-J29	0	N	1/6/2009	< 0.116 U	< 0.0701 U	< 0.0701 U	< 0.0701 U	< 0.116 U	< 0.0701 U	< 0.0105 U	< 0.0105 U	< 0.0701 U	< 0.0701 U
MC1-J30	0	N	1/6/2009	< 0.116 U	< 0.0704 U	< 0.0704 U	< 0.0704 U	< 0.116 U	< 0.0704 U	< 0.0106 U	< 0.0106 U	< 0.0704 U	< 0.0704 U
MC1-J31	0	N	1/6/2009	< 0.117 U	< 0.0708 U	< 0.0708 U	< 0.0708 U	< 0.117 U	< 0.0708 U	< 0.0106 U	< 0.0106 U	< 0.0708 U	< 0.0708 U

All units in mg/kg.
-- = no sample data.

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Semi-Volatile Organic Compounds (SVOCs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Hexachlorocyclo-pentadiene	Hexachloroethane	Hydroxymethyl phthalimide	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propyl-amine	N-nitrosodiphenylamine	o-Cresol	Octachlorostyrene
MC1-AV37	0	N	6/24/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AV37	11	N	6/24/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AV38	0	FD	6/24/2008	< 0.33 U	< 0.033 U	< 0.044 UJ	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.12 U	< 0.033 U
MC1-AV38	0	N	6/24/2008	< 0.33 U	< 0.033 U	< 0.043 UJ	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.12 U	< 0.033 U
MC1-AV38	11	N	6/24/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AW36	0	N	7/7/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AW36	12	N	7/7/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-AW37	0	N	6/25/2008	< 0.35 U	< 0.036 U	< 0.046 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-AW37	10	N	6/25/2008	< 0.36 U	< 0.037 U	< 0.048 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-AW38	0	N	6/24/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AW38	12	N	6/24/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AW39	0	N	6/24/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AW39	12	N	6/24/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AX36	0	N	6/30/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AX36	3	N	6/30/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AX36	13	N	6/30/2008	< 0.38 U	< 0.039 U	< 0.05 UJ	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.039 U	< 0.14 U	< 0.039 U
MC1-AX37	0	N	6/26/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AX37	10	N	6/26/2008	< 0.35 U	< 0.036 U	< 0.047 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-AX38	0	N	6/25/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AX38	11	N	6/25/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AX39	0	N	6/23/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AX39	3	N	6/23/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AX39	13	N	6/23/2008	< 0.35 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AX40	0	N	6/23/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AX40	5	N	6/23/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AX40	15	N	6/23/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AY36	0	FD	7/1/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AY36	0	N	7/1/2008	< 0.33 U	< 0.033 U	< 0.044 UJ	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.033 U	< 0.12 U	< 0.033 U
MC1-AY36	3	N	7/1/2008	< 0.37 U	< 0.037 U	< 0.048 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-AY36	13	N	7/1/2008	< 0.37 U	< 0.037 U	< 0.049 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-AY37	0	N	7/7/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AY37	4	N	7/7/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AY37	14	N	7/7/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AY38	0	N	7/7/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AY38	11	N	7/7/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AY39	0	FD	7/7/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AY39	0	N	7/7/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AY39	11	N	7/7/2008	< 0.38 U	< 0.038 U	< 0.049 UJ	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.13 U	< 0.038 U
MC1-AZ36	0	N	6/30/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 17 of 21)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				Hexachlorocyclo-pentadiene	Hexachloroethane	Hydroxymethyl phthalimide	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propyl-amine	N-nitrosodiphenylamine	o-Cresol	Octachlorostyrene
MC1-AZ36	3	N	6/30/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AZ36	13	N	6/30/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-AZ37	0	N	6/30/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-AZ37	12	N	6/30/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-BA36	0	N	6/30/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-BA36	12	N	6/30/2008	< 0.37 U	< 0.037 U	< 0.049 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-J01	0	FD	6/30/2008	< 0.36 U	< 0.037 U	< 0.048 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-J01	0	N	6/30/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J01	3	N	6/30/2008	< 0.38 U	< 0.038 U	< 0.05 UJ	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.14 U	< 0.038 U
MC1-J01	13	N	6/30/2008	< 0.35 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J02	0	FD	6/26/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J02	0	N	6/26/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J02	8	N	6/26/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J02	18	N	6/26/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J03	0	N	6/26/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J03	6	N	6/26/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J03	16	N	6/26/2008	< 0.38 U	< 0.038 U	< 0.05 UJ	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.038 U	< 0.14 U	< 0.038 U
MC1-J04	0	N	6/26/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J04	8	N	6/26/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J04	18	N	6/26/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J05	0	N	7/1/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J05	9	N	7/1/2008	< 0.36 U	< 0.036 U	< 0.047 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-J06	0	N	6/25/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J06	8	N	6/25/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J06	18	N	6/25/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J07	0	N	6/23/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J07	8	N	6/23/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J07	18	N	6/23/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J08	0	FD	6/23/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J08	0	N	6/23/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J08	9	N	6/23/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J08	19	N	6/23/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J09	0	N	6/24/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J09	10	N	6/24/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J10	0	N	6/30/2008	< 0.35 U	< 0.036 U	< 0.046 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-J10	3	N	6/30/2008	< 0.37 U	< 0.037 U	< 0.048 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-J10	13	N	6/30/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J11	0	N	6/24/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J11	4	N	6/24/2008	< 0.35 U	< 0.036 U	< 0.046 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				Hexachlorocyclo-pentadiene	Hexachloroethane	Hydroxymethyl phthalimide	Isophorone	Naphthalene	Nitrobenzene	N-nitrosodi-n-propyl-amine	N-nitrosodiphenylamine	o-Cresol	Octachlorostyrene
MC1-J11	14	N	6/24/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J12	0	FD	6/25/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J12	0	N	6/25/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J12	11	N	6/25/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J13	0	N	6/25/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J13	12	N	6/25/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J14	0	N	6/25/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J14	12	N	6/25/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J15	0	FD	6/26/2008	< 0.34 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J15	0	N	6/26/2008	< 0.36 U	< 0.036 U	< 0.047 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-J15	11	N	6/26/2008	< 0.36 U	< 0.037 U	< 0.048 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-J16	0	N	6/26/2008	< 0.34 U	< 0.035 U	< 0.045 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J16	3	N	6/26/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J16	13	N	6/26/2008	< 0.36 U	< 0.036 U	< 0.047 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-J17	0	N	6/25/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J17	10	N	6/25/2008	< 0.35 U	< 0.036 U	< 0.047 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-J18	0	FD	7/7/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J18	0	N	7/7/2008	< 0.36 U	< 0.036 U	< 0.047 UJ	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.036 U	< 0.13 U	< 0.036 U
MC1-J18	12	N	7/7/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.12 U	< 0.035 U
MC1-J19	0	N	7/7/2008	< 0.36 U	< 0.037 U	< 0.048 UJ	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.13 U	< 0.037 U
MC1-J19	4	N	7/7/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J19	14	N	7/7/2008	< 0.35 U	< 0.035 U	< 0.046 UJ	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.035 U	< 0.13 U	< 0.035 U
MC1-J20	0	N	7/7/2008	< 0.33 U	< 0.034 U	< 0.044 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J20	10	N	7/7/2008	< 0.34 U	< 0.034 U	< 0.045 UJ	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.034 U	< 0.12 U	< 0.034 U
MC1-J28	0	N	1/6/2009	< 0.0691 U	< 0.0691 U	< 0.114 U	< 0.0691 U	< 0.0104 U	< 0.0691 U	< 0.0691 U	--	< 0.0691 U	< 0.114 U
MC1-J29	0	FD	1/6/2009	< 0.0696 U	< 0.0696 U	< 0.115 U	< 0.0696 U	< 0.0104 U	< 0.0696 U	< 0.0696 U	--	< 0.0696 U	< 0.115 U
MC1-J29	0	N	1/6/2009	< 0.0701 U	< 0.0701 U	< 0.116 U	< 0.0701 U	< 0.0105 U	< 0.0701 U	< 0.0701 U	--	< 0.0701 U	< 0.116 U
MC1-J30	0	N	1/6/2009	< 0.0704 U	< 0.0704 U	< 0.116 U	< 0.0704 U	< 0.0106 U	< 0.0704 U	< 0.0704 U	--	< 0.0704 U	< 0.116 U
MC1-J31	0	N	1/6/2009	< 0.0708 U	< 0.0708 U	< 0.117 U	< 0.0708 U	< 0.0106 U	< 0.0708 U	< 0.0708 U	--	< 0.0708 U	< 0.117 U

All units in mg/kg.
-- = no sample data.

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				p-Chloroaniline	p-Chlorothiophenol	Pentachlorobenzene	Pentachlorophenol	Phenol	Phenyl Disulfide	Phenyl Sulfide	Phthalic acid	p-Nitroaniline	Pyridine
MC1-AV37	0	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AV37	11	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AV38	0	FD	6/24/2008	< 0.033 U	< 0.19 U	< 0.033 U	< 0.33 U	< 0.033 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.033 U
MC1-AV38	0	N	6/24/2008	< 0.033 U	< 0.19 U	< 0.033 U	< 0.33 U	< 0.033 U	< 0.029 U	< 0.0035 U	< 0.25 UJ	< 0.33 U	< 0.033 U
MC1-AV38	11	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AW36	0	N	7/7/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AW36	12	N	7/7/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-AW37	0	N	6/25/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.35 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.35 U	< 0.036 U
MC1-AW37	10	N	6/25/2008	< 0.037 U	< 0.2 U	< 0.037 U	< 0.36 U	< 0.037 U	< 0.032 U	< 0.0039 U	< 0.28 UJ	< 0.36 U	< 0.037 U
MC1-AW38	0	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AW38	12	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AW39	0	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-AW39	12	N	6/24/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AX36	0	N	6/30/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U
MC1-AX36	3	N	6/30/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AX36	13	N	6/30/2008	< 0.039 U	< 0.21 U	< 0.039 U	< 0.38 U	< 0.039 U	< 0.033 U	< 0.0041 U	< 0.29 UJ	< 0.38 U	< 0.039 U
MC1-AX37	0	N	6/26/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AX37	10	N	6/26/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.35 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.35 U	< 0.036 U
MC1-AX38	0	N	6/25/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U
MC1-AX38	11	N	6/25/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-AX39	0	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-AX39	3	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AX39	13	N	6/23/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-AX40	0	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U
MC1-AX40	5	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U
MC1-AX40	15	N	6/23/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AY36	0	FD	7/1/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-AY36	0	N	7/1/2008	< 0.033 U	< 0.19 U	< 0.033 U	< 0.33 U	< 0.033 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.033 U
MC1-AY36	3	N	7/1/2008	< 0.037 U	< 0.2 U	< 0.037 U	< 0.37 U	< 0.037 U	< 0.032 U	< 0.0039 U	< 0.28 UJ	< 0.37 U	< 0.037 U
MC1-AY36	13	N	7/1/2008	< 0.037 U	< 0.21 U	< 0.037 U	< 0.37 U	< 0.037 U	< 0.032 U	< 0.004 U	< 0.28 UJ	< 0.37 U	< 0.037 U
MC1-AY37	0	N	7/7/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-AY37	4	N	7/7/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AY37	14	N	7/7/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AY38	0	N	7/7/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AY38	11	N	7/7/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AY39	0	FD	7/7/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-AY39	0	N	7/7/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U
MC1-AY39	11	N	7/7/2008	< 0.038 U	< 0.21 U	< 0.038 U	< 0.38 U	< 0.038 U	< 0.033 U	< 0.004 U	< 0.28 UJ	< 0.38 U	< 0.038 U
MC1-AZ36	0	N	6/30/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				p-Chloroaniline	p-Chlorothiophenol	Pentachlorobenzene	Pentachlorophenol	Phenol	Phenyl Disulfide	Phenyl Sulfide	Phthalic acid	p-Nitroaniline	Pyridine
MC1-AZ36	3	N	6/30/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-AZ36	13	N	6/30/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-AZ37	0	N	6/30/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U
MC1-AZ37	12	N	6/30/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-BA36	0	N	6/30/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-BA36	12	N	6/30/2008	< 0.037 U	< 0.21 U	< 0.037 U	< 0.37 U	< 0.037 U	< 0.032 U	< 0.0039 U	< 0.28 UJ	< 0.37 U	< 0.037 U
MC1-J01	0	FD	6/30/2008	< 0.037 U	< 0.2 U	< 0.037 U	< 0.36 U	< 0.037 U	< 0.032 U	< 0.0039 U	< 0.27 UJ	< 0.36 U	< 0.037 U
MC1-J01	0	N	6/30/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J01	3	N	6/30/2008	< 0.038 U	< 0.21 U	< 0.038 U	< 0.38 U	< 0.038 U	< 0.033 U	< 0.0041 U	< 0.29 UJ	< 0.38 U	< 0.038 U
MC1-J01	13	N	6/30/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J02	0	FD	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J02	0	N	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-J02	8	N	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J02	18	N	6/26/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J03	0	N	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-J03	6	N	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J03	16	N	6/26/2008	< 0.038 U	< 0.21 U	< 0.038 U	< 0.38 U	< 0.038 U	< 0.033 U	< 0.0041 U	< 0.29 UJ	< 0.38 U	< 0.038 U
MC1-J04	0	N	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-J04	8	N	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J04	18	N	6/26/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J05	0	N	7/1/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J05	9	N	7/1/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.36 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.36 U	< 0.036 U
MC1-J06	0	N	6/25/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.34 U	< 0.034 U
MC1-J06	8	N	6/25/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J06	18	N	6/25/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J07	0	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J07	8	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J07	18	N	6/23/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J08	0	FD	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-J08	0	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J08	9	N	6/23/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J08	19	N	6/23/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J09	0	N	6/24/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J09	10	N	6/24/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J10	0	N	6/30/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.35 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.35 U	< 0.036 U
MC1-J10	3	N	6/30/2008	< 0.037 U	< 0.21 U	< 0.037 U	< 0.37 U	< 0.037 U	< 0.032 U	< 0.0039 U	< 0.28 UJ	< 0.37 U	< 0.037 U
MC1-J10	13	N	6/30/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J11	0	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J11	4	N	6/24/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.35 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.35 U	< 0.036 U

TABLE B-10
SOIL SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Semi-Volatile Organic Compounds (SVOCs)									
				p-Chloroaniline	p-Chlorothiophenol	Pentachlorobenzene	Pentachlorophenol	Phenol	Phenyl Disulfide	Phenyl Sulfide	Phthalic acid	p-Nitroaniline	Pyridine
MC1-J11	14	N	6/24/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J12	0	FD	6/25/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J12	0	N	6/25/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J12	11	N	6/25/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J13	0	N	6/25/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J13	12	N	6/25/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J14	0	N	6/25/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J14	12	N	6/25/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.35 U	< 0.035 U
MC1-J15	0	FD	6/26/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J15	0	N	6/26/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.36 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.36 U	< 0.036 U
MC1-J15	11	N	6/26/2008	< 0.037 U	< 0.2 U	< 0.037 U	< 0.36 U	< 0.037 U	< 0.032 U	< 0.0039 U	< 0.28 UJ	< 0.36 U	< 0.037 U
MC1-J16	0	N	6/26/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.34 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.34 U	< 0.035 U
MC1-J16	3	N	6/26/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J16	13	N	6/26/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.36 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.36 U	< 0.036 U
MC1-J17	0	N	6/25/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J17	10	N	6/25/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.35 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.35 U	< 0.036 U
MC1-J18	0	FD	7/7/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J18	0	N	7/7/2008	< 0.036 U	< 0.2 U	< 0.036 U	< 0.36 U	< 0.036 U	< 0.031 U	< 0.0038 U	< 0.27 UJ	< 0.36 U	< 0.036 U
MC1-J18	12	N	7/7/2008	< 0.035 U	< 0.19 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J19	0	N	7/7/2008	< 0.037 U	< 0.2 U	< 0.037 U	< 0.36 U	< 0.037 U	< 0.032 U	< 0.0039 U	< 0.27 UJ	< 0.36 U	< 0.037 U
MC1-J19	4	N	7/7/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J19	14	N	7/7/2008	< 0.035 U	< 0.2 U	< 0.035 U	< 0.35 U	< 0.035 U	< 0.03 U	< 0.0037 U	< 0.26 UJ	< 0.35 U	< 0.035 U
MC1-J20	0	N	7/7/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.33 U	< 0.034 U	< 0.029 U	< 0.0036 U	< 0.25 UJ	< 0.33 U	< 0.034 U
MC1-J20	10	N	7/7/2008	< 0.034 U	< 0.19 U	< 0.034 U	< 0.34 U	< 0.034 U	< 0.03 U	< 0.0036 U	< 0.26 UJ	< 0.34 U	< 0.034 U
MC1-J28	0	N	1/6/2009	< 0.0691 U	< 0.114 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.114 U	< 0.114 U	< 0.114 U	< 0.0691 U	< 0.0691 U
MC1-J29	0	FD	1/6/2009	< 0.0696 U	< 0.115 U	< 0.0696 U	< 0.0696 U	< 0.0696 U	< 0.115 U	< 0.115 U	< 0.115 U	< 0.0696 U	< 0.0696 U
MC1-J29	0	N	1/6/2009	< 0.0701 U	< 0.116 U	< 0.0701 U	< 0.0701 U	< 0.0701 U	< 0.116 U	< 0.116 U	< 0.116 U	< 0.0701 U	< 0.0701 U
MC1-J30	0	N	1/6/2009	< 0.0704 U	< 0.116 U	< 0.0704 U	< 0.0704 U	< 0.0704 U	< 0.116 U	< 0.116 U	< 0.116 U	< 0.0704 U	< 0.0704 U
MC1-J31	0	N	1/6/2009	< 0.0708 U	< 0.117 U	< 0.0708 U	< 0.0708 U	< 0.0708 U	< 0.117 U	< 0.117 U	< 0.117 U	< 0.0708 U	< 0.0708 U

All units in mg/kg.
-- = no sample data.

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (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-chloropropane (DBCP)
MC1-AV37	0	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AV37	11	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AV38	0	FD	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.000078 UJ	< 0.000067 U	< 0.00007 U	< 0.00012 U	< 0.000088 U	< 0.00039 UJ	< 0.00025 UJ	< 0.00033 UJ	0.00072 J	< 0.00021 UJ
MC1-AV38	0	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.000078 UJ	< 0.000067 U	< 0.00007 U	< 0.00012 U	< 0.000087 U	< 0.00039 UJ	< 0.00025 UJ	< 0.00033 UJ	0.00038 J	< 0.00021 UJ
MC1-AV38	11	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AW36	0	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	0.00051 J	< 0.00022 U
MC1-AW36	12	N	7/7/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00027 U	< 0.00035 U	0.00038 J	< 0.00022 U
MC1-AW37	0	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000072 U	< 0.000075 U	< 0.00013 U	< 0.000093 U	< 0.00041 U	< 0.00027 U	< 0.00035 U	< 0.00014 U	< 0.00023 U
MC1-AW37	10	N	6/25/2008	< 0.0002 U	< 0.00012 U	< 0.000086 U	< 0.000074 U	< 0.000077 U	< 0.00013 U	< 0.000096 U	< 0.00043 U	< 0.00028 U	< 0.00036 U	< 0.00015 U	< 0.00023 U
MC1-AW38	0	N	6/24/2008	0.036	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AW38	12	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AW39	0	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	0.00046 J	< 0.00021 U
MC1-AW39	12	N	6/24/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00013 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AX36	0	N	6/30/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AX36	3	N	6/30/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AX36	13	N	6/30/2008	< 0.00021 U	< 0.00012 U	< 0.00009 U	< 0.000077 U	< 0.000081 U	< 0.00014 U	< 0.0001 U	< 0.00045 U	< 0.00029 U	< 0.00038 U	< 0.00015 U	< 0.00024 U
MC1-AX37	0	N	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AX37	10	N	6/26/2008	< 0.00019 U	< 0.00011 U	< 0.000084 U	< 0.000072 U	< 0.000075 U	< 0.00013 U	< 0.000094 U	< 0.00042 U	< 0.00027 U	< 0.00035 U	< 0.00014 U	< 0.00023 U
MC1-AX38	0	N	6/25/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00025 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AX38	11	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.00007 U	< 0.000074 U	< 0.00013 U	< 0.000091 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-AX39	0	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	< 0.00013 U	< 0.00021 U
MC1-AX39	3	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AX39	13	N	6/23/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.00007 U	< 0.000073 U	< 0.00013 U	< 0.000091 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-AX40	0	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00025 U	< 0.00034 U	< 0.00014 U	< 0.00021 U
MC1-AX40	5	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00025 U	< 0.00034 U	< 0.00014 U	< 0.00021 U
MC1-AX40	15	N	6/23/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AY36	0	FD	7/1/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000067 U	< 0.00007 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	< 0.00013 U	< 0.00021 U
MC1-AY36	0	N	7/1/2008	< 0.00018 U	< 0.00011 U	< 0.000078 U	< 0.000067 U	< 0.00007 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	< 0.00013 U	< 0.00021 U
MC1-AY36	3	N	7/1/2008	< 0.0002 U	< 0.00012 U	< 0.000086 U	< 0.000074 U	< 0.000078 U	< 0.00013 U	< 0.000096 U	< 0.00043 U	< 0.00028 U	< 0.00037 U	< 0.00015 U	< 0.00023 U
MC1-AY36	13	N	7/1/2008	< 0.0002 U	< 0.00012 U	< 0.000088 U	< 0.000075 U	< 0.000079 U	< 0.00013 U	< 0.000098 U	< 0.00044 U	< 0.00028 U	< 0.00037 U	< 0.00015 U	< 0.00024 U
MC1-AY37	0	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000067 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	0.00057 J	< 0.00021 U
MC1-AY37	4	N	7/7/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	0.00047 J	< 0.00022 U
MC1-AY37	14	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	0.00051 J	< 0.00022 U
MC1-AY38	0	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	0.00057 J	< 0.00022 U
MC1-AY38	11	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	0.00052 J	< 0.00022 U
MC1-AY39	0	FD	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	0.0015 J	< 0.00022 U
MC1-AY39	0	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.00008 UJ	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000089 U	< 0.0004 UJ	< 0.00026 UJ	< 0.00034 UJ	0.0006 J	< 0.00022 UJ
MC1-AY39	11	N	7/7/2008	< 0.0002 U	< 0.00012 U	< 0.000089 U	< 0.000076 U	< 0.00008 U	< 0.00014 U	< 0.000099 U	< 0.00044 U	< 0.00028 U	< 0.00038 U	< 0.00015 U	< 0.00024 U
MC1-AZ36	0	N	6/30/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000089 U	< 0.00039 U	< 0.00025 U	< 0.00034 U	< 0.00014 U	< 0.00021 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Volatile Organic Compounds (VOCs)											
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	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-chloropropane (DBCP)
MC1-AZ36	3	N	6/30/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-AZ36	13	N	6/30/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.00007 U	< 0.000074 U	< 0.00013 U	< 0.000091 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-AZ37	0	N	6/30/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000089 U	< 0.00039 U	< 0.00025 U	< 0.00034 U	< 0.00014 U	< 0.00021 U
MC1-AZ37	12	N	6/30/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00013 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-BA36	0	N	6/30/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	< 0.00013 U	< 0.00021 U
MC1-BA36	12	N	6/30/2008	< 0.0002 U	< 0.00012 U	< 0.000087 U	< 0.000075 U	< 0.000078 U	< 0.00013 U	< 0.000097 U	< 0.00043 U	< 0.00028 U	< 0.00037 U	< 0.00015 U	< 0.00024 U
MC1-J01	0	FD	6/30/2008	< 0.0002 U	< 0.00012 U	< 0.000086 U	< 0.000073 U	< 0.000077 U	< 0.00013 U	< 0.000095 U	< 0.00043 U	< 0.00027 U	< 0.00036 U	< 0.00015 U	< 0.00023 U
MC1-J01	0	N	6/30/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J01	3	N	6/30/2008	< 0.00021 U	< 0.00012 U	< 0.00009 U	< 0.000077 U	< 0.000081 U	< 0.00014 U	< 0.0001 U	< 0.00045 U	< 0.00029 U	< 0.00038 U	< 0.00015 U	< 0.00024 U
MC1-J01	13	N	6/30/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.00007 U	< 0.000073 U	< 0.00013 U	< 0.000091 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J02	0	FD	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000068 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J02	0	N	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	< 0.00013 U	< 0.00021 U
MC1-J02	8	N	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J02	18	N	6/26/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J03	0	N	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	0.00068 J	< 0.00021 U
MC1-J03	6	N	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J03	16	N	6/26/2008	< 0.00021 U	< 0.00012 U	< 0.00009 U	< 0.000077 U	< 0.000081 U	< 0.00014 U	< 0.0001 U	< 0.00045 U	< 0.00029 U	< 0.00038 U	< 0.00015 U	< 0.00024 U
MC1-J04	0	N	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	< 0.00013 U	< 0.00021 U
MC1-J04	8	N	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J04	18	N	6/26/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J05	0	N	7/1/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J05	9	N	7/1/2008	< 0.00019 U	< 0.00011 U	< 0.000085 U	< 0.000073 U	< 0.000076 U	< 0.00013 U	< 0.000094 U	< 0.00042 U	< 0.00027 U	< 0.00036 U	< 0.00014 U	< 0.00023 U
MC1-J06	0	N	6/25/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00034 U	< 0.00014 U	< 0.00021 U
MC1-J06	8	N	6/25/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J06	18	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J07	0	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	0.0005 J	< 0.00022 U
MC1-J07	8	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J07	18	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J08	0	FD	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000079 U	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 U	< 0.00025 U	< 0.00033 U	0.00055 J	< 0.00021 U
MC1-J08	0	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J08	9	N	6/23/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J08	19	N	6/23/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00013 U	< 0.000091 U	< 0.00041 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J09	0	N	6/24/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J09	10	N	6/24/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00013 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J10	0	N	6/30/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000075 U	< 0.00013 U	< 0.000093 U	< 0.00041 U	< 0.00027 U	< 0.00035 U	< 0.00014 U	< 0.00023 U
MC1-J10	3	N	6/30/2008	< 0.0002 U	< 0.00012 U	< 0.000087 U	< 0.000075 U	< 0.000078 U	< 0.00013 U	< 0.000097 U	< 0.00043 U	< 0.00028 U	< 0.00037 U	< 0.00015 U	< 0.00023 U
MC1-J10	13	N	6/30/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J11	0	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J11	4	N	6/24/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000072 U	< 0.000075 U	< 0.00013 U	< 0.000093 U	< 0.00042 U	< 0.00027 U	< 0.00035 U	< 0.00014 U	< 0.00023 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 3 of 21)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (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-chloropropane (DBCP)
MC1-J11	14	N	6/24/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J12	0	FD	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00027 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J12	0	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J12	11	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	0.00041 J	< 0.00022 U
MC1-J13	0	N	6/25/2008	< 0.00018 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00012 U	< 0.00009 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J13	12	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J14	0	N	6/25/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J14	12	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000093 U	< 0.00041 U	< 0.00027 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J15	0	FD	6/26/2008	< 0.00018 U	< 0.00011 U	< 0.00008 U	< 0.000068 U	< 0.000072 U	< 0.00012 U	< 0.000089 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J15	0	N	6/26/2008	< 0.00019 U	< 0.00011 U	< 0.000085 U	< 0.000073 U	< 0.000076 U	< 0.00013 U	< 0.000094 U	< 0.00042 U	< 0.00027 U	< 0.00036 U	< 0.00014 U	< 0.00023 U
MC1-J15	11	N	6/26/2008	< 0.0002 U	< 0.00012 U	< 0.000086 U	< 0.000074 U	< 0.000077 U	< 0.00013 U	< 0.000096 U	< 0.00043 U	< 0.00028 U	< 0.00036 U	< 0.00015 U	< 0.00023 U
MC1-J16	0	N	6/26/2008	< 0.00019 U	< 0.00011 U	< 0.000081 U	< 0.00007 U	< 0.000073 U	< 0.00013 U	< 0.000091 U	< 0.0004 U	< 0.00026 U	< 0.00034 U	< 0.00014 U	< 0.00022 U
MC1-J16	3	N	6/26/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J16	13	N	6/26/2008	< 0.00019 U	< 0.00011 U	< 0.000084 U	< 0.000072 U	< 0.000076 U	< 0.00013 U	< 0.000094 U	< 0.00042 U	< 0.00027 U	< 0.00036 U	< 0.00014 U	< 0.00023 U
MC1-J17	0	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J17	10	N	6/25/2008	< 0.00019 U	< 0.00011 U	< 0.000084 U	< 0.000072 U	< 0.000075 U	< 0.00013 U	< 0.000093 U	< 0.00042 U	< 0.00027 U	< 0.00035 U	< 0.00014 U	< 0.00023 U
MC1-J18	0	FD	7/7/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.00007 U	< 0.000074 U	< 0.00013 U	< 0.000091 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J18	0	N	7/7/2008	< 0.00019 U	< 0.00011 U	< 0.000085 U	< 0.000073 U	< 0.000076 U	< 0.00013 U	< 0.000095 U	< 0.00042 U	< 0.00027 U	< 0.00036 U	< 0.00014 U	< 0.00023 U
MC1-J18	12	N	7/7/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.00007 U	< 0.000074 U	< 0.00013 U	< 0.000091 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	0.00045 J	< 0.00022 U
MC1-J19	0	N	7/7/2008	< 0.0002 U	< 0.00012 U	< 0.000086 U	< 0.000074 U	< 0.000077 U	< 0.00013 U	< 0.000095 U	< 0.00043 U	< 0.00027 U	< 0.00036 U	0.00045 J	< 0.00023 U
MC1-J19	4	N	7/7/2008	< 0.00019 U	< 0.00011 U	< 0.000082 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J19	14	N	7/7/2008	< 0.00019 U	< 0.00011 U	< 0.000083 U	< 0.000071 U	< 0.000074 U	< 0.00013 U	< 0.000092 U	< 0.00041 U	< 0.00026 U	< 0.00035 U	< 0.00014 U	< 0.00022 U
MC1-J20	0	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.000079 UJ	< 0.000068 U	< 0.000071 U	< 0.00012 U	< 0.000088 U	< 0.00039 UJ	< 0.00025 UJ	< 0.00033 UJ	< 0.00013 UJ	< 0.00021 UJ
MC1-J20	10	N	7/7/2008	< 0.00018 U	< 0.00011 U	< 0.000081 UJ	< 0.000069 U	< 0.000072 U	< 0.00012 U	< 0.00009 U	< 0.0004 UJ	< 0.00026 UJ	< 0.00034 UJ	< 0.00014 UJ	< 0.00022 UJ

All units in mg/kg.
-- = no sample data.

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Volatile Organic Compounds (VOCs)											
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	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	1-Nonanal	2,2,3-Trimethylbutane	2,2-Dichloropropane
MC1-AV37	0	N	6/24/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AV37	11	N	6/24/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AV38	0	FD	6/24/2008	< 0.00012 UJ	< 0.000066 U	< 0.00011 U	< 0.00011 U	< 0.00037 UJ	0.00053 J	< 0.00013 UJ	< 0.000051 U	< 0.00014 UJ	< 0.00047 UJ	< 0.00021 U	< 0.00023 U
MC1-AV38	0	N	6/24/2008	< 0.00012 UJ	< 0.000066 U	< 0.00011 U	< 0.00011 U	< 0.00037 UJ	< 0.000097 UJ	< 0.00013 UJ	< 0.000051 U	< 0.00014 UJ	< 0.00047 UJ	< 0.00021 U	< 0.00023 U
MC1-AV38	11	N	6/24/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AW36	0	N	7/7/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	0.00067 J	< 0.00022 U	< 0.00024 U
MC1-AW36	12	N	7/7/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-AW37	0	N	6/25/2008	< 0.00013 U	< 0.000071 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.0001 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-AW37	10	N	6/25/2008	< 0.00013 U	< 0.000073 U	< 0.00012 U	< 0.00012 U	< 0.00041 U	< 0.00011 U	< 0.00014 U	< 0.000056 U	< 0.00015 U	< 0.00052 U	< 0.00023 U	< 0.00026 U
MC1-AW38	0	N	6/24/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AW38	12	N	6/24/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AW39	0	N	6/24/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000098 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00024 U
MC1-AW39	12	N	6/24/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AX36	0	N	6/30/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-AX36	3	N	6/30/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AX36	13	N	6/30/2008	< 0.00014 U	< 0.000076 U	< 0.00012 U	< 0.00013 U	< 0.00043 U	< 0.00011 U	< 0.00015 U	< 0.000059 U	< 0.00016 U	< 0.00054 U	< 0.00024 U	< 0.00027 U
MC1-AX37	0	N	6/26/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AX37	10	N	6/26/2008	< 0.00013 U	< 0.000071 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.0001 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.0005 U	< 0.00023 U	< 0.00025 U
MC1-AX38	0	N	6/25/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-AX38	11	N	6/25/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AX39	0	N	6/23/2008	< 0.00012 U	< 0.000066 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000051 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00023 U
MC1-AX39	3	N	6/23/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AX39	13	N	6/23/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AX40	0	N	6/23/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-AX40	5	N	6/23/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-AX40	15	N	6/23/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AY36	0	FD	7/1/2008	< 0.00012 U	< 0.000066 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000051 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00023 U
MC1-AY36	0	N	7/1/2008	< 0.00012 U	< 0.000066 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000051 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00023 U
MC1-AY36	3	N	7/1/2008	< 0.00013 U	< 0.000073 U	< 0.00012 U	< 0.00012 U	< 0.00041 U	< 0.00011 U	< 0.00015 U	< 0.000056 U	< 0.00015 U	< 0.00052 U	< 0.00023 U	< 0.00026 U
MC1-AY36	13	N	7/1/2008	< 0.00014 U	< 0.000074 U	< 0.00012 U	< 0.00012 U	< 0.00042 U	< 0.00011 U	< 0.00015 U	< 0.000057 U	< 0.00015 U	< 0.00053 U	< 0.00024 U	< 0.00026 U
MC1-AY37	0	N	7/7/2008	< 0.00012 U	< 0.000066 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000051 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00023 U
MC1-AY37	4	N	7/7/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AY37	14	N	7/7/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AY38	0	N	7/7/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AY38	11	N	7/7/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-AY39	0	FD	7/7/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-AY39	0	N	7/7/2008	< 0.00012 UJ	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 UJ	< 0.000099 UJ	< 0.00013 UJ	< 0.000052 U	< 0.00014 UJ	< 0.00048 UJ	< 0.00021 U	< 0.00024 U
MC1-AY39	11	N	7/7/2008	< 0.00014 U	< 0.000075 U	< 0.00012 U	< 0.00013 U	< 0.00042 U	< 0.00011 U	< 0.00015 U	< 0.000058 U	< 0.00015 U	< 0.00053 U	< 0.00024 U	< 0.00026 U
MC1-AZ36	0	N	6/30/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				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	1-Nonanal	2,2,3-Trimethylbutane	2,2-Dichloropropane
MC1-AZ36	3	N	6/30/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AZ36	13	N	6/30/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-AZ37	0	N	6/30/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-AZ37	12	N	6/30/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-BA36	0	N	6/30/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000098 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00024 U
MC1-BA36	12	N	6/30/2008	< 0.00014 U	< 0.000074 U	< 0.00012 U	< 0.00012 U	< 0.00041 U	< 0.00011 U	< 0.00015 U	< 0.000057 U	< 0.00015 U	< 0.00052 U	< 0.00023 U	< 0.00026 U
MC1-J01	0	FD	6/30/2008	< 0.00013 U	< 0.000072 U	< 0.00012 U	< 0.00012 U	< 0.00041 U	< 0.00011 U	< 0.00014 U	< 0.000056 U	< 0.00015 U	< 0.00051 U	< 0.00023 U	< 0.00025 U
MC1-J01	0	N	6/30/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-J01	3	N	6/30/2008	< 0.00014 U	< 0.000076 U	< 0.00012 U	< 0.00013 U	< 0.00043 U	< 0.00011 U	< 0.00015 U	< 0.000059 U	< 0.00016 U	< 0.00054 U	< 0.00024 U	< 0.00027 U
MC1-J01	13	N	6/30/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J02	0	FD	6/26/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-J02	0	N	6/26/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00023 U
MC1-J02	8	N	6/26/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J02	18	N	6/26/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J03	0	N	6/26/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00023 U
MC1-J03	6	N	6/26/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J03	16	N	6/26/2008	< 0.00014 U	< 0.000076 U	< 0.00012 U	< 0.00013 U	< 0.00043 U	< 0.00011 U	< 0.00015 U	< 0.000059 U	< 0.00016 U	< 0.00054 U	< 0.00024 U	< 0.00027 U
MC1-J04	0	N	6/26/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00024 U
MC1-J04	8	N	6/26/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J04	18	N	6/26/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J05	0	N	7/1/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-J05	9	N	7/1/2008	< 0.00013 U	< 0.000072 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.00011 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.00051 U	< 0.00023 U	< 0.00025 U
MC1-J06	0	N	6/25/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-J06	8	N	6/25/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J06	18	N	6/25/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J07	0	N	6/23/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J07	8	N	6/23/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J07	18	N	6/23/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J08	0	FD	6/23/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000098 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00047 U	< 0.00021 U	< 0.00023 U
MC1-J08	0	N	6/23/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J08	9	N	6/23/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J08	19	N	6/23/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J09	0	N	6/24/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J09	10	N	6/24/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	0.0047 J	< 0.00022 U	< 0.00024 U
MC1-J10	0	N	6/30/2008	< 0.00013 U	< 0.00007 U	< 0.00012 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00015 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-J10	3	N	6/30/2008	< 0.00013 U	< 0.000073 U	< 0.00012 U	< 0.00012 U	< 0.00041 U	< 0.00011 U	< 0.00015 U	< 0.000057 U	< 0.00015 U	< 0.00052 U	< 0.00023 U	< 0.00026 U
MC1-J10	13	N	6/30/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J11	0	N	6/24/2008	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J11	4	N	6/24/2008	< 0.00013 U	< 0.000071 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.0001 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.0005 U	< 0.00022 U	< 0.00025 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 6 of 21)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				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	1-Nonanal	2,2,3-Trimethylbutane	2,2-Dichloropropane
MC1-J11	14	N	6/24/2008	< 0.00012 U	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00013 U	< 0.000053 U	< 0.00014 U	< 0.00048 U	< 0.00022 U	< 0.00024 U
MC1-J12	0	FD	6/25/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-J12	0	N	6/25/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J12	11	N	6/25/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J13	0	N	6/25/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J13	12	N	6/25/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00025 U
MC1-J14	0	N	6/25/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-J14	12	N	6/25/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-J15	0	FD	6/26/2008	< 0.00012 U	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00038 U	< 0.000099 U	< 0.00013 U	< 0.000052 U	< 0.00014 U	< 0.00048 U	< 0.00021 U	< 0.00024 U
MC1-J15	0	N	6/26/2008	< 0.00013 U	< 0.000072 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.00011 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.00051 U	< 0.00023 U	< 0.00025 U
MC1-J15	11	N	6/26/2008	< 0.00013 U	< 0.000073 U	< 0.00012 U	< 0.00012 U	< 0.00041 U	< 0.00011 U	< 0.00014 U	< 0.000056 U	< 0.00015 U	< 0.00052 U	< 0.00023 U	< 0.00026 U
MC1-J16	0	N	6/26/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00011 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000053 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J16	3	N	6/26/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00025 U
MC1-J16	13	N	6/26/2008	< 0.00013 U	< 0.000071 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.0001 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.00051 U	< 0.00023 U	< 0.00025 U
MC1-J17	0	N	6/25/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-J17	10	N	6/25/2008	< 0.00013 U	< 0.000071 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.0001 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.0005 U	< 0.00023 U	< 0.00025 U
MC1-J18	0	FD	7/7/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J18	0	N	7/7/2008	< 0.00013 U	< 0.000072 U	< 0.00012 U	< 0.00012 U	< 0.0004 U	< 0.00011 U	< 0.00014 U	< 0.000055 U	< 0.00015 U	< 0.00051 U	< 0.00023 U	< 0.00025 U
MC1-J18	12	N	7/7/2008	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00024 U
MC1-J19	0	N	7/7/2008	< 0.00013 U	< 0.000072 U	< 0.00012 U	< 0.00012 U	< 0.00041 U	< 0.00011 U	< 0.00014 U	< 0.000056 U	< 0.00015 U	< 0.00051 U	< 0.00023 U	< 0.00025 U
MC1-J19	4	N	7/7/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.00049 U	< 0.00022 U	< 0.00025 U
MC1-J19	14	N	7/7/2008	< 0.00013 U	< 0.00007 U	< 0.00011 U	< 0.00012 U	< 0.00039 U	< 0.0001 U	< 0.00014 U	< 0.000054 U	< 0.00014 U	< 0.0005 U	< 0.00022 U	< 0.00025 U
MC1-J20	0	N	7/7/2008	< 0.00012 UJ	< 0.000067 U	< 0.00011 U	< 0.00011 U	< 0.00037 UJ	< 0.000098 UJ	< 0.00013 UJ	< 0.000051 U	< 0.00014 UJ	< 0.00047 UJ	< 0.00021 U	< 0.00023 U
MC1-J20	10	N	7/7/2008	< 0.00012 UJ	< 0.000068 U	< 0.00011 U	< 0.00011 U	< 0.00038 UJ	< 0.0001 UJ	< 0.00014 UJ	< 0.000053 U	< 0.00014 UJ	< 0.00048 UJ	< 0.00022 U	< 0.00024 U

All units in mg/kg.

-- = no sample data.

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Volatile Organic Compounds (VOCs)											
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	2,2-Dimethylpentane	2,3-Dimethylpentane	2,4-Dimethylpentane	2-Chlorotoluene	2-Nitropropane	2-Phenylbutane	3,3-dimethylpentane	3-ethylpentane	3-Methylhexane	4-Chlorotoluene	Acetone	Acetonitrile
MC1-AV37	0	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0017 U	< 0.0056 UJ
MC1-AV37	11	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	0.017 J	< 0.0056 UJ
MC1-AV38	0	FD	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.00019 U	< 0.00025 UJ	< 0.00061 U	< 0.00011 UJ	< 0.0002 U	< 0.00021 U	< 0.00014 U	< 0.00017 UJ	0.16 J	< 0.0054 UJ
MC1-AV38	0	N	6/24/2008	< 0.00028 U	< 0.00022 U	< 0.00019 U	< 0.00025 UJ	< 0.0006 U	< 0.00011 UJ	< 0.0002 U	< 0.00021 U	< 0.00014 U	< 0.00017 UJ	0.061 J	< 0.0054 UJ
MC1-AV38	11	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0017 U	< 0.0055 UJ
MC1-AW36	0	N	7/7/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-AW36	12	N	7/7/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00022 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-AW37	0	N	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.00021 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00022 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0058 U
MC1-AW37	10	N	6/25/2008	< 0.0003 U	< 0.00025 U	< 0.00021 U	< 0.00027 U	< 0.00066 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00019 U	< 0.0019 U	< 0.006 U
MC1-AW38	0	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	0.053	< 0.0056 UJ
MC1-AW38	12	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-AW39	0	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-AW39	12	N	6/24/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-AX36	0	N	6/30/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-AX36	3	N	6/30/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0017 U	< 0.0056 UJ
MC1-AX36	13	N	6/30/2008	< 0.00032 U	< 0.00026 U	< 0.00022 U	< 0.00029 U	< 0.0007 U	< 0.00012 U	< 0.00023 U	< 0.00024 U	< 0.00016 U	< 0.0002 U	< 0.002 U	< 0.0063 UJ
MC1-AX37	0	N	6/26/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-AX37	10	N	6/26/2008	< 0.0003 U	< 0.00024 U	< 0.00021 U	< 0.00027 U	< 0.00065 U	< 0.00011 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0058 U
MC1-AX38	0	N	6/25/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 U
MC1-AX38	11	N	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-AX39	0	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.00019 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.0002 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-AX39	3	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-AX39	13	N	6/23/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 UJ
MC1-AX40	0	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-AX40	5	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-AX40	15	N	6/23/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-AY36	0	FD	7/1/2008	< 0.00028 U	< 0.00023 U	< 0.00019 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.0002 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0054 U
MC1-AY36	0	N	7/1/2008	< 0.00028 U	< 0.00023 U	< 0.00019 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.0002 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	0.016 J	< 0.0054 U
MC1-AY36	3	N	7/1/2008	< 0.0003 U	< 0.00025 U	< 0.00021 U	< 0.00027 U	< 0.00067 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00016 U	< 0.00019 U	< 0.0019 U	< 0.006 U
MC1-AY36	13	N	7/1/2008	< 0.00031 U	< 0.00025 U	< 0.00022 U	< 0.00028 U	< 0.00068 U	< 0.00012 U	< 0.00023 U	< 0.00024 U	< 0.00016 U	< 0.00019 U	< 0.0019 U	< 0.0061 U
MC1-AY37	0	N	7/7/2008	< 0.00028 U	< 0.00023 U	< 0.00019 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.0002 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 U
MC1-AY37	4	N	7/7/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-AY37	14	N	7/7/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-AY38	0	N	7/7/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-AY38	11	N	7/7/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-AY39	0	FD	7/7/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00018 U	0.021	< 0.0055 U
MC1-AY39	0	N	7/7/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 UJ	< 0.00061 U	< 0.00011 UJ	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 UJ	< 0.0017 U	< 0.0055 U
MC1-AY39	11	N	7/7/2008	< 0.00031 U	< 0.00025 U	< 0.00022 U	< 0.00028 U	< 0.00068 U	< 0.00012 U	< 0.00023 U	< 0.00024 U	< 0.00016 U	< 0.00019 U	< 0.0019 U	< 0.0062 U
MC1-AZ36	0	N	6/30/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				2,2-Dimethylpentane	2,3-Dimethylpentane	2,4-Dimethylpentane	2-Chlorotoluene	2-Nitropropane	2-Phenylbutane	3,3-dimethylpentane	3-ethylpentane	3-Methylhexane	4-Chlorotoluene	Acetone	Acetonitrile
MC1-AZ36	3	N	6/30/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-AZ36	13	N	6/30/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-AZ37	0	N	6/30/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 U
MC1-AZ37	12	N	6/30/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-BA36	0	N	6/30/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-BA36	12	N	6/30/2008	< 0.00031 U	< 0.00025 U	< 0.00022 U	< 0.00028 U	< 0.00067 U	< 0.00012 U	< 0.00023 U	< 0.00023 U	< 0.00016 U	< 0.00019 U	< 0.0019 U	< 0.0061 UJ
MC1-J01	0	FD	6/30/2008	< 0.0003 U	< 0.00025 U	< 0.00021 U	< 0.00027 U	< 0.00066 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00019 U	< 0.0019 UJ	< 0.0059 U
MC1-J01	0	N	6/30/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J01	3	N	6/30/2008	< 0.00032 U	< 0.00026 U	< 0.00022 U	< 0.00028 U	< 0.00069 U	< 0.00012 U	< 0.00023 U	< 0.00024 U	< 0.00016 U	< 0.0002 U	< 0.002 U	< 0.0062 U
MC1-J01	13	N	6/30/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J02	0	FD	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-J02	0	N	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-J02	8	N	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0017 U	< 0.0056 U
MC1-J02	18	N	6/26/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	0.017 J	< 0.0056 U
MC1-J03	0	N	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	0.023	< 0.0055 U
MC1-J03	6	N	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	0.012 J	< 0.0055 U
MC1-J03	16	N	6/26/2008	< 0.00032 U	< 0.00026 U	< 0.00022 U	< 0.00029 U	< 0.0007 U	< 0.00012 U	< 0.00023 U	< 0.00024 U	< 0.00016 U	< 0.0002 U	0.016 J	< 0.0063 U
MC1-J04	0	N	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-J04	8	N	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0017 U	< 0.0056 UJ
MC1-J04	18	N	6/26/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J05	0	N	7/1/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	0.033	< 0.0057 U
MC1-J05	9	N	7/1/2008	< 0.0003 U	< 0.00024 U	< 0.00021 U	< 0.00027 U	< 0.00065 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00019 U	0.036 J+	0.033 J+
MC1-J06	0	N	6/25/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 U
MC1-J06	8	N	6/25/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0017 U	< 0.0056 U
MC1-J06	18	N	6/25/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-J07	0	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J07	8	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J07	18	N	6/23/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J08	0	FD	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00061 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 UJ	< 0.0055 UJ
MC1-J08	0	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 UJ	< 0.0056 UJ
MC1-J08	9	N	6/23/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J08	19	N	6/23/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J09	0	N	6/24/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 UJ
MC1-J09	10	N	6/24/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J10	0	N	6/30/2008	< 0.00029 U	< 0.00024 U	< 0.00021 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00022 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0058 UJ
MC1-J10	3	N	6/30/2008	< 0.00031 U	< 0.00025 U	< 0.00021 U	< 0.00027 U	< 0.00067 U	< 0.00012 U	< 0.00023 U	< 0.00023 U	< 0.00016 U	< 0.00019 U	< 0.0019 U	< 0.006 UJ
MC1-J10	13	N	6/30/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J11	0	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	0.015 J	< 0.0056 UJ
MC1-J11	4	N	6/24/2008	< 0.00029 U	< 0.00024 U	< 0.00021 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00022 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	0.017 J	< 0.0058 UJ

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				2,2-Dimethylpentane	2,3-Dimethylpentane	2,4-Dimethylpentane	2-Chlorotoluene	2-Nitropropane	2-Phenylbutane	3,3-dimethylpentane	3-ethylpentane	3-Methylhexane	4-Chlorotoluene	Acetone	Acetonitrile
MC1-J11	14	N	6/24/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 U	< 0.0018 U	< 0.0056 UJ
MC1-J12	0	FD	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00022 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J12	0	N	6/25/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-J12	11	N	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J13	0	N	6/25/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-J13	12	N	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J14	0	N	6/25/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 U
MC1-J14	12	N	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.00021 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00022 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0058 U
MC1-J15	0	FD	6/26/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00025 U	< 0.00062 U	< 0.00011 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00017 U	< 0.0017 U	< 0.0055 UJ
MC1-J15	0	N	6/26/2008	< 0.0003 U	< 0.00024 U	< 0.00021 U	< 0.00027 U	< 0.00065 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00019 U	< 0.0018 U	< 0.0059 UJ
MC1-J15	11	N	6/26/2008	< 0.0003 U	< 0.00025 U	< 0.00021 U	< 0.00027 U	< 0.00066 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00019 U	< 0.0019 U	< 0.006 UJ
MC1-J16	0	N	6/26/2008	< 0.00029 U	< 0.00023 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0056 U
MC1-J16	3	N	6/26/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J16	13	N	6/26/2008	< 0.0003 U	< 0.00024 U	< 0.00021 U	< 0.00027 U	< 0.00065 U	< 0.00011 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0058 UJ
MC1-J17	0	N	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J17	10	N	6/25/2008	< 0.00029 U	< 0.00024 U	< 0.00021 U	< 0.00026 U	< 0.00065 U	< 0.00011 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0058 U
MC1-J18	0	FD	7/7/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J18	0	N	7/7/2008	< 0.0003 U	< 0.00024 U	< 0.00021 U	< 0.00027 U	< 0.00065 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00019 U	< 0.0018 U	< 0.0059 U
MC1-J18	12	N	7/7/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00063 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J19	0	N	7/7/2008	< 0.0003 U	< 0.00025 U	< 0.00021 U	< 0.00027 U	< 0.00066 U	< 0.00012 U	< 0.00022 U	< 0.00023 U	< 0.00015 U	< 0.00019 U	< 0.0019 U	< 0.0059 U
MC1-J19	4	N	7/7/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J19	14	N	7/7/2008	< 0.00029 U	< 0.00024 U	< 0.0002 U	< 0.00026 U	< 0.00064 U	< 0.00011 U	< 0.00021 U	< 0.00022 U	< 0.00015 U	< 0.00018 U	< 0.0018 U	< 0.0057 U
MC1-J20	0	N	7/7/2008	< 0.00028 U	< 0.00023 U	< 0.00019 U	< 0.00025 UJ	< 0.00061 U	< 0.00011 UJ	< 0.0002 U	< 0.00021 U	< 0.00014 U	< 0.00017 UJ	0.03 J+	< 0.0055 U
MC1-J20	10	N	7/7/2008	< 0.00028 U	< 0.00023 U	< 0.0002 U	< 0.00026 UJ	< 0.00062 U	< 0.00011 UJ	< 0.00021 U	< 0.00022 U	< 0.00014 U	< 0.00018 UJ	< 0.0018 U	< 0.0056 U

All units in mg/kg.

-- = no sample data.

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Volatile Organic Compounds (VOCs)											
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Benzene	Bromobenzene	Bromodichloromethane	Bromomethane	Carbon disulfide	Carbon tetrachloride	CFC-11	CFC-12	Chlorinated fluorocarbon (Freon 113)	Chlorobenzene	Chlorobromomethane	Chlorodibromomethane
MC1-AV37	0	N	6/24/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AV37	11	N	6/24/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AV38	0	FD	6/24/2008	0.00055 J	< 0.00012 UJ	< 0.00021 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AV38	0	N	6/24/2008	< 0.000087 U	< 0.00012 UJ	< 0.00021 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AV38	11	N	6/24/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AW36	0	N	7/7/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AW36	12	N	7/7/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00013 U
MC1-AW37	0	N	6/25/2008	< 0.000093 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-AW37	10	N	6/25/2008	< 0.000096 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00023 U	< 0.00024 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-AW38	0	N	6/24/2008	< 0.00009 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AW38	12	N	6/24/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AW39	0	N	6/24/2008	< 0.000088 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AW39	12	N	6/24/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX36	0	N	6/30/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX36	3	N	6/30/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX36	13	N	6/30/2008	< 0.0001 U	< 0.00014 U	< 0.00025 U	< 0.00015 U	< 0.00014 U	< 0.00024 U	< 0.00025 U	< 0.00033 U	< 0.00017 U	< 0.00012 U	< 0.00026 U	< 0.00014 U
MC1-AX37	0	N	6/26/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX37	10	N	6/26/2008	< 0.000094 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-AX38	0	N	6/25/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX38	11	N	6/25/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-AX39	0	N	6/23/2008	< 0.000088 U	< 0.00012 U	< 0.00021 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX39	3	N	6/23/2008	< 0.00009 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX39	13	N	6/23/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-AX40	0	N	6/23/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX40	5	N	6/23/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AX40	15	N	6/23/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY36	0	FD	7/1/2008	< 0.000088 U	< 0.00012 U	< 0.00021 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY36	0	N	7/1/2008	< 0.000088 U	< 0.00012 U	< 0.00021 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY36	3	N	7/1/2008	< 0.000096 U	< 0.00013 U	< 0.00024 U	< 0.00014 U	< 0.00013 U	< 0.00023 U	< 0.00024 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-AY36	13	N	7/1/2008	< 0.000098 U	< 0.00014 U	< 0.00024 U	< 0.00015 U	< 0.00014 U	< 0.00023 U	< 0.00025 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-AY37	0	N	7/7/2008	< 0.000088 U	< 0.00012 U	< 0.00021 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY37	4	N	7/7/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY37	14	N	7/7/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY38	0	N	7/7/2008	< 0.00009 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY38	11	N	7/7/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY39	0	FD	7/7/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY39	0	N	7/7/2008	< 0.000089 U	< 0.00012 UJ	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AY39	11	N	7/7/2008	< 0.000099 U	< 0.00014 U	< 0.00024 U	< 0.00015 U	< 0.00014 U	< 0.00023 U	< 0.00025 U	< 0.00033 U	< 0.00016 U	< 0.00012 U	< 0.00026 U	< 0.00013 U
MC1-AZ36	0	N	6/30/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Volatile Organic Compounds (VOCs)											
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	Benzene	Bromobenzene	Bromodichloromethane	Bromomethane	Carbon disulfide	Carbon tetrachloride	CFC-11	CFC-12	Chlorinated fluorocarbon (Freon 113)	Chlorobenzene	Chlorobromomethane	Chlorodibromomethane
MC1-AZ36	3	N	6/30/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AZ36	13	N	6/30/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-AZ37	0	N	6/30/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-AZ37	12	N	6/30/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-BA36	0	N	6/30/2008	< 0.000088 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-BA36	12	N	6/30/2008	< 0.000097 U	< 0.00014 U	< 0.00024 U	< 0.00015 U	< 0.00014 U	< 0.00023 U	< 0.00024 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-J01	0	FD	6/30/2008	< 0.000095 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00024 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-J01	0	N	6/30/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J01	3	N	6/30/2008	< 0.0001 U	< 0.00014 U	< 0.00025 U	< 0.00015 U	< 0.00014 U	< 0.00024 U	< 0.00025 U	< 0.00033 U	< 0.00017 U	< 0.00012 U	< 0.00026 U	< 0.00014 U
MC1-J01	13	N	6/30/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J02	0	FD	6/26/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J02	0	N	6/26/2008	< 0.000088 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J02	8	N	6/26/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J02	18	N	6/26/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J03	0	N	6/26/2008	< 0.000088 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J03	6	N	6/26/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J03	16	N	6/26/2008	< 0.0001 U	< 0.00014 U	< 0.00025 U	< 0.00015 U	< 0.00014 U	< 0.00024 U	< 0.00025 U	< 0.00033 U	< 0.00017 U	< 0.00012 U	< 0.00026 U	< 0.00014 U
MC1-J04	0	N	6/26/2008	< 0.000088 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J04	8	N	6/26/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J04	18	N	6/26/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J05	0	N	7/1/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J05	9	N	7/1/2008	< 0.000094 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00024 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-J06	0	N	6/25/2008	< 0.000088 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J06	8	N	6/25/2008	< 0.00009 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J06	18	N	6/25/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J07	0	N	6/23/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J07	8	N	6/23/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J07	18	N	6/23/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J08	0	FD	6/23/2008	< 0.000088 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J08	0	N	6/23/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J08	9	N	6/23/2008	< 0.00009 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J08	19	N	6/23/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J09	0	N	6/24/2008	< 0.000092 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J09	10	N	6/24/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J10	0	N	6/30/2008	< 0.000093 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-J10	3	N	6/30/2008	< 0.000097 U	< 0.00013 U	< 0.00024 U	< 0.00014 U	< 0.00013 U	< 0.00023 U	< 0.00024 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-J10	13	N	6/30/2008	< 0.000092 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J11	0	N	6/24/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J11	4	N	6/24/2008	< 0.000093 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				Benzene	Bromobenzene	Bromodichloromethane	Bromomethane	Carbon disulfide	Carbon tetrachloride	CFC-11	CFC-12	Chlorinated fluorocarbon (Freon 113)	Chlorobenzene	Chlorobromomethane	Chlorodibromomethane
MC1-J11	14	N	6/24/2008	< 0.00009 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J12	0	FD	6/25/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00013 U
MC1-J12	0	N	6/25/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J12	11	N	6/25/2008	< 0.000092 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J13	0	N	6/25/2008	< 0.00009 U	< 0.00013 U	< 0.00022 U	< 0.00013 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J13	12	N	6/25/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J14	0	N	6/25/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J14	12	N	6/25/2008	< 0.000093 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00013 U
MC1-J15	0	FD	6/26/2008	< 0.000089 U	< 0.00012 U	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J15	0	N	6/26/2008	< 0.000094 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00024 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-J15	11	N	6/26/2008	< 0.000096 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00023 U	< 0.00024 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-J16	0	N	6/26/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J16	3	N	6/26/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J16	13	N	6/26/2008	< 0.000094 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00024 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-J17	0	N	6/25/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J17	10	N	6/25/2008	< 0.000093 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-J18	0	FD	7/7/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J18	0	N	7/7/2008	< 0.000095 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00024 U	< 0.00031 U	< 0.00016 U	< 0.00012 U	< 0.00024 U	< 0.00013 U
MC1-J18	12	N	7/7/2008	< 0.000091 U	< 0.00013 U	< 0.00022 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J19	0	N	7/7/2008	< 0.000095 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00023 U	< 0.00024 U	< 0.00032 U	< 0.00016 U	< 0.00012 U	< 0.00025 U	< 0.00013 U
MC1-J19	4	N	7/7/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J19	14	N	7/7/2008	< 0.000092 U	< 0.00013 U	< 0.00023 U	< 0.00014 U	< 0.00013 U	< 0.00022 U	< 0.00023 U	< 0.00031 U	< 0.00015 U	< 0.00011 U	< 0.00024 U	< 0.00012 U
MC1-J20	0	N	7/7/2008	< 0.000088 U	< 0.00012 UJ	< 0.00021 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00022 U	< 0.00029 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U
MC1-J20	10	N	7/7/2008	< 0.00009 U	< 0.00012 UJ	< 0.00022 U	< 0.00013 U	< 0.00012 U	< 0.00021 U	< 0.00023 U	< 0.0003 U	< 0.00015 U	< 0.00011 U	< 0.00023 U	< 0.00012 U

All units in mg/kg.

-- = no sample data.

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 13 of 21)

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethylene	cis-1,3-Dichloropropylene	Cymene	Dibromomethane	Dichloromethane	Ethanol	Ethylbenzene	Hexane, 2-methyl-	Isopropylbenzene
MC1-AV37	0	N	6/24/2008	< 0.00047 U	< 0.0001 U	< 0.00028 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.0091	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AV37	11	N	6/24/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.009	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AV38	0	FD	6/24/2008	< 0.00046 U	< 0.0001 U	< 0.00027 U	< 0.000054 U	< 0.0001 U	< 0.00012 UJ	< 0.00017 U	0.019	0.47 J	0.00037 J	< 0.0002 U	< 0.0001 UJ
MC1-AV38	0	N	6/24/2008	< 0.00046 U	< 0.0001 U	< 0.00027 U	< 0.000054 U	< 0.0001 U	< 0.00012 UJ	< 0.00017 U	0.016	< 0.047 UJ	< 0.000058 U	< 0.0002 U	< 0.0001 UJ
MC1-AV38	11	N	6/24/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.0059	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-AW36	0	N	7/7/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AW36	12	N	7/7/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000062 U	< 0.00022 U	< 0.00011 U
MC1-AW37	0	N	6/25/2008	< 0.00049 U	< 0.00011 U	< 0.00029 U	< 0.000058 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00074 U	< 0.051 UJ	< 0.000062 U	< 0.00022 U	< 0.00011 U
MC1-AW37	10	N	6/25/2008	< 0.00051 U	< 0.00011 U	< 0.0003 U	< 0.00006 U	< 0.00011 U	< 0.00014 U	< 0.00018 U	< 0.00076 U	< 0.052 UJ	< 0.000064 U	< 0.00022 U	< 0.00011 U
MC1-AW38	0	N	6/24/2008	< 0.00047 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.011	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AW38	12	N	6/24/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.011	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AW39	0	N	6/24/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.012	0.29 J	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-AW39	12	N	6/24/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.0067	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AX36	0	N	6/30/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 U	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-AX36	3	N	6/30/2008	< 0.00047 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 U	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AX36	13	N	6/30/2008	< 0.00053 U	< 0.00012 U	< 0.00031 U	< 0.000062 U	< 0.00012 U	< 0.00014 U	< 0.00019 U	< 0.0008 U	< 0.055 U	< 0.000067 U	< 0.00023 U	< 0.00012 U
MC1-AX37	0	N	6/26/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AX37	10	N	6/26/2008	< 0.0005 U	< 0.00011 U	< 0.00029 U	< 0.000058 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00074 U	< 0.051 UJ	< 0.000062 U	< 0.00022 U	< 0.00011 U
MC1-AX38	0	N	6/25/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-AX38	11	N	6/25/2008	< 0.00048 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-AX39	0	N	6/23/2008	< 0.00046 U	< 0.0001 U	< 0.00027 U	< 0.000054 U	< 0.0001 U	< 0.00012 U	< 0.00017 U	< 0.00069 U	< 0.048 UJ	< 0.000058 U	< 0.0002 U	< 0.0001 U
MC1-AX39	3	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AX39	13	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-AX40	0	N	6/23/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-AX40	5	N	6/23/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-AX40	15	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AY36	0	FD	7/1/2008	< 0.00046 U	< 0.0001 U	< 0.00027 U	< 0.000054 U	< 0.0001 U	< 0.00012 U	< 0.00017 U	< 0.00069 U	< 0.048 UJ	< 0.000058 U	< 0.0002 U	< 0.0001 U
MC1-AY36	0	N	7/1/2008	< 0.00046 U	< 0.0001 U	< 0.00027 U	< 0.000054 U	< 0.0001 U	< 0.00012 U	< 0.00017 U	< 0.00069 U	< 0.048 UJ	< 0.000058 U	< 0.0002 U	< 0.0001 U
MC1-AY36	3	N	7/1/2008	< 0.00051 U	< 0.00011 U	< 0.0003 U	< 0.00006 U	< 0.00011 U	< 0.00014 U	< 0.00018 U	< 0.00076 U	< 0.052 UJ	< 0.000064 U	< 0.00022 U	< 0.00011 U
MC1-AY36	13	N	7/1/2008	< 0.00052 U	< 0.00011 U	< 0.0003 U	< 0.000061 U	< 0.00011 U	< 0.00014 U	< 0.00019 U	< 0.00077 U	< 0.053 UJ	< 0.000065 U	< 0.00023 U	< 0.00012 U
MC1-AY37	0	N	7/7/2008	< 0.00046 U	< 0.0001 U	< 0.00027 U	< 0.000054 U	< 0.0001 U	< 0.00012 U	< 0.00017 U	< 0.00069 U	< 0.048 UJ	< 0.000058 U	< 0.0002 U	< 0.0001 U
MC1-AY37	4	N	7/7/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AY37	14	N	7/7/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AY38	0	N	7/7/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AY38	11	N	7/7/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AY39	0	FD	7/7/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-AY39	0	N	7/7/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 UJ	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.00011 UJ
MC1-AY39	11	N	7/7/2008	< 0.00052 U	< 0.00011 U	< 0.0003 U	< 0.000061 U	< 0.00011 U	< 0.00014 U	< 0.00019 U	< 0.00078 U	< 0.054 UJ	< 0.000066 U	< 0.00023 U	< 0.00012 U
MC1-AZ36	0	N	6/30/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.0001 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethylene	cis-1,3-Dichloropropylene	Cymene	Dibromomethane	Dichloromethane	Ethanol	Ethylbenzene	Hexane, 2-methyl-	Isopropylbenzene
MC1-AZ36	3	N	6/30/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-AZ36	13	N	6/30/2008	< 0.00048 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-AZ37	0	N	6/30/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-AZ37	12	N	6/30/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-BA36	0	N	6/30/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 U	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-BA36	12	N	6/30/2008	< 0.00052 U	< 0.00011 U	< 0.0003 U	< 0.00006 U	< 0.00011 U	< 0.00014 U	< 0.00019 U	< 0.00077 U	< 0.053 U	< 0.000065 U	< 0.00023 U	< 0.00012 U
MC1-J01	0	FD	6/30/2008	< 0.00051 U	< 0.00011 U	< 0.00029 U	< 0.000059 U	< 0.00011 U	< 0.00014 U	< 0.00018 U	< 0.00075 U	< 0.052 UJ	< 0.000064 U	< 0.00022 U	< 0.00011 U
MC1-J01	0	N	6/30/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J01	3	N	6/30/2008	< 0.00053 U	< 0.00012 U	< 0.00031 U	< 0.000062 U	< 0.00012 U	< 0.00014 U	< 0.00019 U	< 0.00079 U	< 0.055 UJ	< 0.000067 U	< 0.00023 U	< 0.00012 U
MC1-J01	13	N	6/30/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000057 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J02	0	FD	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 U	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-J02	0	N	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 U	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-J02	8	N	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J02	18	N	6/26/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J03	0	N	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.0046 J	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-J03	6	N	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-J03	16	N	6/26/2008	< 0.00053 U	< 0.00012 U	< 0.00031 U	< 0.000062 U	< 0.00012 U	< 0.00014 U	< 0.00019 U	< 0.0008 U	< 0.055 UJ	< 0.000067 U	< 0.00023 U	< 0.00012 U
MC1-J04	0	N	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 U	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-J04	8	N	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00028 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 U	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J04	18	N	6/26/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 U	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J05	0	N	7/1/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J05	9	N	7/1/2008	< 0.0005 U	< 0.00011 U	< 0.00029 U	< 0.000059 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00075 U	< 0.051 UJ	< 0.000063 U	< 0.00022 U	< 0.00011 U
MC1-J06	0	N	6/25/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-J06	8	N	6/25/2008	< 0.00047 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J06	18	N	6/25/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J07	0	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J07	8	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J07	18	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J08	0	FD	6/23/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.0001 U
MC1-J08	0	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J08	9	N	6/23/2008	< 0.00047 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J08	19	N	6/23/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J09	0	N	6/24/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	0.0093	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J09	10	N	6/24/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.011	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J10	0	N	6/30/2008	< 0.00049 U	< 0.00011 U	< 0.00029 U	< 0.000058 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 U	< 0.000062 U	< 0.00022 U	< 0.00011 U
MC1-J10	3	N	6/30/2008	< 0.00051 U	< 0.00011 U	< 0.0003 U	< 0.00006 U	< 0.00011 U	< 0.00014 U	< 0.00018 U	< 0.00077 U	< 0.053 U	< 0.000065 U	< 0.00023 U	< 0.00011 U
MC1-J10	13	N	6/30/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J11	0	N	6/24/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.0075	0.19 J	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J11	4	N	6/24/2008	< 0.00049 U	< 0.00011 U	< 0.00029 U	< 0.000058 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	0.0082	< 0.051 UJ	< 0.000062 U	< 0.00022 U	< 0.00011 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethylene	cis-1,3-Dichloropropylene	Cymene	Dibromomethane	Dichloromethane	Ethanol	Ethylbenzene	Hexane, 2-methyl-	Isopropylbenzene
MC1-J11	14	N	6/24/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	0.0083	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J12	0	FD	6/25/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00022 U	< 0.00011 U
MC1-J12	0	N	6/25/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J12	11	N	6/25/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J13	0	N	6/25/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 U
MC1-J13	12	N	6/25/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J14	0	N	6/25/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 UJ	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-J14	12	N	6/25/2008	< 0.00049 U	< 0.00011 U	< 0.00029 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000062 U	< 0.00022 U	< 0.00011 U
MC1-J15	0	FD	6/26/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000055 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.0007 U	< 0.048 U	< 0.000059 U	< 0.00021 U	< 0.00011 U
MC1-J15	0	N	6/26/2008	< 0.0005 U	< 0.00011 U	< 0.00029 U	< 0.000059 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00075 U	< 0.051 U	< 0.000063 U	< 0.00022 U	< 0.00011 U
MC1-J15	11	N	6/26/2008	< 0.00051 U	< 0.00011 U	< 0.0003 U	< 0.00006 U	< 0.00011 U	< 0.00014 U	< 0.00018 U	< 0.00076 U	< 0.052 U	< 0.000064 U	< 0.00022 U	< 0.00011 U
MC1-J16	0	N	6/26/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.049 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J16	3	N	6/26/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J16	13	N	6/26/2008	< 0.0005 U	< 0.00011 U	< 0.00029 U	< 0.000058 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00074 U	< 0.051 U	< 0.000063 U	< 0.00022 U	< 0.00011 U
MC1-J17	0	N	6/25/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J17	10	N	6/25/2008	< 0.00049 U	< 0.00011 U	< 0.00029 U	< 0.000058 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00074 U	< 0.051 UJ	< 0.000062 U	< 0.00022 U	< 0.00011 U
MC1-J18	0	FD	7/7/2008	< 0.00048 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J18	0	N	7/7/2008	< 0.0005 U	< 0.00011 U	< 0.00029 U	< 0.000059 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00075 U	< 0.051 UJ	< 0.000063 U	< 0.00022 U	< 0.00011 U
MC1-J18	12	N	7/7/2008	< 0.00048 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00017 U	< 0.00072 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J19	0	N	7/7/2008	< 0.00051 U	< 0.00011 U	< 0.00029 U	< 0.000059 U	< 0.00011 U	< 0.00014 U	< 0.00018 U	< 0.00076 U	< 0.052 UJ	< 0.000064 U	< 0.00022 U	< 0.00011 U
MC1-J19	4	N	7/7/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J19	14	N	7/7/2008	< 0.00049 U	< 0.00011 U	< 0.00028 U	< 0.000057 U	< 0.00011 U	< 0.00013 U	< 0.00018 U	< 0.00073 U	< 0.05 UJ	< 0.000061 U	< 0.00021 U	< 0.00011 U
MC1-J20	0	N	7/7/2008	< 0.00047 U	< 0.0001 U	< 0.00027 U	< 0.000054 U	< 0.0001 U	< 0.00013 UJ	< 0.00017 U	< 0.00069 U	< 0.048 UJ	< 0.000059 U	< 0.0002 U	< 0.0001 UJ
MC1-J20	10	N	7/7/2008	< 0.00048 U	< 0.0001 U	< 0.00028 U	< 0.000056 U	< 0.0001 U	< 0.00013 UJ	< 0.00017 U	< 0.00071 U	< 0.049 UJ	< 0.00006 U	< 0.00021 U	< 0.00011 UJ

All units in mg/kg.
-- = no sample data.

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				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-Heptane	n-Propyl benzene	o-Xylene	Styrene (monomer)
MC1-AV37	0	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AV37	11	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AV38	0	FD	6/24/2008	0.00088 J	< 0.00018 U	0.018 J	< 0.00012 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 UJ	< 0.00016 U	< 0.00011 UJ	< 0.000076 U	< 0.00017 U
MC1-AV38	0	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.00087 U	< 0.00012 U	< 0.00029 U	< 0.00024 U	< 0.000089 U	< 0.00018 UJ	< 0.00016 U	< 0.00011 UJ	< 0.000076 U	< 0.00017 U
MC1-AV38	11	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AW36	0	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AW36	12	N	7/7/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.000081 U	< 0.00018 U
MC1-AW37	0	N	6/25/2008	< 0.00018 U	< 0.00019 U	< 0.00093 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000095 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.000081 U	< 0.00019 U
MC1-AW37	10	N	6/25/2008	< 0.00018 U	< 0.00019 U	< 0.00096 U	< 0.00014 U	< 0.00032 U	< 0.00026 U	< 0.000098 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000084 U	< 0.00019 U
MC1-AW38	0	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AW38	12	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AW39	0	N	6/24/2008	< 0.00017 U	< 0.00018 U	0.0051 J	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-AW39	12	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AX36	0	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AX36	3	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AX36	13	N	6/30/2008	< 0.00019 U	< 0.0002 U	< 0.001 U	< 0.00014 U	< 0.00033 U	< 0.00027 U	< 0.0001 U	< 0.00021 U	< 0.00019 U	< 0.00013 U	< 0.000088 U	< 0.0002 U
MC1-AX37	0	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AX37	10	N	6/26/2008	< 0.00018 U	< 0.00019 U	< 0.00093 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000096 U	< 0.00019 U	< 0.00018 U	< 0.00012 U	< 0.000082 U	< 0.00019 U
MC1-AX38	0	N	6/25/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-AX38	11	N	6/25/2008	< 0.00017 U	< 0.00019 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.00008 U	< 0.00018 U
MC1-AX39	0	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.00087 U	< 0.00012 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00016 U	< 0.00011 U	< 0.000077 U	< 0.00017 U
MC1-AX39	3	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AX39	13	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AX40	0	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-AX40	5	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-AX40	15	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AY36	0	FD	7/1/2008	< 0.00017 U	< 0.00018 U	< 0.00087 U	< 0.00012 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00016 U	< 0.00011 U	< 0.000077 U	< 0.00017 U
MC1-AY36	0	N	7/1/2008	< 0.00017 U	< 0.00018 U	< 0.00087 U	< 0.00012 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00016 U	< 0.00011 U	< 0.000076 U	< 0.00017 U
MC1-AY36	3	N	7/1/2008	< 0.00018 U	< 0.00019 U	< 0.00096 U	< 0.00014 U	< 0.00032 U	< 0.00026 U	< 0.000099 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000084 U	< 0.00019 U
MC1-AY36	13	N	7/1/2008	< 0.00019 U	< 0.0002 U	< 0.00097 U	< 0.00014 U	< 0.00032 U	< 0.00027 U	< 0.0001 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000085 U	< 0.00019 U
MC1-AY37	0	N	7/7/2008	< 0.00017 U	< 0.00018 U	0.0013 J	< 0.00012 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00016 U	< 0.00011 U	< 0.000077 U	< 0.00017 U
MC1-AY37	4	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AY37	14	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AY38	0	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AY38	11	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AY39	0	FD	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-AY39	0	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 UJ	< 0.00017 U	< 0.00011 UJ	< 0.000078 U	< 0.00018 U
MC1-AY39	11	N	7/7/2008	< 0.00019 U	< 0.0002 U	< 0.00099 U	< 0.00014 U	< 0.00033 U	< 0.00027 U	< 0.0001 U	< 0.0002 U	< 0.00019 U	< 0.00012 U	< 0.000086 U	< 0.0002 U
MC1-AZ36	0	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				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-Heptane	n-Propyl benzene	o-Xylene	Styrene (monomer)
MC1-AZ36	3	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-AZ36	13	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.00008 U	< 0.00018 U
MC1-AZ37	0	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-AZ37	12	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-BA36	0	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-BA36	12	N	6/30/2008	< 0.00019 U	< 0.0002 U	< 0.00097 U	< 0.00014 U	< 0.00032 U	< 0.00027 U	< 0.0001 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000085 U	< 0.00019 U
MC1-J01	0	FD	6/30/2008	< 0.00018 U	< 0.00019 U	< 0.00095 U	< 0.00014 U	< 0.00032 U	< 0.00026 U	< 0.000098 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000083 U	< 0.00019 U
MC1-J01	0	N	6/30/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J01	3	N	6/30/2008	< 0.00019 U	< 0.0002 U	< 0.001 U	< 0.00014 U	< 0.00033 U	< 0.00027 U	< 0.0001 U	< 0.00021 U	< 0.00019 U	< 0.00013 U	< 0.000088 U	< 0.0002 U
MC1-J01	13	N	6/30/2008	< 0.00017 U	< 0.00018 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.00008 U	< 0.00018 U
MC1-J02	0	FD	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J02	0	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00016 U	< 0.00011 U	< 0.000077 U	< 0.00017 U
MC1-J02	8	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J02	18	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J03	0	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00016 U	< 0.00011 U	< 0.000077 U	< 0.00017 U
MC1-J03	6	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J03	16	N	6/26/2008	< 0.00019 U	< 0.0002 U	< 0.001 U	< 0.00014 U	< 0.00033 U	< 0.00027 U	< 0.0001 U	< 0.00021 U	< 0.00019 U	< 0.00013 U	< 0.000088 U	< 0.0002 U
MC1-J04	0	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-J04	8	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J04	18	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J05	0	N	7/1/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J05	9	N	7/1/2008	< 0.00018 U	< 0.00019 U	< 0.00094 U	< 0.00013 U	< 0.00031 U	< 0.00026 U	< 0.000097 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000083 U	< 0.00019 U
MC1-J06	0	N	6/25/2008	< 0.00017 U	< 0.00018 U	< 0.00088 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-J06	8	N	6/25/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J06	18	N	6/25/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J07	0	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J07	8	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J07	18	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J08	0	FD	6/23/2008	< 0.00017 U	< 0.00018 U	0.0079 J	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000077 U	< 0.00018 U
MC1-J08	0	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J08	9	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J08	19	N	6/23/2008	< 0.00017 U	< 0.00018 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J09	0	N	6/24/2008	< 0.00018 U	< 0.00019 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J09	10	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J10	0	N	6/30/2008	< 0.00018 U	< 0.00019 U	< 0.00093 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000095 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.000081 U	< 0.00018 U
MC1-J10	3	N	6/30/2008	< 0.00018 U	< 0.0002 U	< 0.00096 U	< 0.00014 U	< 0.00032 U	< 0.00026 U	< 0.000099 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000085 U	< 0.00019 U
MC1-J10	13	N	6/30/2008	< 0.00018 U	< 0.00019 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.00008 U	< 0.00018 U
MC1-J11	0	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J11	4	N	6/24/2008	< 0.00018 U	< 0.00019 U	< 0.00093 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000095 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.000081 U	< 0.00019 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)											
				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-Heptane	n-Propyl benzene	o-Xylene	Styrene (monomer)
MC1-J11	14	N	6/24/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J12	0	FD	6/25/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.000081 U	< 0.00018 U
MC1-J12	0	N	6/25/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J12	11	N	6/25/2008	< 0.00017 U	< 0.00019 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.00008 U	< 0.00018 U
MC1-J13	0	N	6/25/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000092 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J13	12	N	6/25/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J14	0	N	6/25/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J14	12	N	6/25/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000095 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.000081 U	< 0.00018 U
MC1-J15	0	FD	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.00089 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.000091 U	< 0.00018 U	< 0.00017 U	< 0.00011 U	< 0.000078 U	< 0.00018 U
MC1-J15	0	N	6/26/2008	< 0.00018 U	< 0.00019 U	< 0.00094 U	< 0.00013 U	< 0.00031 U	< 0.00026 U	< 0.000097 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000082 U	< 0.00019 U
MC1-J15	11	N	6/26/2008	< 0.00018 U	< 0.00019 U	< 0.00096 U	< 0.00014 U	< 0.00032 U	< 0.00026 U	< 0.000098 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000084 U	< 0.00019 U
MC1-J16	0	N	6/26/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.000079 U	< 0.00018 U
MC1-J16	3	N	6/26/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J16	13	N	6/26/2008	< 0.00018 U	< 0.00019 U	< 0.00094 U	< 0.00013 U	< 0.00031 U	< 0.00026 U	< 0.000096 U	< 0.00019 U	< 0.00018 U	< 0.00012 U	< 0.000082 U	< 0.00019 U
MC1-J17	0	N	6/25/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J17	10	N	6/25/2008	< 0.00018 U	< 0.00019 U	< 0.00093 U	< 0.00013 U	< 0.00031 U	< 0.00025 U	< 0.000095 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.000081 U	< 0.00019 U
MC1-J18	0	FD	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000093 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.00008 U	< 0.00018 U
MC1-J18	0	N	7/7/2008	< 0.00018 U	< 0.00019 U	< 0.00094 U	< 0.00013 U	< 0.00031 U	< 0.00026 U	< 0.000097 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000083 U	< 0.00019 U
MC1-J18	12	N	7/7/2008	< 0.00017 U	< 0.00019 U	< 0.00091 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00011 U	< 0.00008 U	< 0.00018 U
MC1-J19	0	N	7/7/2008	< 0.00018 U	< 0.00019 U	< 0.00095 U	< 0.00014 U	< 0.00032 U	< 0.00026 U	< 0.000098 U	< 0.0002 U	< 0.00018 U	< 0.00012 U	< 0.000083 U	< 0.00019 U
MC1-J19	4	N	7/7/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J19	14	N	7/7/2008	< 0.00018 U	< 0.00019 U	< 0.00092 U	< 0.00013 U	< 0.0003 U	< 0.00025 U	< 0.000094 U	< 0.00019 U	< 0.00017 U	< 0.00012 U	< 0.00008 U	< 0.00018 U
MC1-J20	0	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.00087 U	< 0.00013 U	< 0.00029 U	< 0.00024 U	< 0.00009 U	< 0.00018 UJ	< 0.00016 U	< 0.00011 UJ	< 0.000077 U	< 0.00017 U
MC1-J20	10	N	7/7/2008	< 0.00017 U	< 0.00018 U	< 0.0009 U	< 0.00013 U	< 0.0003 U	< 0.00024 U	< 0.000092 U	< 0.00019 UJ	< 0.00017 U	< 0.00011 UJ	< 0.000078 U	< 0.00018 U

All units in mg/kg.
-- = no sample data.

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Volatile Organic Compounds (VOCs)									
Sample ID	Depth (ft bgs)	Sample Type	Sample Date	tert-Butyl benzene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	trans-1,3-Dichloropropylene	Tribromomethane	Trichloroethylene	Vinyl acetate	Vinyl chloride	Xylenes (total)
MC1-AV37	0	N	6/24/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00011 U	< 0.00024 U
MC1-AV37	11	N	6/24/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AV38	0	FD	6/24/2008	< 0.0001 UJ	< 0.000088 U	0.0015 J	< 0.000091 U	< 0.0001 U	< 0.000059 UJ	< 0.0001 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-AV38	0	N	6/24/2008	< 0.0001 UJ	< 0.000087 U	0.00065 J	< 0.00009 U	< 0.0001 U	< 0.000059 UJ	< 0.0001 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-AV38	11	N	6/24/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00025 U	< 0.00011 U	< 0.00024 U
MC1-AW36	0	N	7/7/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AW36	12	N	7/7/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000096 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00025 U
MC1-AW37	0	N	6/25/2008	< 0.00011 U	< 0.000093 U	< 0.00034 U	< 0.000096 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-AW37	10	N	6/25/2008	< 0.00011 U	< 0.000096 U	< 0.00035 U	< 0.000099 U	< 0.00011 U	< 0.000065 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-AW38	0	N	6/24/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AW38	12	N	6/24/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AW39	0	N	6/24/2008	< 0.0001 U	< 0.000088 U	< 0.00033 U	< 0.000091 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-AW39	12	N	6/24/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AX36	0	N	6/30/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00024 U
MC1-AX36	3	N	6/30/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AX36	13	N	6/30/2008	< 0.00012 U	< 0.0001 U	< 0.00037 U	< 0.0001 U	< 0.00012 U	< 0.000068 U	< 0.00012 U	< 0.00028 U	< 0.00013 U	< 0.00027 U
MC1-AX37	0	N	6/26/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AX37	10	N	6/26/2008	< 0.00011 U	< 0.000094 U	< 0.00035 U	< 0.000097 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-AX38	0	N	6/25/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00024 U
MC1-AX38	11	N	6/25/2008	< 0.00011 U	< 0.000091 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AX39	0	N	6/23/2008	< 0.0001 U	< 0.000088 U	< 0.00032 U	< 0.000091 U	< 0.0001 U	< 0.000059 U	< 0.0001 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-AX39	3	N	6/23/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AX39	13	N	6/23/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AX40	0	N	6/23/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00024 U
MC1-AX40	5	N	6/23/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00024 U
MC1-AX40	15	N	6/23/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AY36	0	FD	7/1/2008	< 0.0001 U	< 0.000088 U	< 0.00032 U	< 0.000091 U	< 0.0001 U	< 0.000059 U	< 0.0001 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-AY36	0	N	7/1/2008	< 0.0001 U	< 0.000088 U	< 0.00032 U	< 0.000091 U	< 0.0001 U	< 0.000059 U	< 0.0001 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-AY36	3	N	7/1/2008	< 0.00011 U	< 0.000096 U	< 0.00036 U	< 0.0001 U	< 0.00011 U	< 0.000065 U	< 0.00012 U	< 0.00027 U	< 0.00012 U	< 0.00026 U
MC1-AY36	13	N	7/1/2008	< 0.00011 U	< 0.000098 U	< 0.00036 U	< 0.0001 U	< 0.00011 U	< 0.000066 U	< 0.00012 U	< 0.00027 U	< 0.00013 U	< 0.00026 U
MC1-AY37	0	N	7/7/2008	< 0.0001 U	< 0.000088 U	< 0.00032 U	< 0.000091 U	< 0.0001 U	< 0.000059 U	< 0.0001 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-AY37	4	N	7/7/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AY37	14	N	7/7/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AY38	0	N	7/7/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AY38	11	N	7/7/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AY39	0	FD	7/7/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00025 U	< 0.00011 U	< 0.00024 U
MC1-AY39	0	N	7/7/2008	< 0.0001 UJ	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 UJ	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00024 U
MC1-AY39	11	N	7/7/2008	< 0.00011 U	< 0.000099 U	< 0.00037 U	< 0.0001 U	< 0.00011 U	< 0.000067 U	< 0.00012 U	< 0.00027 U	< 0.00013 U	< 0.00026 U
MC1-AZ36	0	N	6/30/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00024 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Volatile Organic Compounds (VOCs)									
Sample ID	**Depth (ft bgs)**	**Sample Type**	**Sample Date**	tert-Butyl benzene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	trans-1,3-Dichloropropylene	Tribromomethane	Trichloroethylene	Vinyl acetate	Vinyl chloride	Xylenes (total)
MC1-AZ36	3	N	6/30/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AZ36	13	N	6/30/2008	< 0.00011 U	< 0.000091 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-AZ37	0	N	6/30/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00024 U
MC1-AZ37	12	N	6/30/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-BA36	0	N	6/30/2008	< 0.0001 U	< 0.000088 U	< 0.00033 U	< 0.000091 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-BA36	12	N	6/30/2008	< 0.00011 U	< 0.000097 U	< 0.00036 U	< 0.0001 U	< 0.00011 U	< 0.000066 U	< 0.00012 U	< 0.00027 U	< 0.00013 U	< 0.00026 U
MC1-J01	0	FD	6/30/2008	< 0.00011 U	< 0.000095 U	< 0.00035 U	< 0.000099 U	< 0.00011 U	< 0.000065 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J01	0	N	6/30/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J01	3	N	6/30/2008	< 0.00012 U	< 0.0001 U	< 0.00037 U	< 0.0001 U	< 0.00012 U	< 0.000068 U	< 0.00012 U	< 0.00028 U	< 0.00013 U	< 0.00027 U
MC1-J01	13	N	6/30/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J02	0	FD	6/26/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00025 U	< 0.00011 U	< 0.00024 U
MC1-J02	0	N	6/26/2008	< 0.0001 U	< 0.000088 U	< 0.00033 U	< 0.000091 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-J02	8	N	6/26/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J02	18	N	6/26/2008	< 0.0001 U	< 0.000091 U	< 0.00033 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J03	0	N	6/26/2008	< 0.0001 U	< 0.000088 U	< 0.00033 U	< 0.000091 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-J03	6	N	6/26/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00025 U	< 0.00011 U	< 0.00024 U
MC1-J03	16	N	6/26/2008	< 0.00012 U	< 0.0001 U	< 0.00037 U	< 0.0001 U	< 0.00012 U	< 0.000068 U	< 0.00012 U	< 0.00028 U	< 0.00013 U	< 0.00027 U
MC1-J04	0	N	6/26/2008	< 0.0001 U	< 0.000088 U	< 0.00033 U	< 0.000091 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-J04	8	N	6/26/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J04	18	N	6/26/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J05	0	N	7/1/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J05	9	N	7/1/2008	< 0.00011 U	< 0.000094 U	< 0.00035 U	< 0.000098 U	< 0.00011 U	< 0.000064 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J06	0	N	6/25/2008	< 0.0001 U	< 0.000088 U	< 0.00033 U	< 0.000091 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-J06	8	N	6/25/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J06	18	N	6/25/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J07	0	N	6/23/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J07	8	N	6/23/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J07	18	N	6/23/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J08	0	FD	6/23/2008	< 0.0001 U	< 0.000088 U	0.0005 J	< 0.000091 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-J08	0	N	6/23/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J08	9	N	6/23/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J08	19	N	6/23/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J09	0	N	6/24/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J09	10	N	6/24/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J10	0	N	6/30/2008	< 0.00011 U	< 0.000093 U	< 0.00034 U	< 0.000096 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J10	3	N	6/30/2008	< 0.00011 U	< 0.000097 U	< 0.00036 U	< 0.0001 U	< 0.00011 U	< 0.000066 U	< 0.00012 U	< 0.00027 U	< 0.00012 U	< 0.00026 U
MC1-J10	13	N	6/30/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J11	0	N	6/24/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J11	4	N	6/24/2008	< 0.00011 U	< 0.000093 U	< 0.00034 U	< 0.000096 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U

TABLE B-11
SOIL VOLATILE ORGANIC COMPOUNDS (VOCS) DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Depth (ft bgs)	Sample Type	Sample Date	Volatile Organic Compounds (VOCs)									
				tert-Butyl benzene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	trans-1,3-Dichloropropylene	Tribromomethane	Trichloroethylene	Vinyl acetate	Vinyl chloride	Xylenes (total)
MC1-J11	14	N	6/24/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J12	0	FD	6/25/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J12	0	N	6/25/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J12	11	N	6/25/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J13	0	N	6/25/2008	< 0.0001 U	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J13	12	N	6/25/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J14	0	N	6/25/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00025 U	< 0.00011 U	< 0.00024 U
MC1-J14	12	N	6/25/2008	< 0.00011 U	< 0.000093 U	< 0.00034 U	< 0.000096 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J15	0	FD	6/26/2008	< 0.0001 U	< 0.000089 U	< 0.00033 U	< 0.000092 U	< 0.0001 U	< 0.00006 U	< 0.00011 U	< 0.00025 U	< 0.00011 U	< 0.00024 U
MC1-J15	0	N	6/26/2008	< 0.00011 U	< 0.000094 U	< 0.00035 U	< 0.000098 U	< 0.00011 U	< 0.000064 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J15	11	N	6/26/2008	< 0.00011 U	< 0.000096 U	< 0.00035 U	< 0.000099 U	< 0.00011 U	< 0.000065 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J16	0	N	6/26/2008	< 0.0001 U	< 0.000091 U	< 0.00034 U	< 0.000094 U	< 0.0001 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J16	3	N	6/26/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	R	< 0.00012 U	< 0.00024 U
MC1-J16	13	N	6/26/2008	< 0.00011 U	< 0.000094 U	< 0.00035 U	< 0.000097 U	< 0.00011 U	< 0.000064 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J17	0	N	6/25/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J17	10	N	6/25/2008	< 0.00011 U	< 0.000093 U	< 0.00035 U	< 0.000096 U	< 0.00011 U	< 0.000063 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J18	0	FD	7/7/2008	< 0.00011 U	< 0.000091 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J18	0	N	7/7/2008	< 0.00011 U	< 0.000095 U	< 0.00035 U	< 0.000098 U	< 0.00011 U	< 0.000064 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J18	12	N	7/7/2008	< 0.00011 U	< 0.000091 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J19	0	N	7/7/2008	< 0.00011 U	< 0.000095 U	< 0.00035 U	< 0.000099 U	< 0.00011 U	< 0.000065 U	< 0.00011 U	< 0.00026 U	< 0.00012 U	< 0.00025 U
MC1-J19	4	N	7/7/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J19	14	N	7/7/2008	< 0.00011 U	< 0.000092 U	< 0.00034 U	< 0.000095 U	< 0.00011 U	< 0.000062 U	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U
MC1-J20	0	N	7/7/2008	< 0.0001 UJ	< 0.000088 U	< 0.00032 U	< 0.000091 U	< 0.0001 U	< 0.00006 UJ	< 0.0001 U	< 0.00024 U	< 0.00011 U	< 0.00023 U
MC1-J20	10	N	7/7/2008	< 0.0001 UJ	< 0.00009 U	< 0.00033 U	< 0.000093 U	< 0.0001 U	< 0.000061 UJ	< 0.00011 U	< 0.00025 U	< 0.00012 U	< 0.00024 U

All units in mg/kg.

-- = no sample data.

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Sample Type	Sample Date	Analytical Method	Surface Flux									
				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-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)
MC1-BA36	N	5/28/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.52 UJ	< 0.34 UJ	< 1.6 UJ
MC1-BA36	N	5/28/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0026 UJ	--	--	< 0.01 UJ
MC1-J01	N	5/28/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J01	N	5/28/2008	TO-15 SIM	--	< 0.0032 UJ	< 0.0025 U	--	--	--	< 0.0023 UJ	--	--	< 0.0097 UJ
MC1-J02	FD	5/28/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.36 UJ	< 0.5 UJ	< 0.33 UJ	< 1.6 UJ
MC1-J02	FD	5/28/2008	TO-15 SIM	--	< 0.0037 UJ	< 0.0029 U	--	--	--	< 0.0026 UJ	--	--	< 0.011 UJ
MC1-J02	N	5/28/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	0.057 J	< 0.34 UJ	< 1.6 UJ
MC1-J02	N	5/28/2008	TO-15 SIM	--	< 0.004 UJ	< 0.0031 U	--	--	--	< 0.0028 UJ	--	--	< 0.012 UJ
MC1-J04	N	5/28/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J04	N	5/28/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0023 UJ	--	--	< 0.01 UJ
MC1-J05	N	5/28/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J05	N	5/28/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0023 U	--	--	< 0.01 UJ
MC1-J07	N	5/27/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	0.077 J	0.021 J	< 1.6 UJ
MC1-J07	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0023 UJ	--	--	< 0.01 UJ
MC1-J08	N	5/27/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	0.071 J	< 0.34 UJ	< 1.6 UJ
MC1-J08	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0026 UJ	--	--	< 0.01 UJ
MC1-J09	N	5/27/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J09	N	5/27/2008	TO-15 SIM	--	< 0.0037 UJ	< 0.0029 U	--	--	--	< 0.0026 UJ	--	--	< 0.011 UJ
MC1-J10	FD	5/27/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	0.054 J	< 0.34 UJ	< 1.6 UJ
MC1-J10	FD	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0026 UJ	--	--	< 0.01 UJ
MC1-J10	N	5/27/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J10	N	5/27/2008	TO-15 SIM	--	< 0.0037 UJ	< 0.0029 U	--	--	--	< 0.0026 UJ	--	--	< 0.011 UJ
MC1-J11	N	5/27/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	0.12 J	< 0.34 UJ	0.17 J
MC1-J11	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0023 UJ	--	--	< 0.01 UJ
MC1-J12	N	5/27/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J12	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0035 UJ	--	--	< 0.01 UJ
MC1-J13	N	5/27/2008	TO-15	< 0.19 U	< 0.49 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.38 UJ	< 0.52 UJ	< 0.35 UJ	< 1.6 UJ
MC1-J13	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0026 U	--	--	< 0.01 UJ
MC1-J14	N	5/28/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J14	N	5/28/2008	TO-15 SIM	--	< 0.0037 UJ	< 0.0029 U	--	--	--	< 0.0026 U	--	--	< 0.011 UJ
MC1-J15	FD	5/28/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.36 UJ	< 0.5 UJ	< 0.33 UJ	< 1.6 UJ
MC1-J15	FD	5/28/2008	TO-15 SIM	--	< 0.0045 UJ	< 0.0036 UJ	--	--	--	< 0.003 UJ	--	--	< 0.013 UJ
MC1-J15	N	5/28/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	0.071 J	< 0.34 UJ	< 1.6 UJ
MC1-J15	N	5/28/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0023 UJ	--	--	< 0.01 UJ
MC1-J16	N	5/28/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	0.026 J	< 1.6 UJ
MC1-J16	N	5/28/2008	TO-15 SIM	--	< 0.0032 UJ	< 0.0025 U	--	--	--	< 0.0026 UJ	--	--	< 0.0093 UJ
MC1-J17	N	5/27/2008	TO-15	< 0.19 U	< 0.48 UJ	< 0.19 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.37 UJ	< 0.51 UJ	< 0.34 UJ	< 1.6 UJ
MC1-J17	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0026 UJ	--	--	< 0.01 UJ
MC1-J18	N	5/28/2008	TO-15	< 0.18 U	< 0.46 UJ	< 0.18 U	< 0.14 U	< 0.13 U	< 0.11 U	< 0.36 UJ	< 0.5 UJ	< 0.33 UJ	< 1.5 UJ

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Sample Type	Sample Date	Analytical Method	Surface Flux									
				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-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)
MC1-J18	N	5/28/2008	TO-15 SIM	--	< 0.0032 UJ	< 0.0025 U	--	--	--	< 0.0023 UJ	--	--	< 0.0093 UJ
MC1-J19	N	5/28/2008	TO-15	< 0.18 U	< 0.46 UJ	< 0.18 U	< 0.14 U	< 0.13 U	< 0.11 U	< 0.36 UJ	0.048 J	0.045 J	< 1.5 UJ
MC1-J19	N	5/28/2008	TO-15 SIM	--	< 0.0034 UJ	< 0.0027 U	--	--	--	< 0.0023 U	--	--	< 0.01 UJ
MC1-J20	N	5/27/2008	TO-15	< 0.19 U	< 0.47 UJ	< 0.18 U	< 0.14 U	< 0.14 U	< 0.12 U	< 0.36 UJ	0.088 J	< 0.33 UJ	< 1.6 UJ
MC1-J20	N	5/27/2008	TO-15 SIM	--	< 0.0037 UJ	< 0.0029 U	--	--	--	< 0.0026 UJ	--	--	< 0.011 UJ

All units in $\mu g/m^2,min^{-1}$.
-- = no sample data.

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Sample Type	Sample Date	Analytical Method	Surface Flux									
				1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	1,4-Dioxane	2,2-Dichloropropane
MC1-BA36	N	5/28/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.35 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.21 UJ	< 0.17 U
MC1-BA36	N	5/28/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 UJ	--	< 0.003 UJ	--	< 0.003 UJ	--	--
MC1-J01	N	5/28/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.41 UJ	< 0.13 U	< 0.41 UJ	< 0.2 UJ	< 0.16 U
MC1-J01	N	5/28/2008	TO-15 SIM	< 0.0035 U	< 0.0028 UJ	< 0.0019 U	< 0.0021 UJ	--	< 0.0028 UJ	--	< 0.0028 UJ	--	--
MC1-J02	FD	5/28/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.41 UJ	< 0.13 U	< 0.41 UJ	< 0.2 UJ	< 0.16 U
MC1-J02	FD	5/28/2008	TO-15 SIM	< 0.0041 U	< 0.0032 UJ	< 0.0022 U	< 0.0025 UJ	--	< 0.0032 UJ	--	< 0.0032 UJ	--	--
MC1-J02	N	5/28/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.41 UJ	< 0.13 U	< 0.41 UJ	0.017 J	< 0.16 U
MC1-J02	N	5/28/2008	TO-15 SIM	< 0.0044 U	< 0.0035 UJ	< 0.0023 U	< 0.0027 UJ	--	< 0.0035 UJ	--	< 0.0035 UJ	--	--
MC1-J04	N	5/28/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.41 UJ	< 0.13 U	< 0.41 UJ	< 0.2 UJ	< 0.16 U
MC1-J04	N	5/28/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	0.0012 J	< 0.0023 UJ	--	< 0.003 UJ	--	< 0.003 UJ	--	--
MC1-J05	N	5/28/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.2 UJ	< 0.17 U
MC1-J05	N	5/28/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 U	--	< 0.003 U	--	< 0.003 U	--	--
MC1-J07	N	5/27/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.41 UJ	< 0.13 U	< 0.41 UJ	< 0.2 UJ	< 0.16 U
MC1-J07	N	5/27/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 U	--	< 0.003 UJ	--	< 0.003 UJ	--	--
MC1-J08	N	5/27/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.2 UJ	< 0.17 U
MC1-J08	N	5/27/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 U	--	< 0.003 UJ	--	< 0.003 UJ	--	--
MC1-J09	N	5/27/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.2 UJ	< 0.17 U
MC1-J09	N	5/27/2008	TO-15 SIM	< 0.0041 U	< 0.0032 UJ	0.0012 J	< 0.0025 U	--	< 0.0032 UJ	--	< 0.006 UJ	--	--
MC1-J10	FD	5/27/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.2 UJ	< 0.17 U
MC1-J10	FD	5/27/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 U	--	< 0.003 UJ	--	< 0.003 UJ	--	--
MC1-J10	N	5/27/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.2 UJ	< 0.17 U
MC1-J10	N	5/27/2008	TO-15 SIM	< 0.0041 U	< 0.0032 UJ	< 0.0022 U	< 0.0025 U	--	< 0.0032 UJ	--	< 0.0049 UJ	--	--
MC1-J11	N	5/27/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.2 UJ	< 0.17 U
MC1-J11	N	5/27/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 U	--	< 0.003 UJ	--	< 0.003 UJ	--	--
MC1-J12	N	5/27/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	0.019 J	< 0.42 UJ	< 0.14 U	< 0.42 UJ	0.17 J	< 0.17 U
MC1-J12	N	5/27/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	0.0059 J	< 0.0023 U	--	< 0.003 U	--	< 0.003 UJ	--	--
MC1-J13	N	5/27/2008	TO-15	< 0.27 UJ	< 0.43 UJ	< 0.14 U	< 0.16 U	< 0.35 U	< 0.43 UJ	< 0.14 U	< 0.43 UJ	< 0.21 UJ	< 0.17 U
MC1-J13	N	5/27/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	0.0011 J	< 0.0023 U	--	< 0.003 U	--	< 0.003 U	--	--
MC1-J14	N	5/28/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	0.017 J	< 0.41 UJ	< 0.13 U	< 0.41 UJ	< 0.2 UJ	< 0.16 U
MC1-J14	N	5/28/2008	TO-15 SIM	< 0.0041 U	< 0.0032 UJ	0.0011 J	< 0.0025 U	--	< 0.0032 UJ	--	< 0.0032 UJ	--	--
MC1-J15	FD	5/28/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.41 UJ	< 0.13 U	< 0.41 UJ	0.083 J	< 0.16 U
MC1-J15	FD	5/28/2008	TO-15 SIM	< 0.005 UJ	< 0.0039 UJ	0.0017 J	< 0.003 UJ	--	< 0.0039 UJ	--	0.0025 J	--	--
MC1-J15	N	5/28/2008	TO-15	< 0.27 UJ	< 0.42 UJ	< 0.14 U	< 0.16 U	< 0.35 U	< 0.42 UJ	< 0.14 U	0.042 J	0.028 J	< 0.17 U
MC1-J15	N	5/28/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 UJ	--	< 0.003 UJ	--	0.0086 J	--	--
MC1-J16	N	5/28/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	< 0.34 U	< 0.41 UJ	< 0.13 U	< 0.41 UJ	< 0.2 UJ	< 0.16 U
MC1-J16	N	5/28/2008	TO-15 SIM	< 0.0035 U	< 0.0028 UJ	< 0.0019 U	< 0.0021 U	--	< 0.0028 UJ	--	< 0.0028 UJ	--	--
MC1-J17	N	5/27/2008	TO-15	< 0.27 UJ	0.032 J	< 0.14 U	< 0.16 U	< 0.34 U	< 0.42 UJ	< 0.14 U	< 0.42 UJ	< 0.2 UJ	< 0.17 U
MC1-J17	N	5/27/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	0.0037 J	< 0.0023 U	--	< 0.003 UJ	--	< 0.003 UJ	--	--
MC1-J18	N	5/28/2008	TO-15	< 0.26 UJ	< 0.4 UJ	< 0.14 U	< 0.15 U	< 0.33 U	< 0.4 UJ	< 0.13 U	< 0.4 UJ	< 0.2 UJ	< 0.16 U

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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				Surface Flux									
Sample ID	**Sample Type**	**Sample Date**	**Analytical Method**	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	1,4-Dioxane	2,2-Dichloropropane
MC1-J18	N	5/28/2008	TO-15 SIM	< 0.0035 U	< 0.0028 UJ	0.0014 J	< 0.0021 UJ	--	< 0.0028 UJ	--	< 0.0028 UJ	--	--
MC1-J19	N	5/28/2008	TO-15	< 0.26 UJ	< 0.4 UJ	< 0.14 U	< 0.15 U	< 0.33 U	< 0.4 UJ	< 0.13 U	< 0.4 UJ	0.017 J	< 0.16 U
MC1-J19	N	5/28/2008	TO-15 SIM	< 0.0038 U	< 0.003 UJ	< 0.002 U	< 0.0023 U	--	< 0.003 U	--	< 0.003 U	--	--
MC1-J20	N	5/27/2008	TO-15	< 0.26 UJ	< 0.41 UJ	< 0.14 U	< 0.16 U	0.055 J	< 0.41 UJ	< 0.13 U	< 0.41 UJ	< 0.2 UJ	< 0.16 U
MC1-J20	N	5/27/2008	TO-15 SIM	0.027 J	< 0.0032 UJ	< 0.0022 U	< 0.0025 U	--	< 0.0032 UJ	--	< 0.0032 UJ	--	--

All units in $\mu g/m^2,min^{-1}$.
-- = no sample data.

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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Sample ID	Sample Type	Sample Date	Analytical Method	Surface Flux									
				2-Methyl-1-propanol	2-Phenylbutane	Acetone	Acetonitrile	Benzene	Benzyl chloride	Bromodichloromethane	Bromomethane	Carbon disulfide	Carbon tetrachloride
MC1-BA36	N	5/28/2008	TO-15	< 0.51 UJ	< 0.36 U	0.31 J	< 0.28 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	0.017 J	< 0.22 U
MC1-BA36	N	5/28/2008	TO-15 SIM	--	--	--	--	0.0069 J	< 0.0022 UJ	< 0.0023 U	--	--	0.0041 J
MC1-J01	N	5/28/2008	TO-15	< 0.5 UJ	< 0.35 U	0.48 J	< 0.28 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	0.014 J	< 0.22 U
MC1-J01	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.0015 UJ	< 0.002 UJ	< 0.0023 U	--	--	< 0.0029 UJ
MC1-J02	FD	5/28/2008	TO-15	< 0.5 UJ	< 0.35 U	0.17 J	< 0.27 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.087 U	< 0.22 U
MC1-J02	FD	5/28/2008	TO-15 SIM	--	--	--	--	< 0.0039 UJ	< 0.0022 UJ	< 0.0026 U	--	--	0.0097 J
MC1-J02	N	5/28/2008	TO-15	< 0.5 UJ	< 0.35 U	0.26 J	< 0.28 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J02	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.0045 UJ	< 0.0024 UJ	< 0.0028 U	--	--	0.012 J
MC1-J04	N	5/28/2008	TO-15	< 0.5 UJ	< 0.35 U	0.21 J	< 0.28 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J04	N	5/28/2008	TO-15 SIM	--	--	--	--	0.006 J	< 0.002 UJ	< 0.0023 U	--	--	0.013 J
MC1-J05	N	5/28/2008	TO-15	< 0.51 UJ	< 0.36 U	0.17 J	< 0.28 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	0.27	< 0.22 U
MC1-J05	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.0038 UJ	< 0.002 UJ	< 0.0023 UJ	--	--	0.014 J
MC1-J07	N	5/27/2008	TO-15	< 0.5 UJ	< 0.35 U	0.26 J	< 0.28 UJ	0.016 J	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J07	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.0016 UJ	< 0.002 UJ	< 0.0023 UJ	--	--	0.0041 J
MC1-J08	N	5/27/2008	TO-15	< 0.51 UJ	< 0.36 U	0.25 J	0.39 J	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	0.098 J+	< 0.22 U
MC1-J08	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.0016 UJ	< 0.0022 UJ	< 0.0023 UJ	--	--	0.014 J
MC1-J09	N	5/27/2008	TO-15	< 0.51 UJ	< 0.36 U	0.7 J	0.17 J	0.011 J	< 0.3 UJ	< 0.17 U	0.03 J	0.057 J	< 0.22 U
MC1-J09	N	5/27/2008	TO-15 SIM	--	--	--	--	0.0065 J	< 0.0022 UJ	< 0.0026 UJ	--	--	0.015 J
MC1-J10	FD	5/27/2008	TO-15	0.059 J	< 0.36 U	0.42 J	< 0.28 UJ	< 0.11 U	0.024 J	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J10	FD	5/27/2008	TO-15 SIM	--	--	--	--	< 0.0016 UJ	< 0.0022 UJ	< 0.0023 UJ	--	--	0.0048 J
MC1-J10	N	5/27/2008	TO-15	< 0.51 UJ	< 0.36 U	0.83 J	< 0.28 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J10	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.0017 UJ	< 0.0022 UJ	< 0.0026 UJ	--	--	0.0053 J
MC1-J11	N	5/27/2008	TO-15	< 0.51 UJ	< 0.36 U	0.48 J	< 0.28 UJ	0.016 J	< 0.3 UJ	< 0.17 U	< 0.13 U	0.044 J	< 0.22 U
MC1-J11	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.0016 UJ	< 0.002 UJ	< 0.0023 UJ	--	--	0.0053 J
MC1-J12	N	5/27/2008	TO-15	< 0.51 UJ	< 0.36 U	0.55 J	0.29 J	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	0.03 J	0.099 J
MC1-J12	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.005 UJ	< 0.002 UJ	< 0.0023 UJ	--	--	0.12 J
MC1-J13	N	5/27/2008	TO-15	< 0.52 UJ	< 0.37 U	0.34 J	0.054 J	< 0.11 U	< 0.31 UJ	< 0.18 U	< 0.14 U	0.029 J	< 0.22 U
MC1-J13	N	5/27/2008	TO-15 SIM	--	--	--	--	0.006 J	< 0.0022 UJ	< 0.0023 UJ	--	--	0.0078 J
MC1-J14	N	5/28/2008	TO-15	< 0.5 UJ	< 0.35 U	< 0.24 UJ	< 0.28 UJ	0.014 J	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J14	N	5/28/2008	TO-15 SIM	--	--	--	--	0.012 J	0.0016 J	< 0.0026 U	--	--	0.007 J
MC1-J15	FD	5/28/2008	TO-15	< 0.5 UJ	< 0.35 U	0.21 J	< 0.27 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	0.027 J	< 0.22 U
MC1-J15	FD	5/28/2008	TO-15 SIM	--	--	--	--	< 0.0053 UJ	0.0022 J	< 0.0031 UJ	--	--	0.0031 J
MC1-J15	N	5/28/2008	TO-15	0.089 J	< 0.36 U	0.37 J	< 0.28 UJ	< 0.11 U	< 0.3 UJ	< 0.17 U	< 0.13 U	0.019 J	< 0.22 U
MC1-J15	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.0054 UJ	0.0014 J	< 0.0023 U	--	--	0.0034 J
MC1-J16	N	5/28/2008	TO-15	< 0.5 UJ	< 0.35 U	0.7 J	0.54 J	0.023 J	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J16	N	5/28/2008	TO-15 SIM	--	--	--	--	0.01 J	0.0024 J	< 0.0021 U	--	--	0.0039 J
MC1-J17	N	5/27/2008	TO-15	< 0.51 UJ	< 0.36 U	0.7 J	0.16 J	0.041 J	< 0.3 UJ	< 0.17 U	< 0.13 U	< 0.088 U	< 0.22 U
MC1-J17	N	5/27/2008	TO-15 SIM	--	--	--	--	0.023 J	< 0.0022 UJ	< 0.0023 UJ	--	--	0.0039 J
MC1-J18	N	5/28/2008	TO-15	< 0.49 UJ	< 0.35 U	0.35 J	< 0.27 UJ	0.011 J	< 0.29 UJ	< 0.17 U	< 0.13 U	0.013 J	< 0.21 U

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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				Surface Flux									
Sample ID	**Sample Type**	**Sample Date**	**Analytical Method**	2-Methyl-1-propanol	2-Phenylbutane	Acetone	Acetonitrile	Benzene	Benzyl chloride	Bromodichloromethane	Bromomethane	Carbon disulfide	Carbon tetrachloride
MC1-J18	N	5/28/2008	TO-15 SIM	--	--	--	--	0.0064 J	< 0.002 UJ	< 0.0021 UJ	--	--	0.013 J
MC1-J19	N	5/28/2008	TO-15	< 0.49 UJ	< 0.35 U	1.6 J	0.17 J	< 0.11 U	< 0.29 UJ	< 0.17 U	< 0.13 U	< 0.086 U	< 0.21 U
MC1-J19	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.0029 UJ	< 0.002 UJ	< 0.0023 UJ	--	--	0.0063 J
MC1-J20	N	5/27/2008	TO-15	< 0.5 UJ	< 0.35 U	0.22 J	0.068 J	< 0.11 U	< 0.3 UJ	< 0.17 U	0.11 J	< 0.087 U	< 0.22 U
MC1-J20	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.0017 UJ	< 0.0022 UJ	< 0.0026 UJ	--	--	0.0029 J

All units in $\mu g/m^2,min^{-1}$.
-- = no sample data.

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Sample Type	Sample Date	Analytical Method	Surface Flux									
				CFC-11	CFC-12	Chlorinated fluorocarbon (Freon 113)	Chlorobenzene	Chlorobromomethane	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethylene
MC1-BA36	N	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	0.035 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.092 UJ	< 0.17 U	0.0096 J	< 0.14 U
MC1-BA36	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 U	--	0.013 J	--	--
MC1-J01	N	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	0.035 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	0.034 J	0.016 J	< 0.14 U
MC1-J01	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 U	--	0.0097 J	--	--
MC1-J02	FD	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	0.038 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	< 0.17 U	0.021 J	< 0.14 U
MC1-J02	FD	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0033 U	--	0.0056 J	--	--
MC1-J02	N	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	0.041 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	< 0.17 U	0.026 J	< 0.14 U
MC1-J02	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0036 U	--	0.0054 J	--	--
MC1-J04	N	5/28/2008	TO-15	0.019 J	< 0.17 UJ	0.053 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	< 0.17 U	0.029 J	< 0.14 U
MC1-J04	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 U	--	0.0049 J	--	--
MC1-J05	N	5/28/2008	TO-15	0.032 J	< 0.17 U	0.029 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.091 UJ	0.022 J	0.03 J	< 0.14 U
MC1-J05	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 U	--	0.0095 J	--	--
MC1-J07	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.26 U	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	0.036 J	< 0.071 U	< 0.14 U
MC1-J07	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 UJ	--	0.016 J	--	--
MC1-J08	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.27 UJ	< 0.16 U	< 0.18 U	< 0.26 U	< 0.091 UJ	< 0.17 U	< 0.071 U	< 0.14 U
MC1-J08	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 UJ	--	0.0037 J	--	--
MC1-J09	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.27 U	< 0.16 U	< 0.18 U	< 0.26 U	< 0.091 UJ	0.077 J	0.099	< 0.14 U
MC1-J09	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0033 UJ	--	0.081 J	--	--
MC1-J10	FD	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.27 U	< 0.16 U	< 0.18 U	< 0.26 U	< 0.091 UJ	< 0.17 U	0.022 J	< 0.14 U
MC1-J10	FD	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 UJ	--	0.0088 J	--	--
MC1-J10	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.27 U	< 0.16 U	< 0.18 U	< 0.26 U	< 0.091 UJ	< 0.17 U	0.019 J	< 0.14 U
MC1-J10	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0033 UJ	--	0.0041 J	--	--
MC1-J11	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.27 U	< 0.16 U	< 0.18 U	< 0.26 U	< 0.091 UJ	< 0.17 U	< 0.071 U	< 0.14 U
MC1-J11	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 UJ	--	0.0022 J	--	--
MC1-J12	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	0.029 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.091 UJ	0.073 J	0.083	< 0.14 U
MC1-J12	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 UJ	--	0.057 J	--	--
MC1-J13	N	5/27/2008	TO-15	< 0.2 U	< 0.17 U	< 0.27 U	< 0.17 U	< 0.19 U	< 0.27 U	< 0.093 UJ	< 0.17 U	0.017 J	< 0.14 U
MC1-J13	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 U	--	0.003 J	--	--
MC1-J14	N	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	< 0.26 U	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	< 0.17 U	0.012 J	< 0.14 U
MC1-J14	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0033 U	--	0.015 J	--	--
MC1-J15	FD	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	0.032 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	< 0.17 U	0.014 J	< 0.14 U
MC1-J15	FD	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0039 UJ	--	0.015 J	--	--
MC1-J15	N	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	0.032 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.092 UJ	< 0.17 U	0.018 J	< 0.14 U
MC1-J15	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 U	--	0.0082 J	--	--
MC1-J16	N	5/28/2008	TO-15	< 0.19 U	< 0.17 UJ	0.05 J	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	< 0.17 U	0.051 J	< 0.14 U
MC1-J16	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0026 UJ	--	0.0054 J	--	--
MC1-J17	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.27 U	< 0.16 U	< 0.18 U	< 0.26 U	0.028 J	< 0.17 U	0.094	< 0.14 U
MC1-J17	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 UJ	--	0.013 J	--	--
MC1-J18	N	5/28/2008	TO-15	0.024 J	< 0.16 UJ	0.032 J	< 0.16 U	0.018 J	< 0.25 U	< 0.088 UJ	0.13 J	0.034 J	< 0.13 U

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
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				Surface Flux									
Sample ID	**Sample Type**	**Sample Date**	**Analytical Method**	CFC-11	CFC-12	Chlorinated fluorocarbon (Freon 113)	Chlorobenzene	Chlorobromomethane	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethylene
MC1-J18	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0026 U	--	0.048 J	--	--
MC1-J19	N	5/28/2008	TO-15	< 0.19 U	< 0.16 U	0.027 J	< 0.16 U	< 0.18 U	< 0.25 U	< 0.088 UJ	0.019 J	0.038 J	< 0.13 U
MC1-J19	N	5/28/2008	TO-15 SIM	--	--	--	--	--	< 0.0029 U	--	0.014 J	--	--
MC1-J20	N	5/27/2008	TO-15	< 0.19 U	< 0.17 U	< 0.26 U	< 0.16 U	< 0.18 U	< 0.26 U	< 0.09 UJ	0.058 J	0.043 J	< 0.14 U
MC1-J20	N	5/27/2008	TO-15 SIM	--	--	--	--	--	< 0.0033 UJ	--	0.044 J	--	--

All units in $\mu g/m^2,min^{-1}$.
-- = no sample data.

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Surface Flux									
Sample ID	Sample Type	Sample Date	Analytical Method	cis-1,3-Dichloropropylene	Cymene	Dibromomethane	Dichloromethane	Ethanol	Ethylbenzene	Hexachloro-1,3-butadiene	Isopropylbenzene	m & p-Xylene	Methyl ethyl ketone
MC1-BA36	N	5/28/2008	TO-15	< 0.16 U	< 0.36 U	< 0.23 U	< 0.12 U	< 0.32 UJ	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	< 0.16 U
MC1-BA36	N	5/28/2008	TO-15 SIM	--	--	--	0.0016 J	--	--	< 0.014 UJ	--	--	--
MC1-J01	N	5/28/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	0.16 J	< 0.15 U	< 0.73 UJ	< 0.33 U	< 0.3 UJ	0.017 J
MC1-J01	N	5/28/2008	TO-15 SIM	--	--	--	0.0013 J	--	--	< 0.013 UJ	--	--	--
MC1-J02	FD	5/28/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.73 UJ	< 0.32 U	< 0.3 UJ	< 0.16 U
MC1-J02	FD	5/28/2008	TO-15 SIM	--	--	--	0.002 J	--	--	< 0.015 UJ	--	--	--
MC1-J02	N	5/28/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	0.089 J	< 0.15 U	< 0.73 UJ	< 0.33 U	< 0.3 UJ	0.24
MC1-J02	N	5/28/2008	TO-15 SIM	--	--	--	0.0027 J	--	--	< 0.016 UJ	--	--	--
MC1-J04	N	5/28/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	0.021 J	< 0.15 U	< 0.73 UJ	< 0.33 U	< 0.3 UJ	0.13 J
MC1-J04	N	5/28/2008	TO-15 SIM	--	--	--	0.0033 J	--	--	< 0.014 UJ	--	--	--
MC1-J05	N	5/28/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	< 0.16 U
MC1-J05	N	5/28/2008	TO-15 SIM	--	--	--	0.0028 J	--	--	< 0.014 UJ	--	--	--
MC1-J07	N	5/27/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.73 UJ	< 0.33 U	0.033 J	< 0.16 U
MC1-J07	N	5/27/2008	TO-15 SIM	--	--	--	0.0012 J	--	--	< 0.014 UJ	--	--	--
MC1-J08	N	5/27/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	< 0.16 U
MC1-J08	N	5/27/2008	TO-15 SIM	--	--	--	0.0024 J	--	--	< 0.014 UJ	--	--	--
MC1-J09	N	5/27/2008	TO-15	< 0.16 U	0.021 J	< 0.22 U	< 0.12 U	0.067 J	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	< 0.16 U
MC1-J09	N	5/27/2008	TO-15 SIM	--	--	--	< 0.0019 U	--	--	< 0.015 UJ	--	--	--
MC1-J10	FD	5/27/2008	TO-15	< 0.16 U	0.074 J	< 0.22 U	< 0.12 U	0.11 J	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	< 0.16 U
MC1-J10	FD	5/27/2008	TO-15 SIM	--	--	--	0.0017 J	--	--	< 0.014 UJ	--	--	--
MC1-J10	N	5/27/2008	TO-15	< 0.16 U	0.019 J	< 0.22 U	< 0.12 U	0.045 J	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	0.025 J
MC1-J10	N	5/27/2008	TO-15 SIM	--	--	--	0.0015 J	--	--	< 0.015 UJ	--	--	--
MC1-J11	N	5/27/2008	TO-15	< 0.16 U	0.35 J	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	< 0.16 U
MC1-J11	N	5/27/2008	TO-15 SIM	--	--	--	< 0.0017 U	--	--	< 0.014 UJ	--	--	--
MC1-J12	N	5/27/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	0.021 J	0.099 J	< 0.15 U	< 0.74 UJ	0.019 J	< 0.3 UJ	< 0.16 U
MC1-J12	N	5/27/2008	TO-15 SIM	--	--	--	0.012 J	--	--	< 0.014 UJ	--	--	--
MC1-J13	N	5/27/2008	TO-15	< 0.16 U	< 0.36 U	< 0.23 U	< 0.12 U	0.048 J	< 0.15 U	< 0.75 UJ	< 0.34 U	< 0.31 UJ	< 0.17 U
MC1-J13	N	5/27/2008	TO-15 SIM	--	--	--	0.0016 J	--	--	< 0.014 UJ	--	--	--
MC1-J14	N	5/28/2008	TO-15	< 0.16 U	< 0.35 UJ	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.73 UJ	0.017 J	< 0.3 UJ	0.027 J
MC1-J14	N	5/28/2008	TO-15 SIM	--	--	--	< 0.0019 UJ	--	--	< 0.015 UJ	--	--	--
MC1-J15	FD	5/28/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.73 UJ	< 0.32 U	< 0.3 UJ	< 0.16 U
MC1-J15	FD	5/28/2008	TO-15 SIM	--	--	--	< 0.0023 UJ	--	--	< 0.018 UJ	--	--	--
MC1-J15	N	5/28/2008	TO-15	< 0.16 U	0.027 J	< 0.23 U	< 0.12 U	0.11 J	< 0.15 U	< 0.74 UJ	< 0.33 U	< 0.3 UJ	0.045 J
MC1-J15	N	5/28/2008	TO-15 SIM	--	--	--	0.0015 J	--	--	< 0.014 UJ	--	--	--
MC1-J16	N	5/28/2008	TO-15	< 0.16 U	< 0.35 UJ	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.73 UJ	< 0.33 U	0.065 J	0.014 J
MC1-J16	N	5/28/2008	TO-15 SIM	--	--	--	< 0.0032 UJ	--	--	< 0.013 UJ	--	--	--
MC1-J17	N	5/27/2008	TO-15	< 0.16 U	0.019 J	< 0.22 U	< 0.12 U	0.084 J	0.048 J	< 0.74 UJ	< 0.33 U	0.13 J	< 0.16 U
MC1-J17	N	5/27/2008	TO-15 SIM	--	--	--	0.0024 J	--	--	< 0.014 UJ	--	--	--
MC1-J18	N	5/28/2008	TO-15	< 0.15 U	< 0.34 U	< 0.22 U	0.027 J	0.028 J	< 0.15 U	< 0.71 UJ	< 0.32 U	0.033 J	0.082 J

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 10 of 14)

Sample ID	Sample Type	Sample Date	Analytical Method	Surface Flux									
				cis-1,3-Dichloropropylene	Cymene	Dibromomethane	Dichloromethane	Ethanol	Ethylbenzene	Hexachloro-1,3-butadiene	Isopropylbenzene	m & p-Xylene	Methyl ethyl ketone
MC1-J18	N	5/28/2008	TO-15 SIM	--	--	--	0.012 J	--	--	< 0.013 UJ	--	--	--
MC1-J19	N	5/28/2008	TO-15	< 0.15 U	< 0.34 U	< 0.22 U	< 0.12 U	0.061 J	< 0.15 U	< 0.71 UJ	< 0.32 U	< 0.29 UJ	< 0.16 U
MC1-J19	N	5/28/2008	TO-15 SIM	--	--	--	0.0015 J	--	--	< 0.014 UJ	--	--	--
MC1-J20	N	5/27/2008	TO-15	< 0.16 U	< 0.35 U	< 0.22 U	< 0.12 U	< 0.31 UJ	< 0.15 U	< 0.73 UJ	0.055 J	< 0.3 UJ	< 0.16 U
MC1-J20	N	5/27/2008	TO-15 SIM	--	--	--	< 0.0019 U	--	--	< 0.015 UJ	--	--	--

All units in $\mu g/m^2,min^{-1}$.
-- = no sample data.

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

				Surface Flux									
Sample ID	**Sample Type**	**Sample Date**	**Analytical Method**	Methyl iodide	Methyl isobutyl ketone	Methyl n-butyl ketone	MTBE (Methyl tert-butyl ether)	Naphthalene	n-Butyl benzene	n-Heptane	n-Propyl benzene	o-Xylene	Styrene (monomer)
MC1-BA36	N	5/28/2008	TO-15	< 0.41 U	< 0.12 U	0.019 J	< 0.088 U	--	< 0.36 UJ	0.03 J	< 0.3 U	< 0.15 UJ	< 0.15 UJ
MC1-BA36	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J01	N	5/28/2008	TO-15	< 0.4 U	< 0.12 U	< 0.23 UJ	< 0.087 U	--	< 0.35 UJ	0.013 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J01	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.013 UJ	--	--	--	--	--
MC1-J02	FD	5/28/2008	TO-15	< 0.4 U	< 0.12 U	0.017 J	< 0.087 U	--	< 0.35 UJ	0.022 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J02	FD	5/28/2008	TO-15 SIM	--	--	--	--	< 0.015 UJ	--	--	--	--	--
MC1-J02	N	5/28/2008	TO-15	< 0.4 U	0.017 J	0.033 J	< 0.087 U	--	< 0.35 UJ	0.025 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J02	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.017 UJ	--	--	--	--	--
MC1-J04	N	5/28/2008	TO-15	< 0.4 U	< 0.12 U	0.016 J	< 0.087 U	--	< 0.35 UJ	0.022 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J04	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J05	N	5/28/2008	TO-15	< 0.4 U	< 0.12 U	< 0.23 UJ	< 0.088 U	--	< 0.36 UJ	0.016 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J05	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J07	N	5/27/2008	TO-15	< 0.4 U	< 0.12 U	0.014 J	< 0.087 U	--	< 0.35 UJ	0.033 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J07	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J08	N	5/27/2008	TO-15	< 0.4 U	< 0.12 U	0.019 J	< 0.088 U	--	< 0.36 UJ	0.024 J+	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J08	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J09	N	5/27/2008	TO-15	< 0.4 U	0.017 J	0.027 J	< 0.088 U	--	< 0.36 UJ	0.017 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J09	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.015 UJ	--	--	--	--	--
MC1-J10	FD	5/27/2008	TO-15	< 0.4 U	0.016 J	0.046 J	< 0.088 U	--	< 0.36 UJ	0.025 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J10	FD	5/27/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J10	N	5/27/2008	TO-15	< 0.4 U	0.013 J	0.02 J	< 0.088 U	--	< 0.36 UJ	0.019 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J10	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.015 UJ	--	--	--	--	--
MC1-J11	N	5/27/2008	TO-15	< 0.4 U	0.013 J	0.036 J	< 0.088 U	--	< 0.36 UJ	0.027 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J11	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J12	N	5/27/2008	TO-15	< 0.4 U	< 0.12 U	0.014 J	< 0.088 U	--	< 0.36 UJ	0.02 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J12	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J13	N	5/27/2008	TO-15	< 0.41 U	< 0.12 U	< 0.24 UJ	< 0.09 U	--	< 0.37 UJ	0.016 J	< 0.3 U	< 0.15 UJ	< 0.15 UJ
MC1-J13	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J14	N	5/28/2008	TO-15	< 0.4 U	< 0.12 U	< 0.23 UJ	< 0.087 U	--	< 0.35 UJ	0.017 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J14	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.015 UJ	--	--	--	--	--
MC1-J15	FD	5/28/2008	TO-15	< 0.4 U	< 0.12 U	< 0.23 UJ	< 0.087 U	--	< 0.35 UJ	0.025 J	< 0.29 U	< 0.15 UJ	< 0.15 UJ
MC1-J15	FD	5/28/2008	TO-15 SIM	--	--	--	--	< 0.018 UJ	--	--	--	--	--
MC1-J15	N	5/28/2008	TO-15	< 0.41 U	0.03 J	0.085 J	< 0.088 U	--	< 0.36 UJ	0.022 J	< 0.3 U	< 0.15 UJ	0.018 J
MC1-J15	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J16	N	5/28/2008	TO-15	< 0.4 U	0.022 J	< 0.23 UJ	< 0.087 U	--	< 0.35 UJ	0.068 J	< 0.29 U	0.027 J	< 0.15 UJ
MC1-J16	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.013 UJ	--	--	--	--	--
MC1-J17	N	5/27/2008	TO-15	< 0.4 U	< 0.12 U	< 0.23 UJ	< 0.088 U	--	< 0.36 UJ	0.019 J	< 0.29 U	0.062 J	< 0.15 UJ
MC1-J17	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J18	N	5/28/2008	TO-15	< 0.39 U	0.019 J	< 0.22 UJ	< 0.086 U	--	< 0.35 UJ	0.032 J	< 0.29 U	< 0.15 UJ	< 0.14 UJ

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 12 of 14)

				Surface Flux									
Sample ID	**Sample Type**	**Sample Date**	**Analytical Method**	Methyl iodide	Methyl isobutyl ketone	Methyl n-butyl ketone	MTBE (Methyl tert-butyl ether)	Naphthalene	n-Butyl benzene	n-Heptane	n-Propyl benzene	o-Xylene	Styrene (monomer)
MC1-J18	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.013 UJ	--	--	--	--	--
MC1-J19	N	5/28/2008	TO-15	< 0.39 U	0.027 J	0.033 J	< 0.086 U	--	< 0.35 UJ	0.025 J	< 0.29 U	< 0.15 UJ	< 0.14 UJ
MC1-J19	N	5/28/2008	TO-15 SIM	--	--	--	--	< 0.014 UJ	--	--	--	--	--
MC1-J20	N	5/27/2008	TO-15	0.17 J	< 0.12 U	0.013 J	< 0.087 U	--	< 0.35 UJ	0.014 J	< 0.29 U	0.018 J	< 0.15 UJ
MC1-J20	N	5/27/2008	TO-15 SIM	--	--	--	--	< 0.015 UJ	--	--	--	--	--

All units in $\mu g/m^2, min^{-1}$.
-- = no sample data.

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Sample ID	Sample Type	Sample Date	Analytical Method	Surface Flux								
				tert-Butyl benzene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	trans-1,3-Dichloropropylene	Tribromomethane	Trichloroethylene	Vinyl acetate	Vinyl chloride
MC1-BA36	N	5/28/2008	TO-15	< 0.35 UJ	< 0.24 U	0.013 J	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	0.014 J	< 0.089 U
MC1-BA36	N	5/28/2008	TO-15 SIM	--	0.0047 J	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J01	N	5/28/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	< 0.19 UJ	< 0.087 U
MC1-J01	N	5/28/2008	TO-15 SIM	--	< 0.0031 U	--	--	--	--	< 0.0025 U	--	< 0.0012 U
MC1-J02	FD	5/28/2008	TO-15	< 0.34 UJ	< 0.23 U	0.013 J	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	0.015 J	< 0.087 U
MC1-J02	FD	5/28/2008	TO-15 SIM	--	< 0.0037 U	--	--	--	--	< 0.0029 U	--	< 0.0014 U
MC1-J02	N	5/28/2008	TO-15	< 0.35 UJ	< 0.23 U	0.02 J	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	< 0.19 UJ	< 0.087 U
MC1-J02	N	5/28/2008	TO-15 SIM	--	< 0.0039 U	--	--	--	--	< 0.0031 U	--	< 0.0015 U
MC1-J04	N	5/28/2008	TO-15	< 0.35 UJ	< 0.23 U	0.02 J	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	< 0.19 UJ	< 0.087 U
MC1-J04	N	5/28/2008	TO-15 SIM	--	0.0021 J	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J05	N	5/28/2008	TO-15	< 0.35 UJ	< 0.23 U	0.013 J	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	0.034 J	< 0.088 U
MC1-J05	N	5/28/2008	TO-15 SIM	--	< 0.0034 U	--	--	--	--	0.013 J	--	< 0.0013 U
MC1-J07	N	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	< 0.19 UJ	< 0.087 U
MC1-J07	N	5/27/2008	TO-15 SIM	--	0.0018 J	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J08	N	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 UJ	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	< 0.19 UJ	< 0.088 U
MC1-J08	N	5/27/2008	TO-15 SIM	--	0.0018 J	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J09	N	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	< 0.19 UJ	< 0.088 U
MC1-J09	N	5/27/2008	TO-15 SIM	--	0.0023 J	--	--	--	--	< 0.0029 U	--	< 0.0014 U
MC1-J10	FD	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	< 0.19 UJ	< 0.088 U
MC1-J10	FD	5/27/2008	TO-15 SIM	--	< 0.0034 U	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J10	N	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	< 0.19 UJ	< 0.088 U
MC1-J10	N	5/27/2008	TO-15 SIM	--	0.0023 J	--	--	--	--	< 0.0029 U	--	< 0.0014 U
MC1-J11	N	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	< 0.19 UJ	< 0.088 U
MC1-J11	N	5/27/2008	TO-15 SIM	--	0.0021 J	--	--	--	--	0.0031 J	--	< 0.0013 U
MC1-J12	N	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	0.017 J	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	0.014 J	< 0.088 U
MC1-J12	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	--	--	--	--	< 0.0027 UJ	--	0.00069 J
MC1-J13	N	5/27/2008	TO-15	< 0.36 UJ	< 0.24 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.63 U	< 0.19 U	0.014 J	< 0.09 U
MC1-J13	N	5/27/2008	TO-15 SIM	--	< 0.0034 UJ	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J14	N	5/28/2008	TO-15	< 0.35 UJ	< 0.23 U	0.022 J	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	< 0.19 UJ	< 0.087 U
MC1-J14	N	5/28/2008	TO-15 SIM	--	0.0031 J	--	--	--	--	< 0.0029 U	--	< 0.0014 U
MC1-J15	FD	5/28/2008	TO-15	< 0.34 UJ	< 0.23 U	0.022 J	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	0.02 J	< 0.087 U
MC1-J15	FD	5/28/2008	TO-15 SIM	--	< 0.0044 UJ	--	--	--	--	< 0.0035 UJ	--	< 0.0017 UJ
MC1-J15	N	5/28/2008	TO-15	< 0.35 UJ	< 0.24 U	0.02 J	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	< 0.19 UJ	< 0.089 U
MC1-J15	N	5/28/2008	TO-15 SIM	--	< 0.0034 U	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J16	N	5/28/2008	TO-15	< 0.35 UJ	< 0.23 U	0.029 J	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	< 0.19 UJ	< 0.087 U
MC1-J16	N	5/28/2008	TO-15 SIM	--	0.0042 J	--	--	--	--	< 0.0025 U	--	< 0.0012 U
MC1-J17	N	5/27/2008	TO-15	< 0.35 UJ	< 0.23 U	< 0.13 U	< 0.11 U	< 0.16 U	< 0.62 U	< 0.19 U	< 0.19 UJ	< 0.088 U
MC1-J17	N	5/27/2008	TO-15 SIM	--	0.011 J	--	--	--	--	0.0025 J	--	< 0.0013 U
MC1-J18	N	5/28/2008	TO-15	< 0.34 UJ	< 0.23 U	0.088 J	< 0.11 U	< 0.15 U	< 0.6 U	< 0.18 U	< 0.19 UJ	< 0.085 U

TABLE B-12
SURFACE FLUX DATA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 14 of 14)

				Surface Flux								
Sample ID	**Sample Type**	**Sample Date**	**Analytical Method**	tert-Butyl benzene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	trans-1,3-Dichloropropylene	Tribromomethane	Trichloroethylene	Vinyl acetate	Vinyl chloride
MC1-J18	N	5/28/2008	TO-15 SIM	--	0.0034 J	--	--	--	--	< 0.0025 U	--	< 0.0012 U
MC1-J19	N	5/28/2008	TO-15	< 0.34 UJ	< 0.23 U	0.014 J	< 0.11 U	< 0.15 U	< 0.6 U	< 0.18 U	< 0.19 UJ	< 0.085 U
MC1-J19	N	5/28/2008	TO-15 SIM	--	< 0.0034 U	--	--	--	--	< 0.0027 U	--	< 0.0013 U
MC1-J20	N	5/27/2008	TO-15	< 0.34 UJ	< 0.23 U	0.014 J	< 0.11 U	< 0.16 U	< 0.61 U	< 0.18 U	< 0.19 UJ	< 0.087 U
MC1-J20	N	5/27/2008	TO-15 SIM	--	< 0.0037 U	--	--	--	--	< 0.0029 U	--	< 0.0014 U

All units in $\mu g/m^2,min^{-1}$.
-- = no sample data.

APPENDIX C

GES FIELD REPORTS
(on the report CD in Appendix B)

APPENDIX D

SURFACE FLUX CHAMBER TESTING INVESTIGATOR'S REPORT

(on the report CD in Appendix B)

APPENDIX E

DATA USABILITY TABLES
(on the report CD in Appendix B)

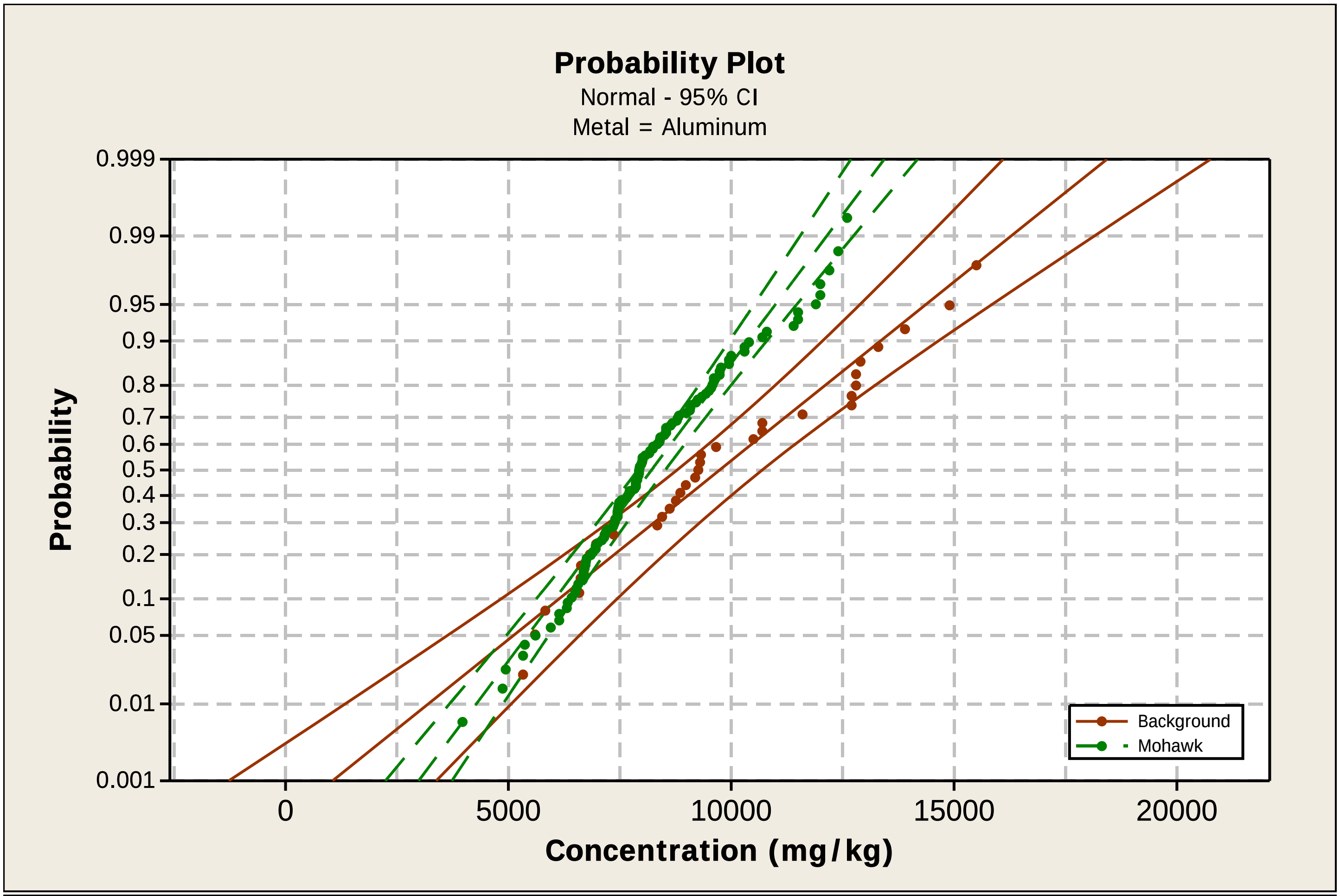
LIST OF TABLES (APPENDIX E)

APPENDIX F

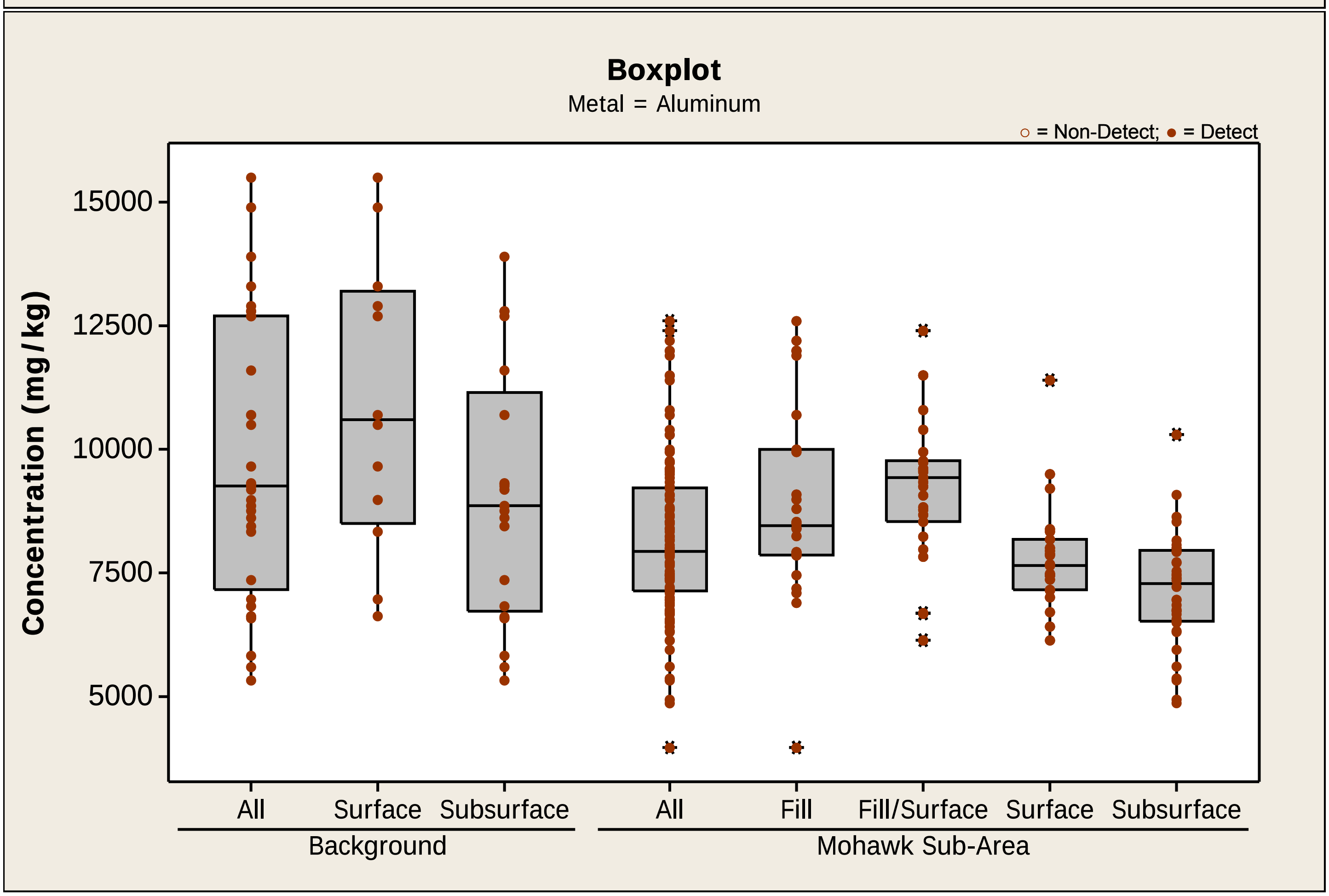
DATA VALIDATION SUMMARY REPORTS
(on the report CD in Appendix B)

APPENDIX G

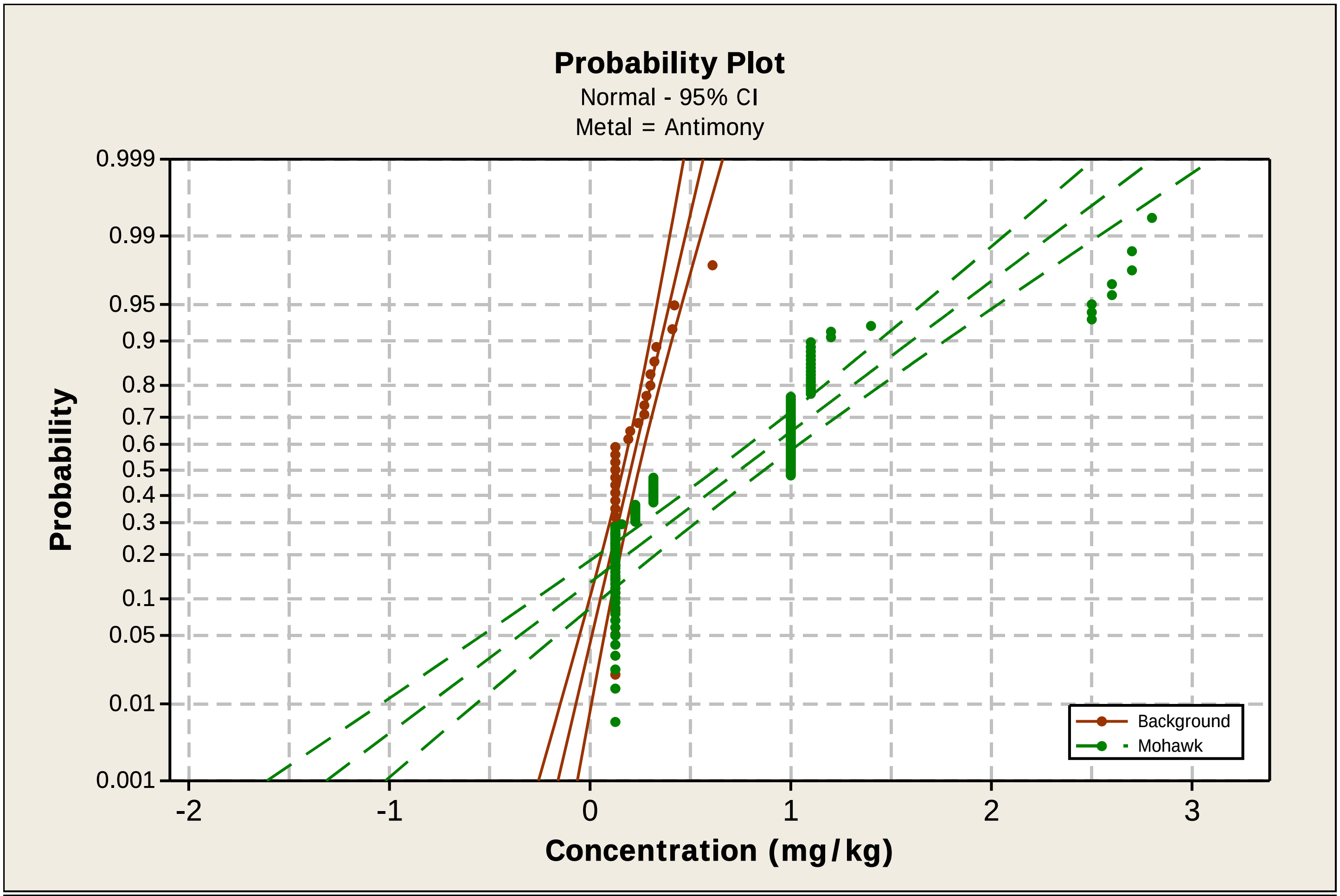
CUMULATIVE PROBABILITY PLOTS AND BOXPLOTS



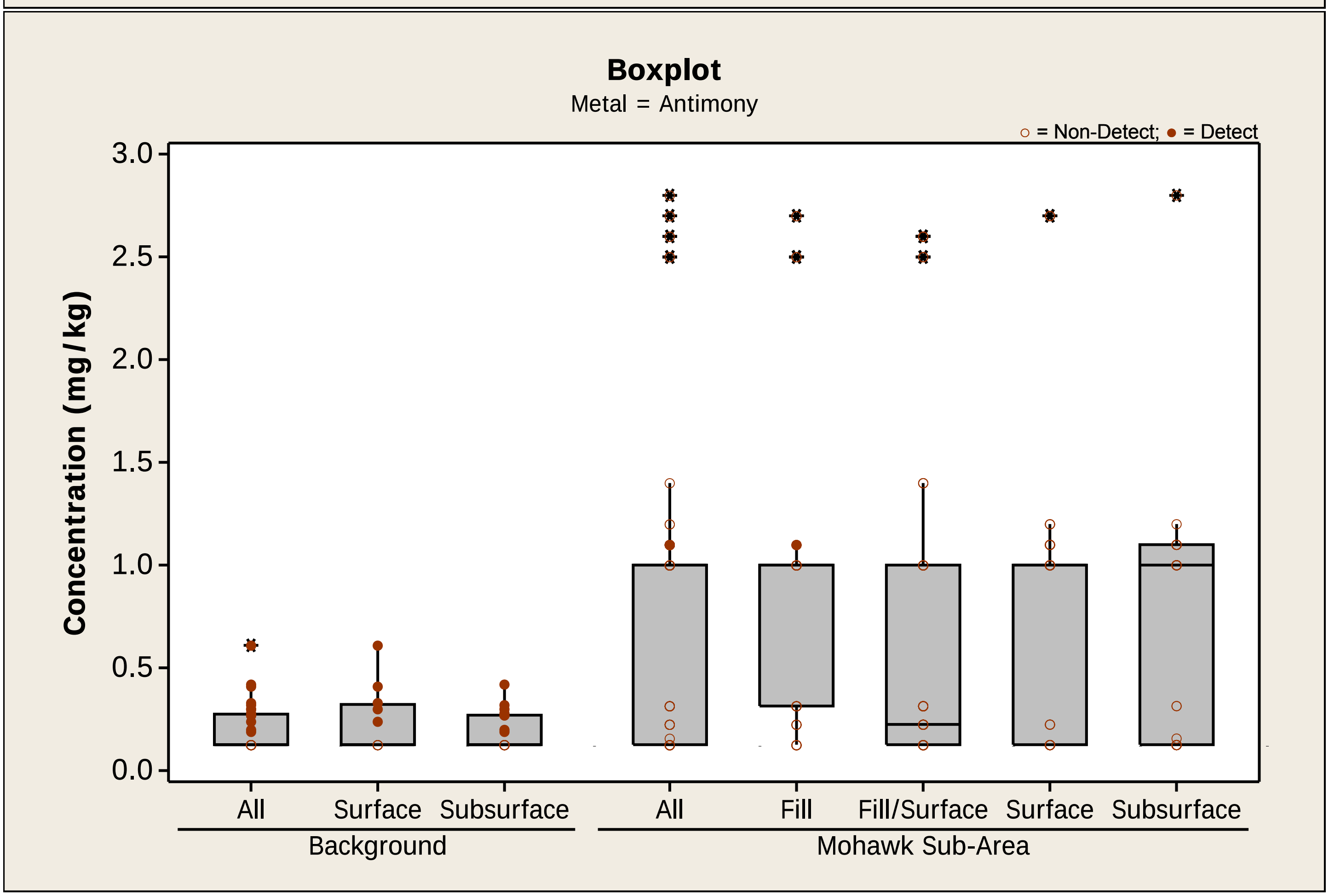
Probability Plot
Normal - 95% CI
Metal = Aluminum
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
5000
10000
15000
20000
Concentration (mg/kg)
Background
Mohawk



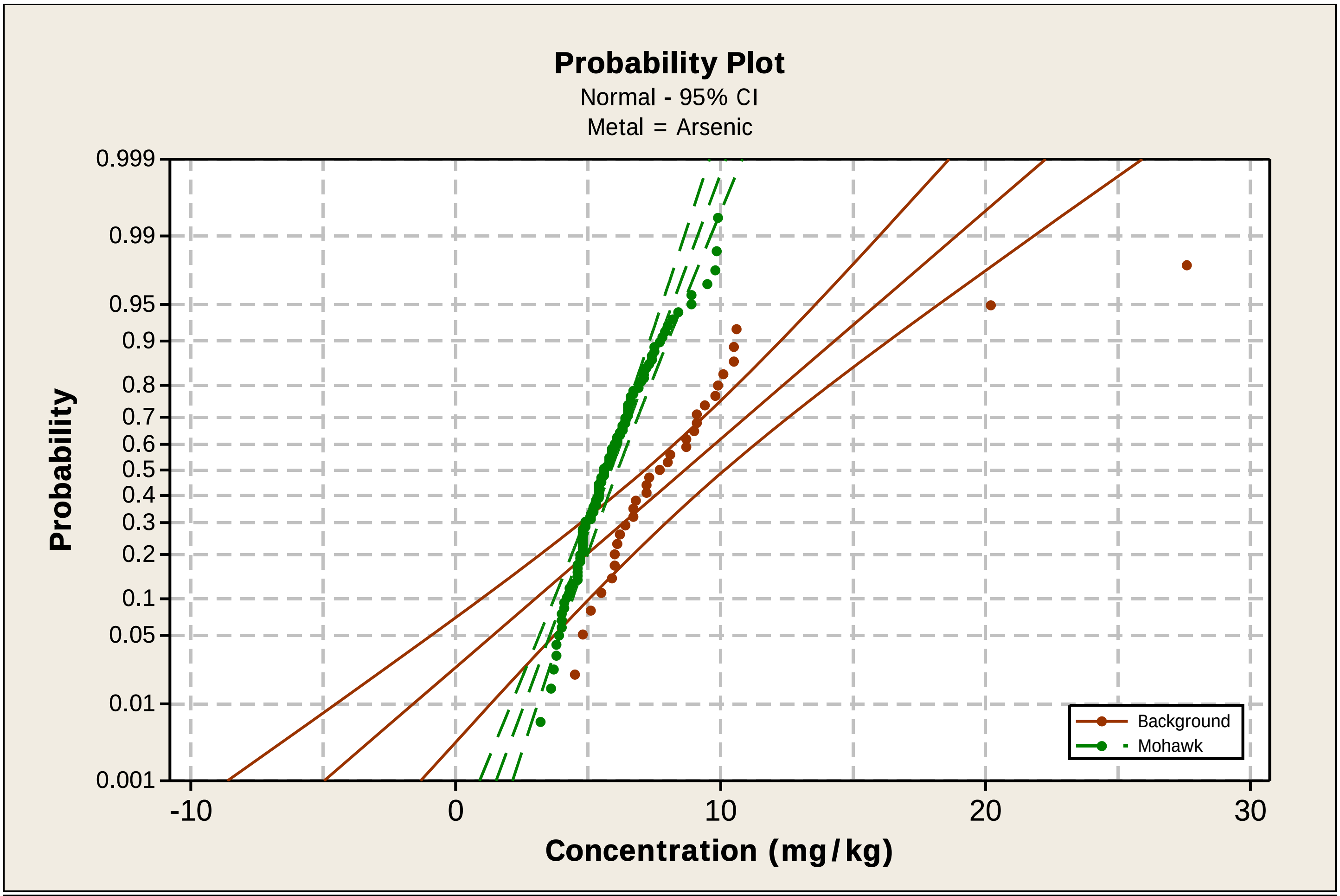
Boxplot
Metal = Aluminum
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
15000
12500
10000
7500
5000
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



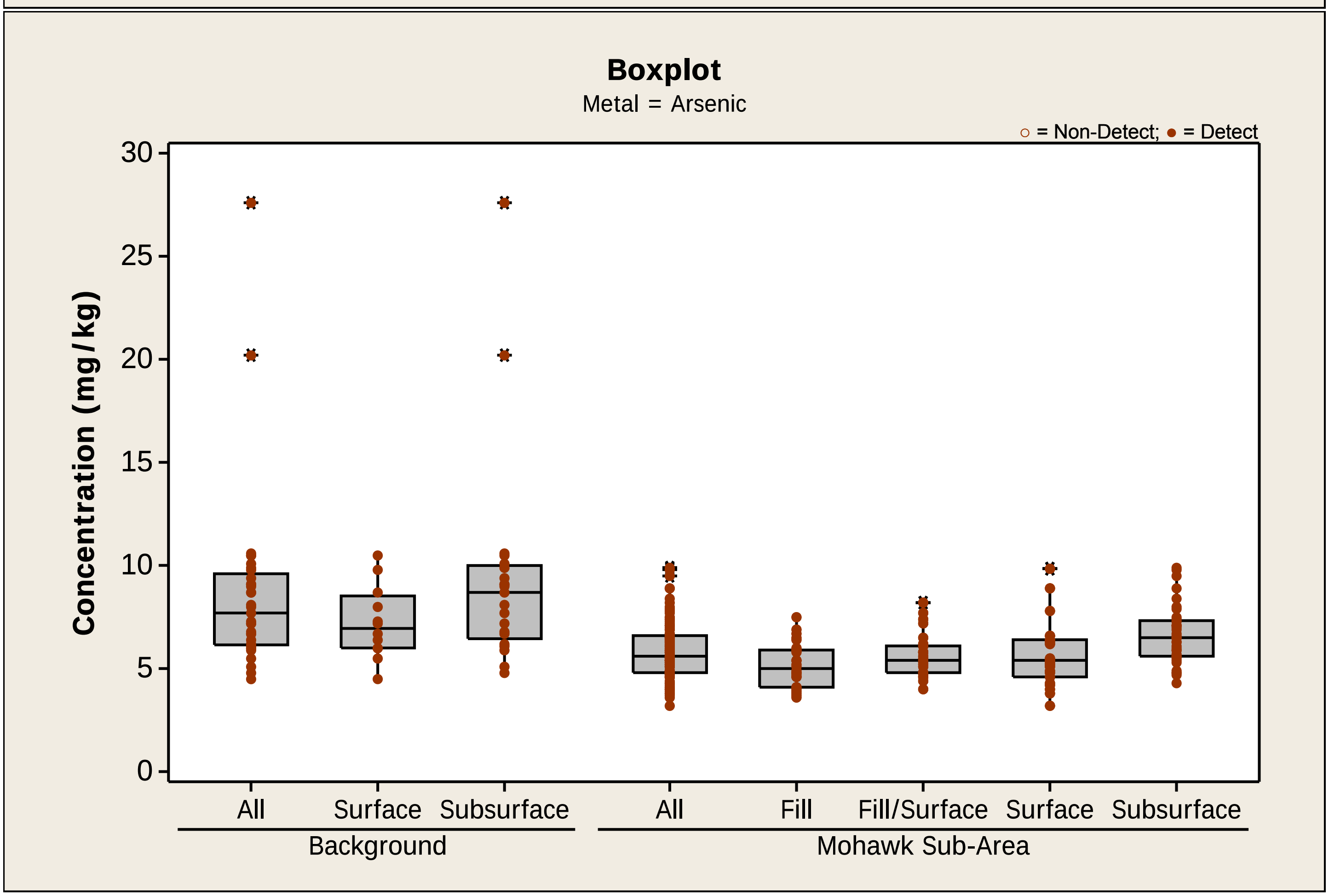
Probability Plot
Normal - 95% CI
Metal = Antimony
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-2
-1
0
1
2
3
Concentration (mg/kg)
Background
Mohawk



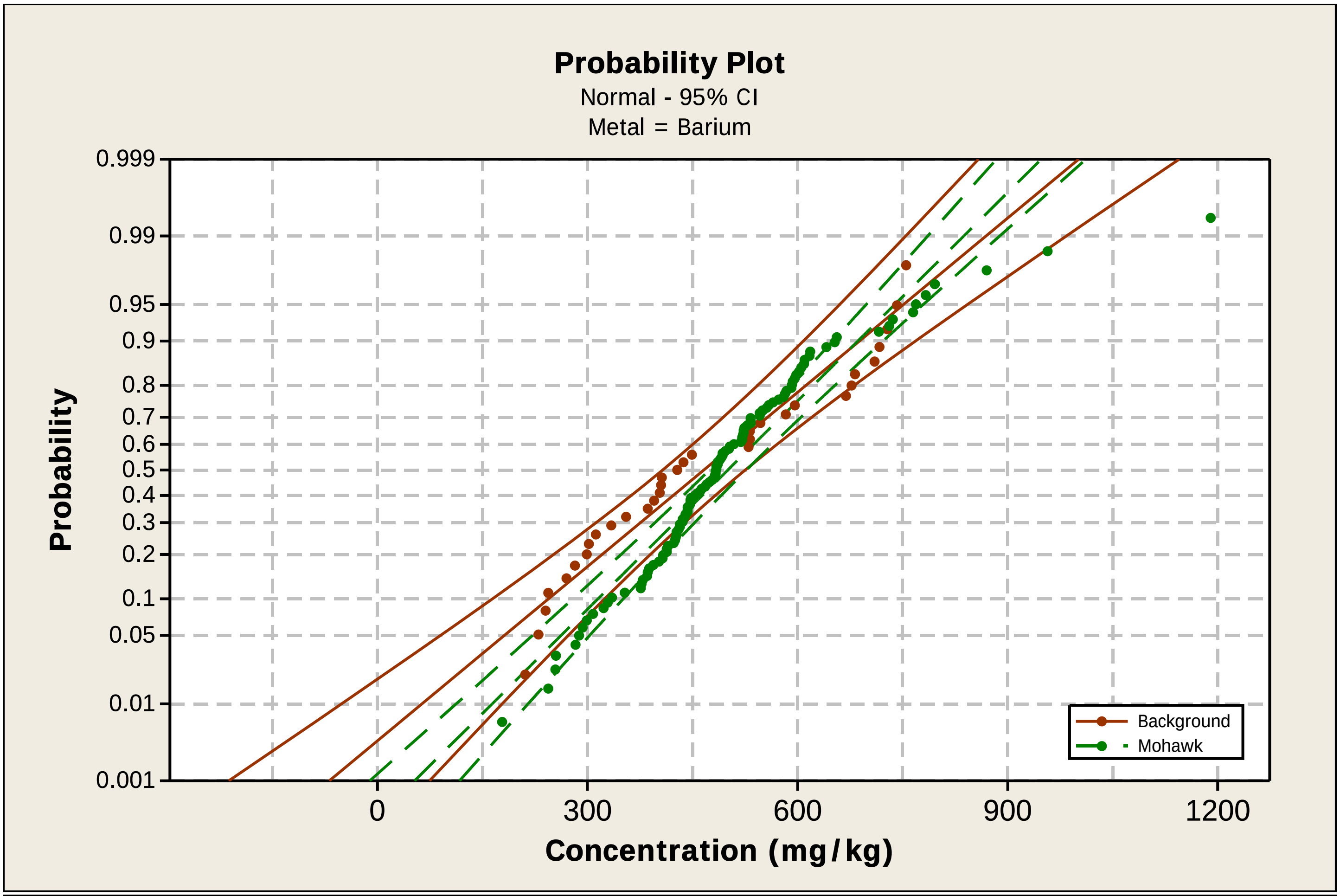
Boxplot
Metal = Antimony
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



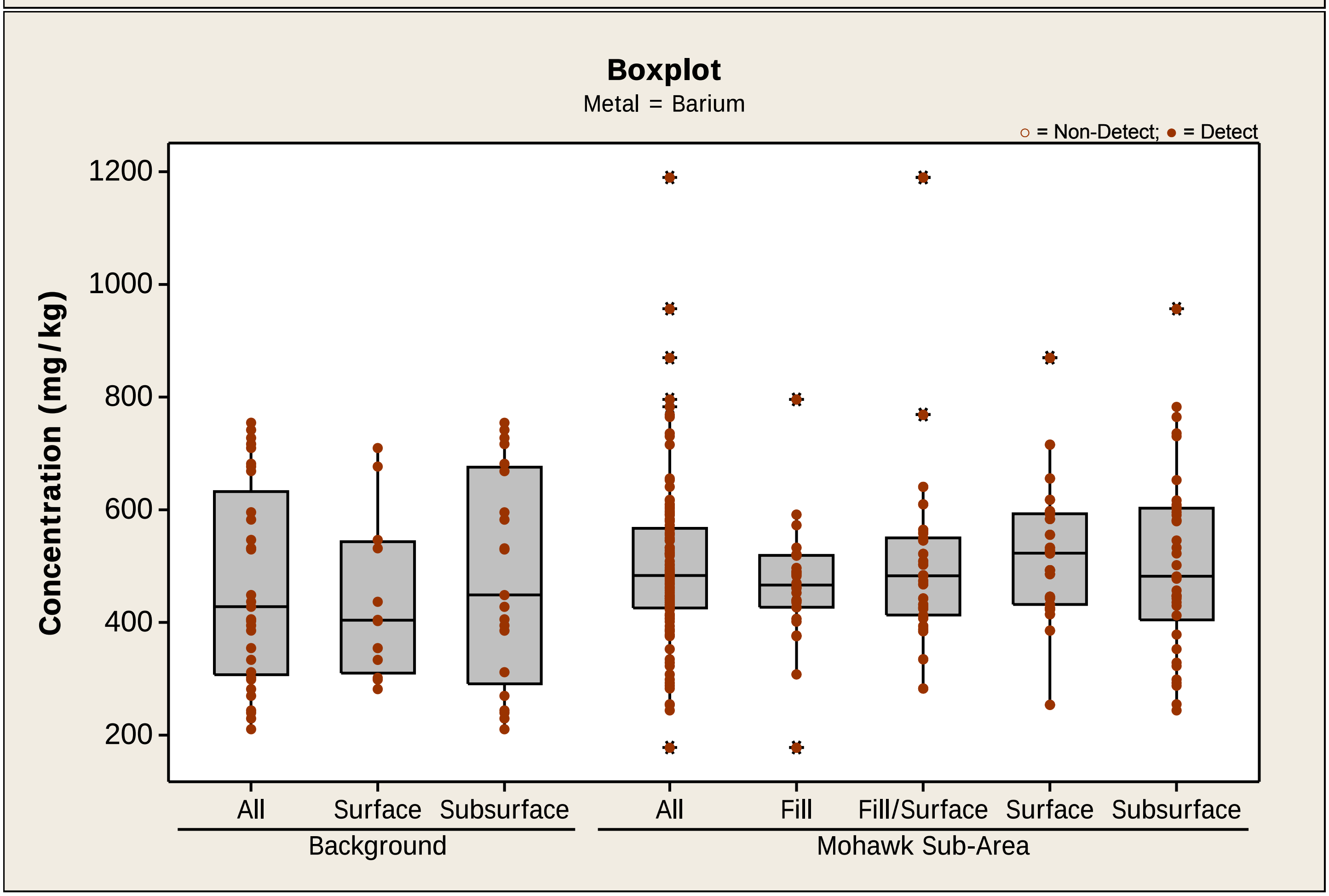
Probability Plot
Normal - 95% CI
Metal = Arsenic
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-10
0
10
20
30
Concentration (mg/kg)
Background
Mohawk



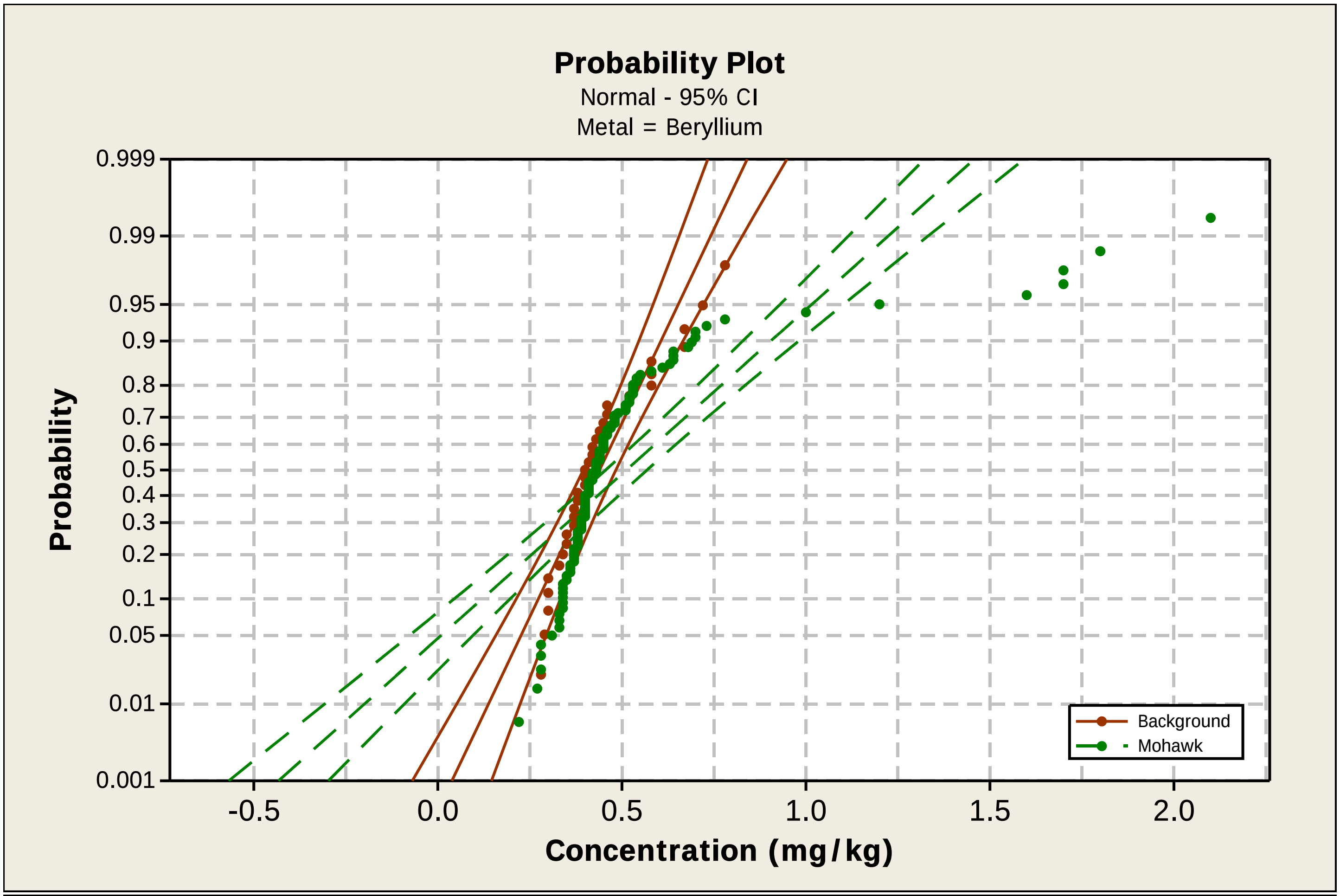
Boxplot
Metal = Arsenic
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
30
25
20
15
10
5
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

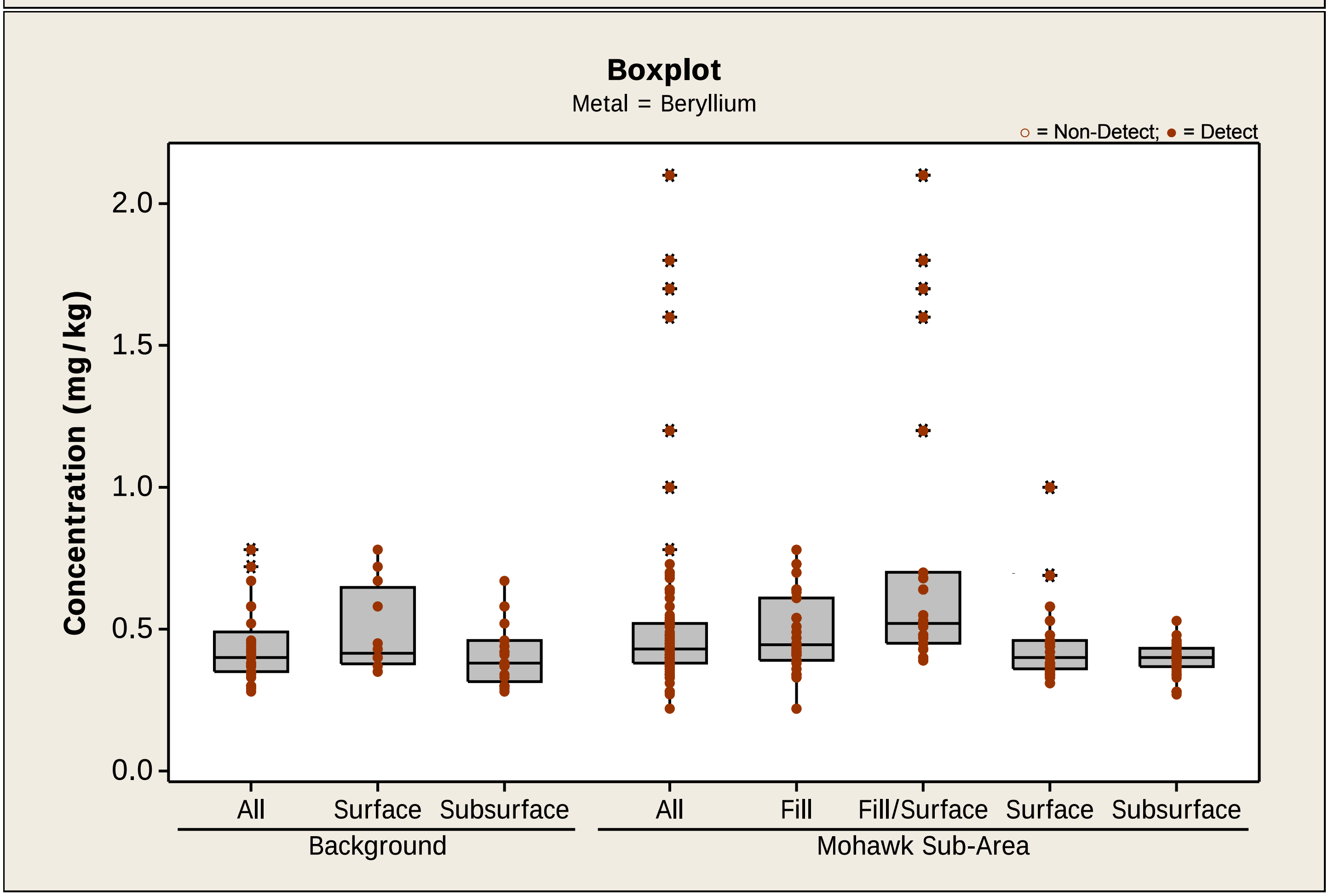


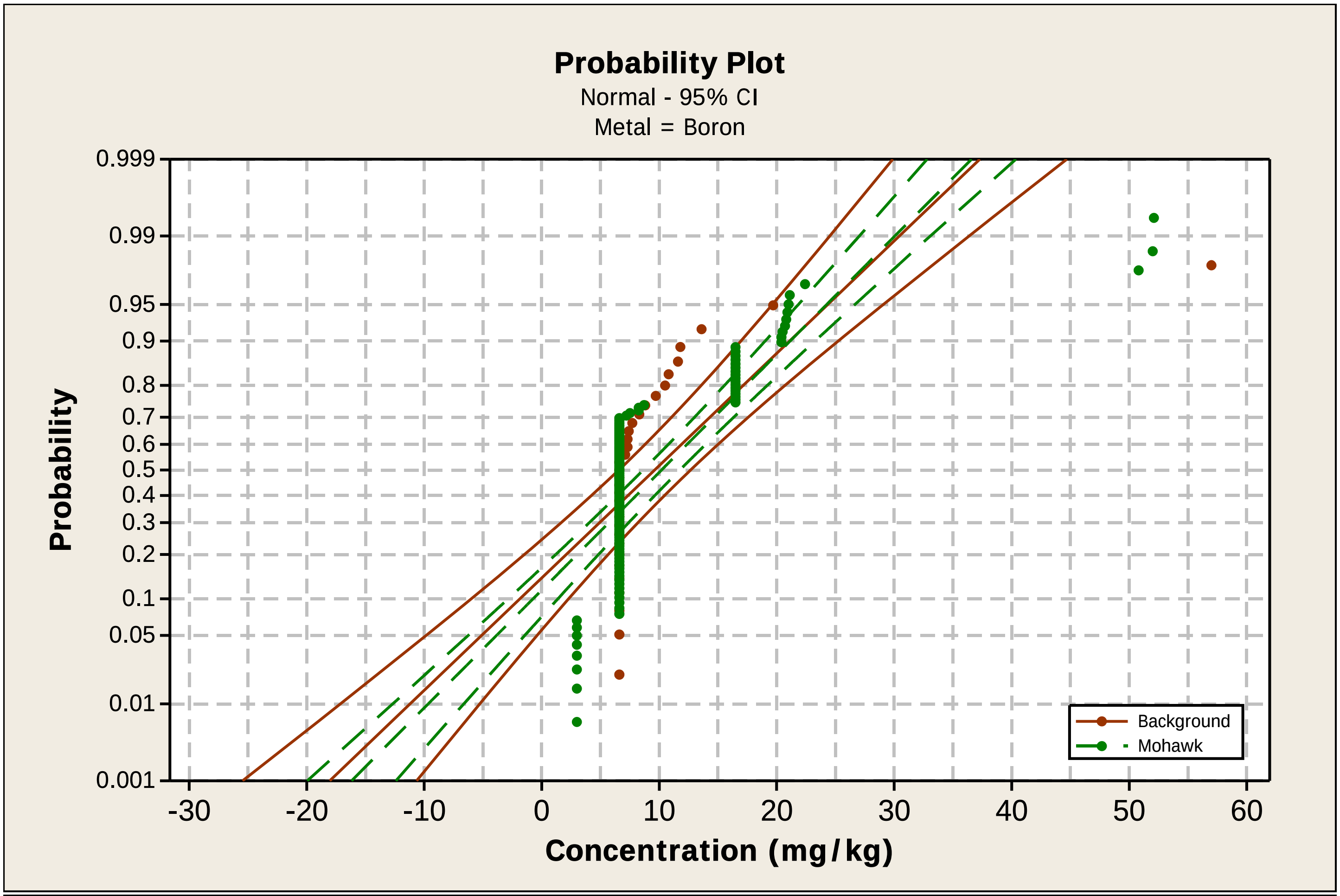
Probability Plot
Normal - 95% CI
Metal = Barium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
300
600
900
1200
Concentration (mg/kg)
Background
Mohawk

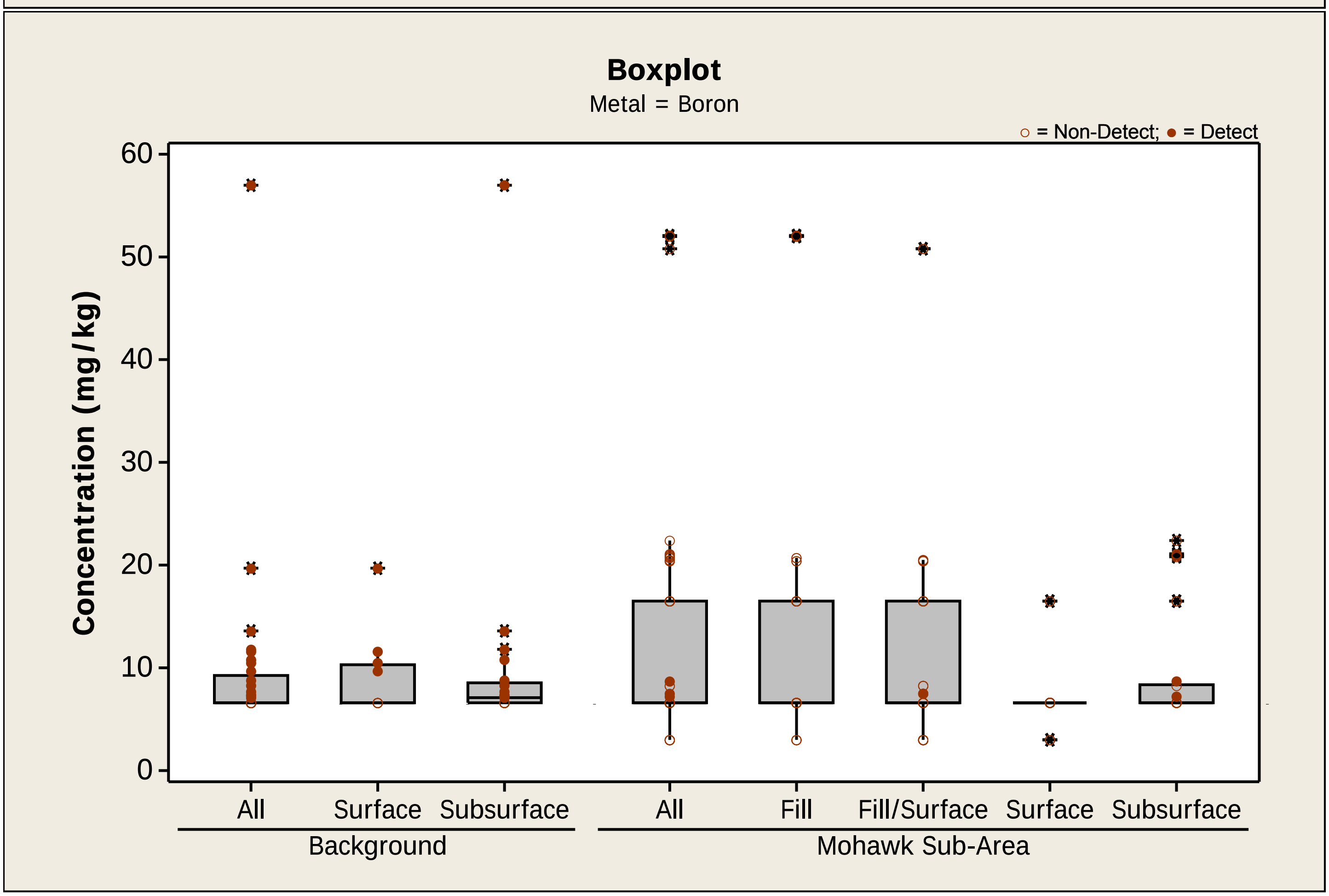


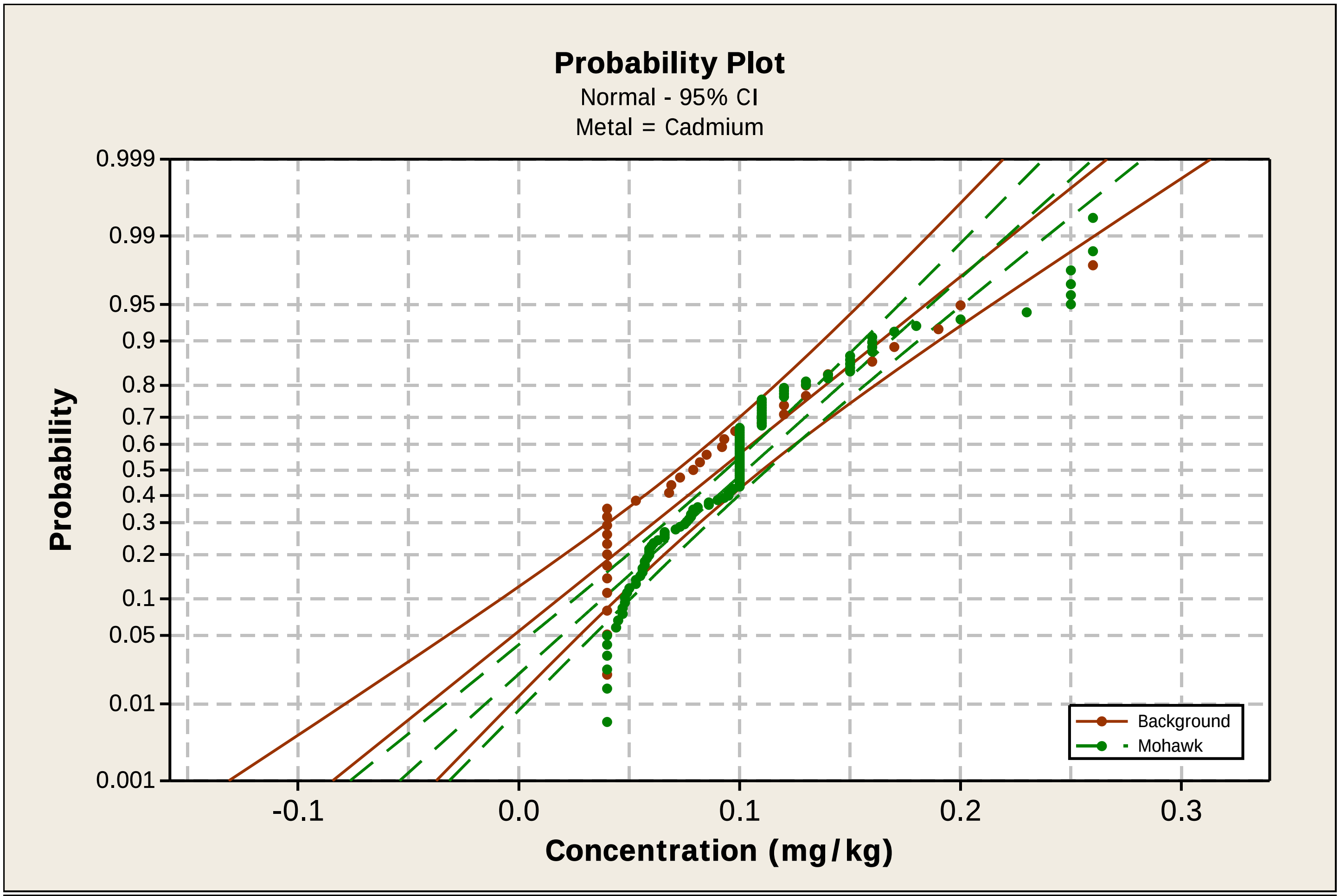
Boxplot
Metal = Barium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1200
1000
800
600
400
200
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

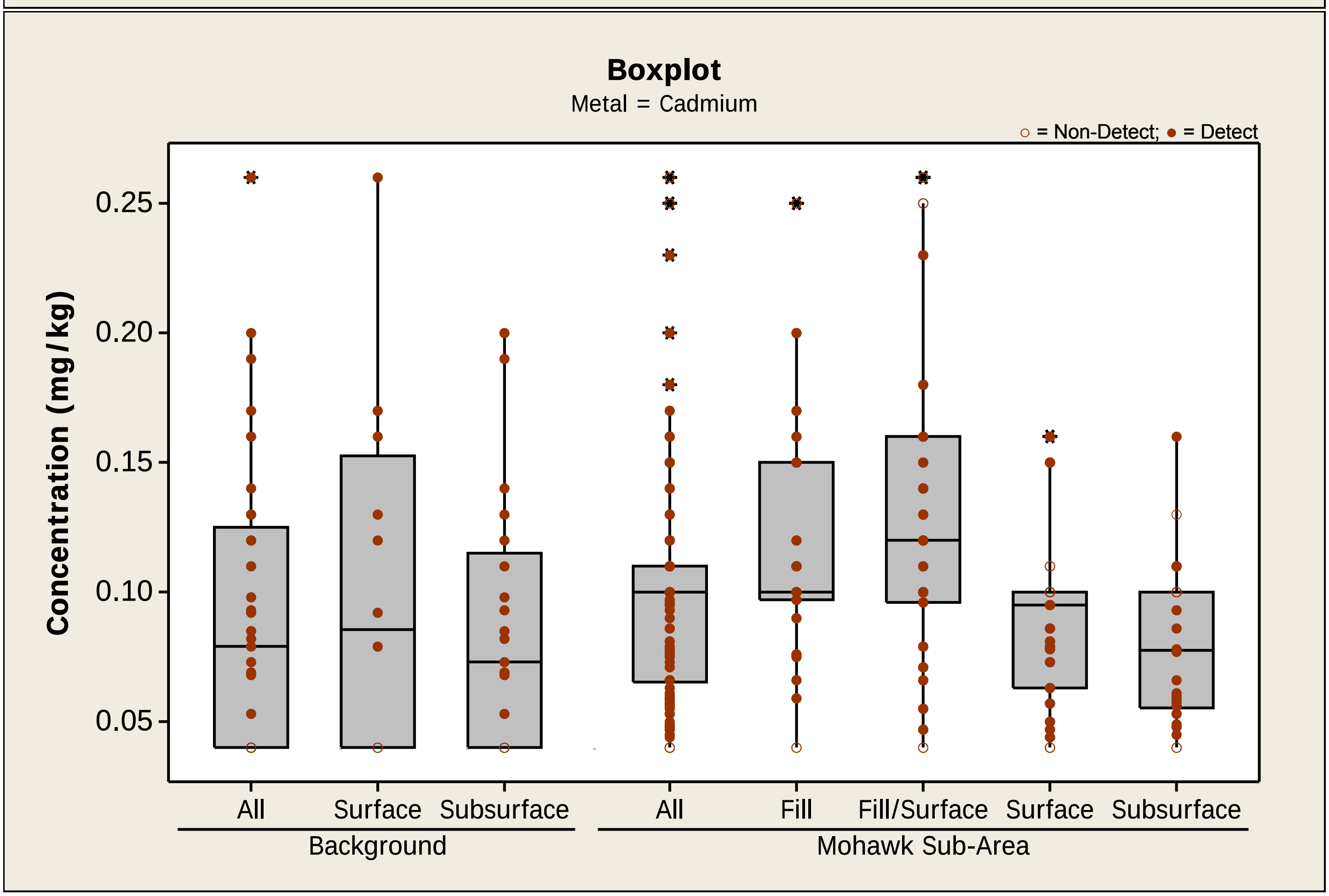

Probability Plot
Normal - 95% CI
Metal = Beryllium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-0.5
0.0
0.5
1.0
1.5
2.0
Concentration (mg/kg)
Background
Mohawk

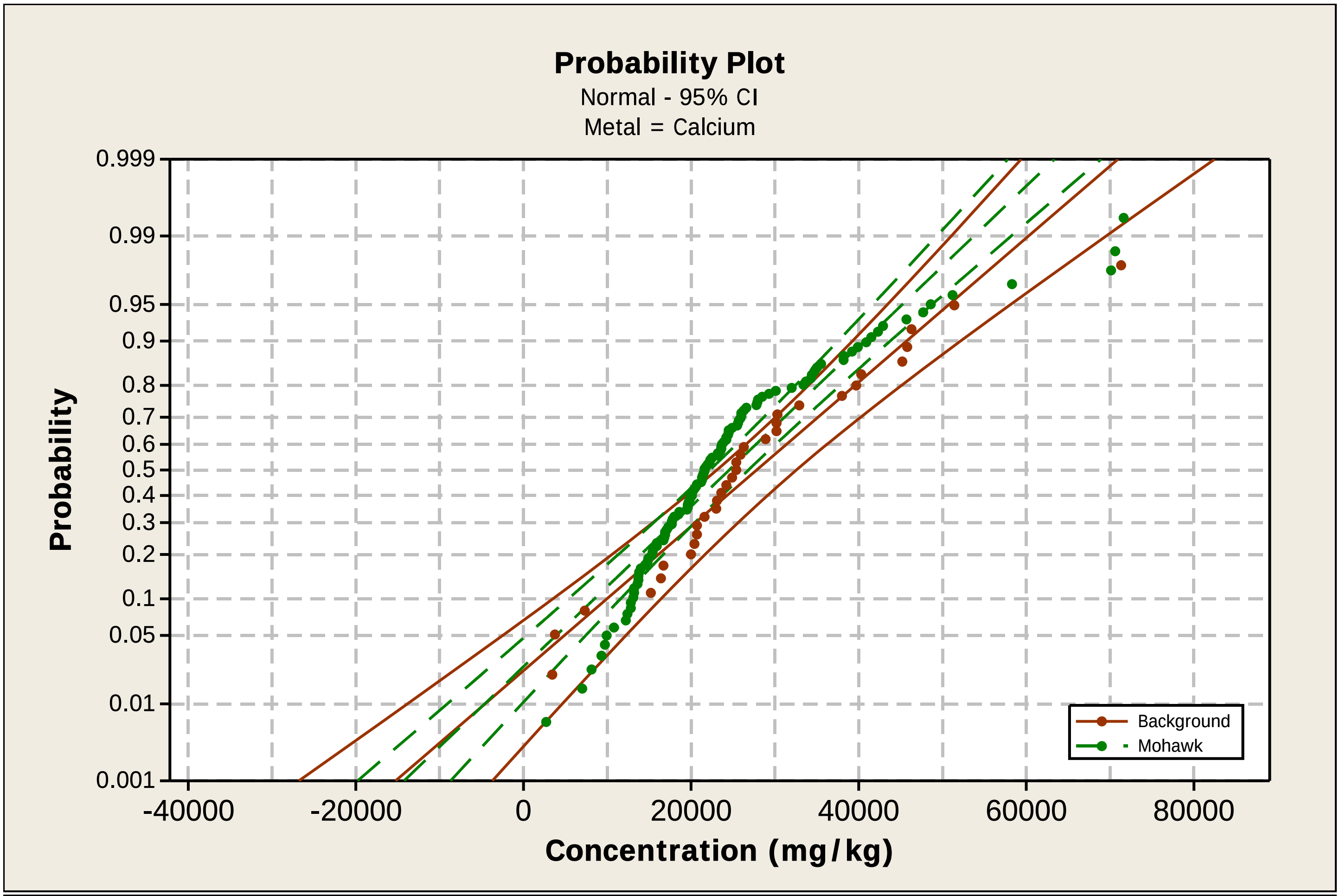

Boxplot
Metal = Beryllium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2.0
1.5
1.0
0.5
0.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

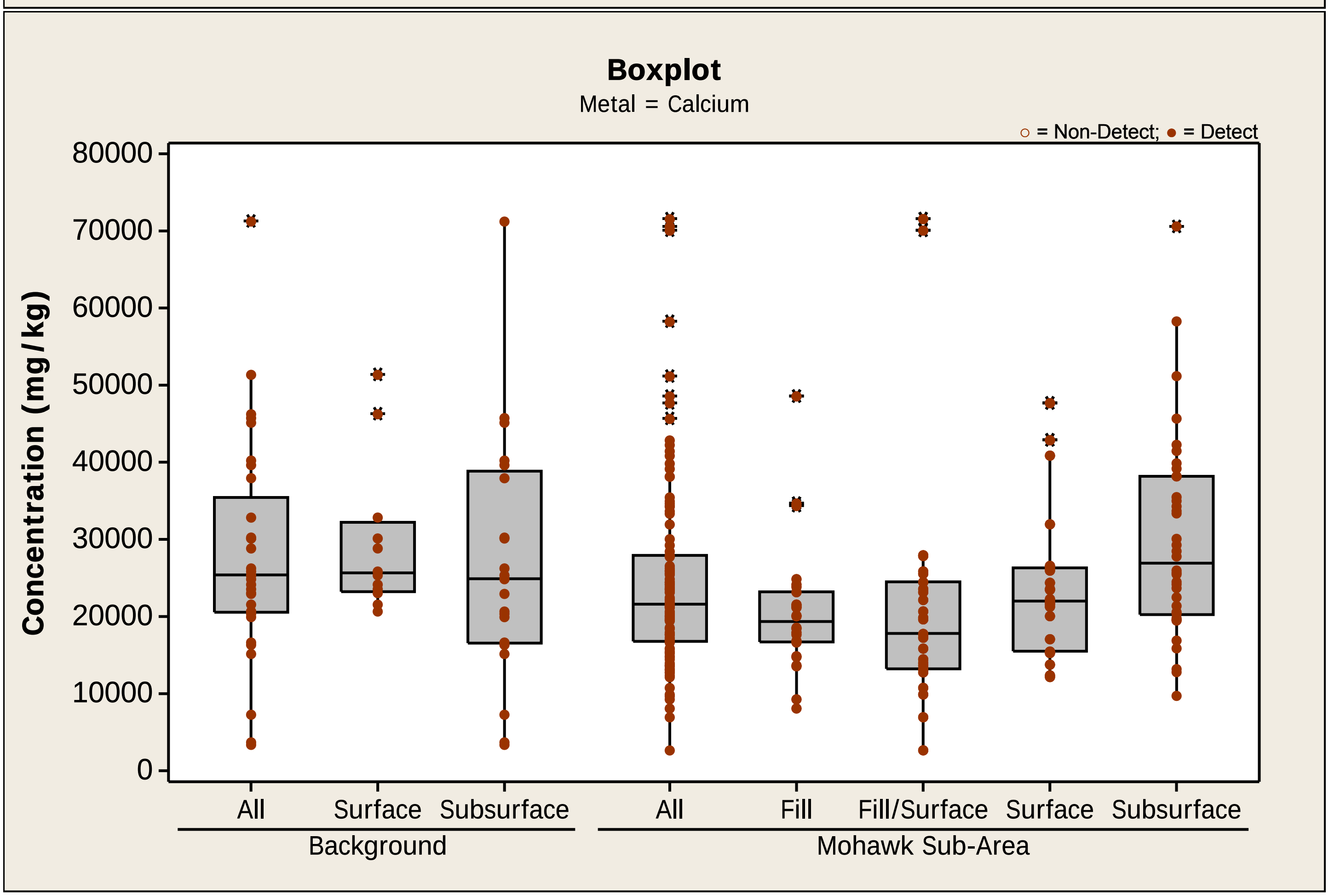

Probability Plot
Normal - 95% CI
Metal = Boron
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-30
-20
-10
0
10
20
30
40
50
60
Concentration (mg/kg)
Background
Mohawk

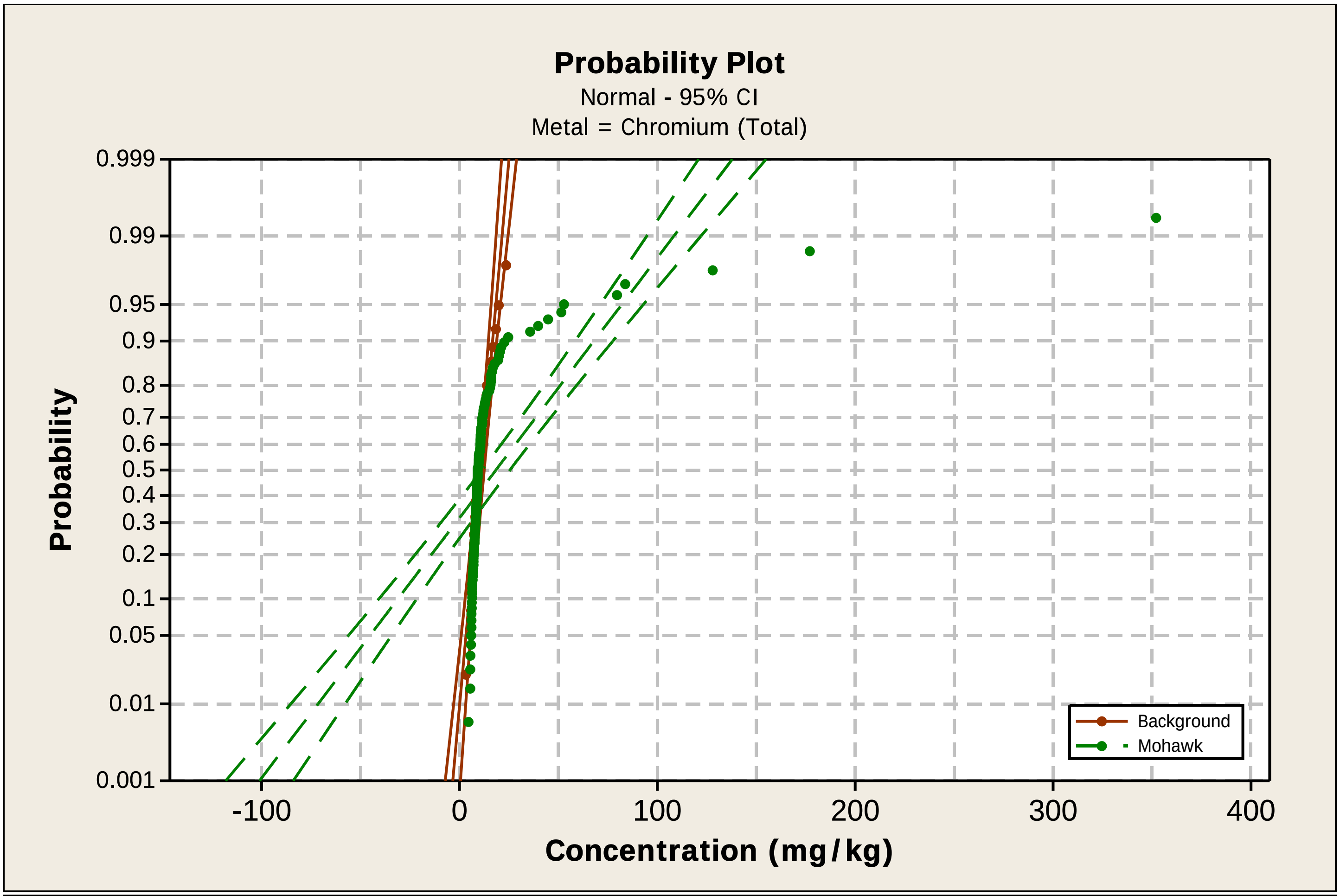

Boxplot
Metal = Boron
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
60
50
40
30
20
10
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

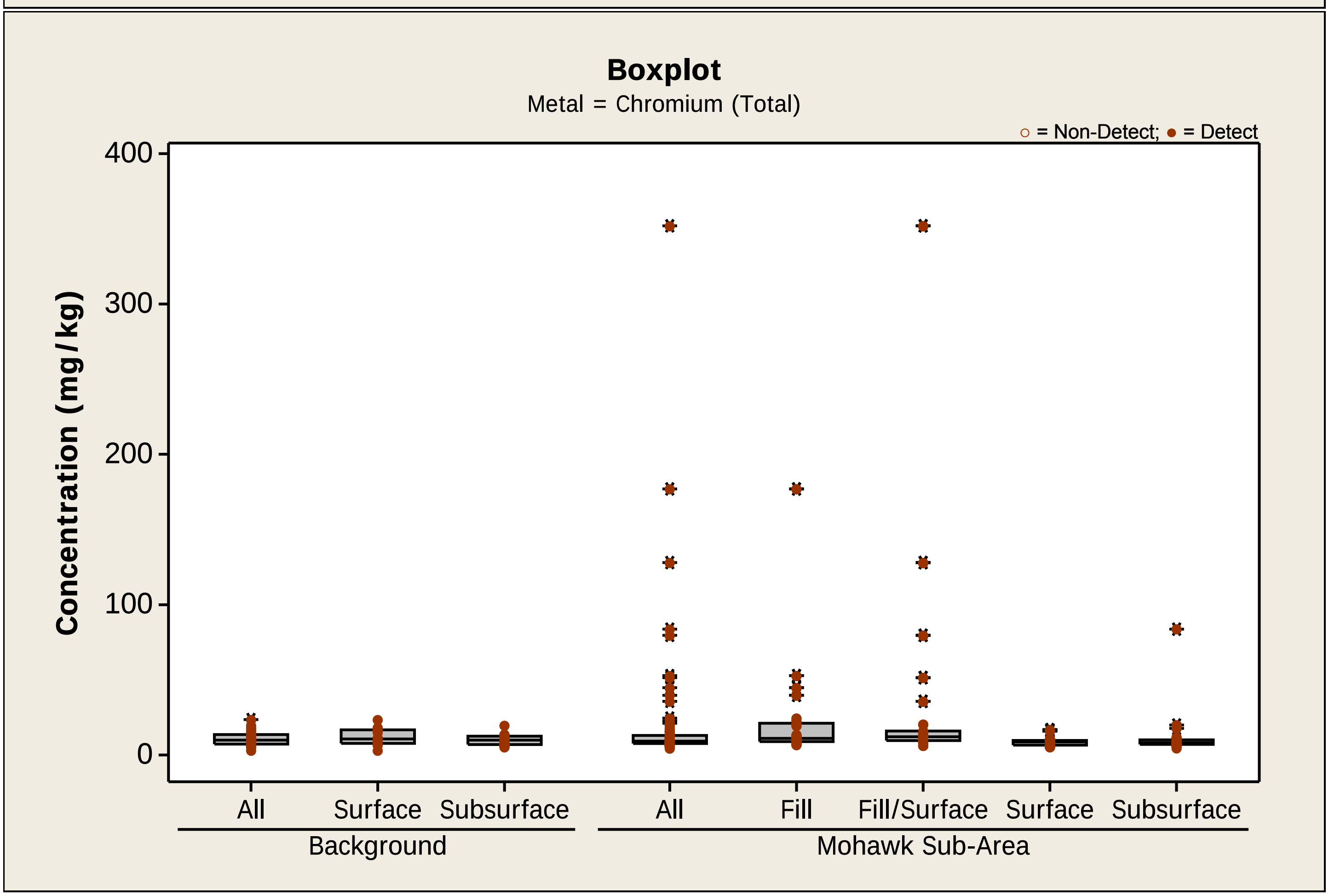

Probability Plot
Normal - 95% CI
Metal = Cadmium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-0.1
0.0
0.1
0.2
0.3
Concentration (mg/kg)
Background
Mohawk

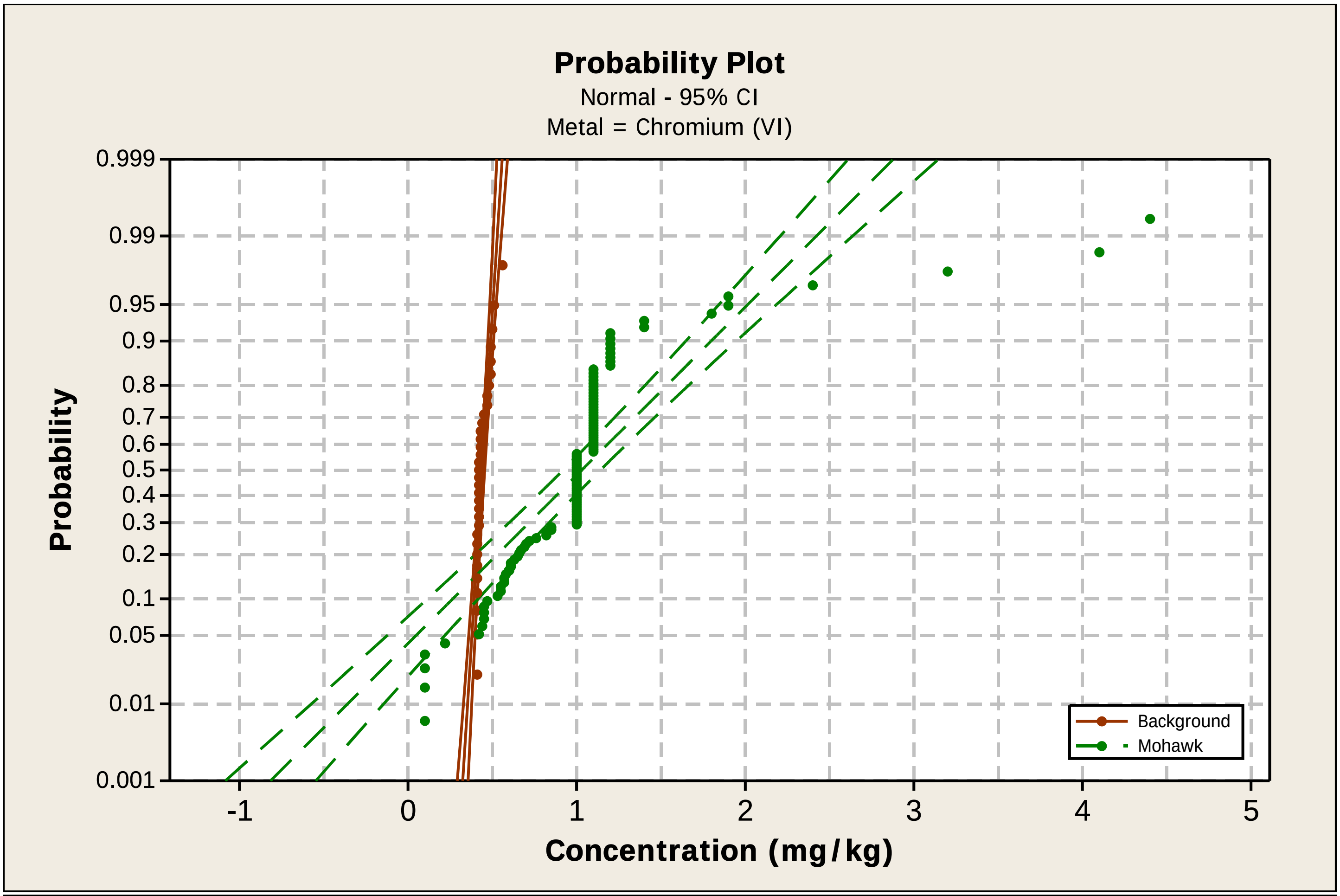

Boxplot
Metal = Cadmium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.25
0.20
0.15
0.10
0.05
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

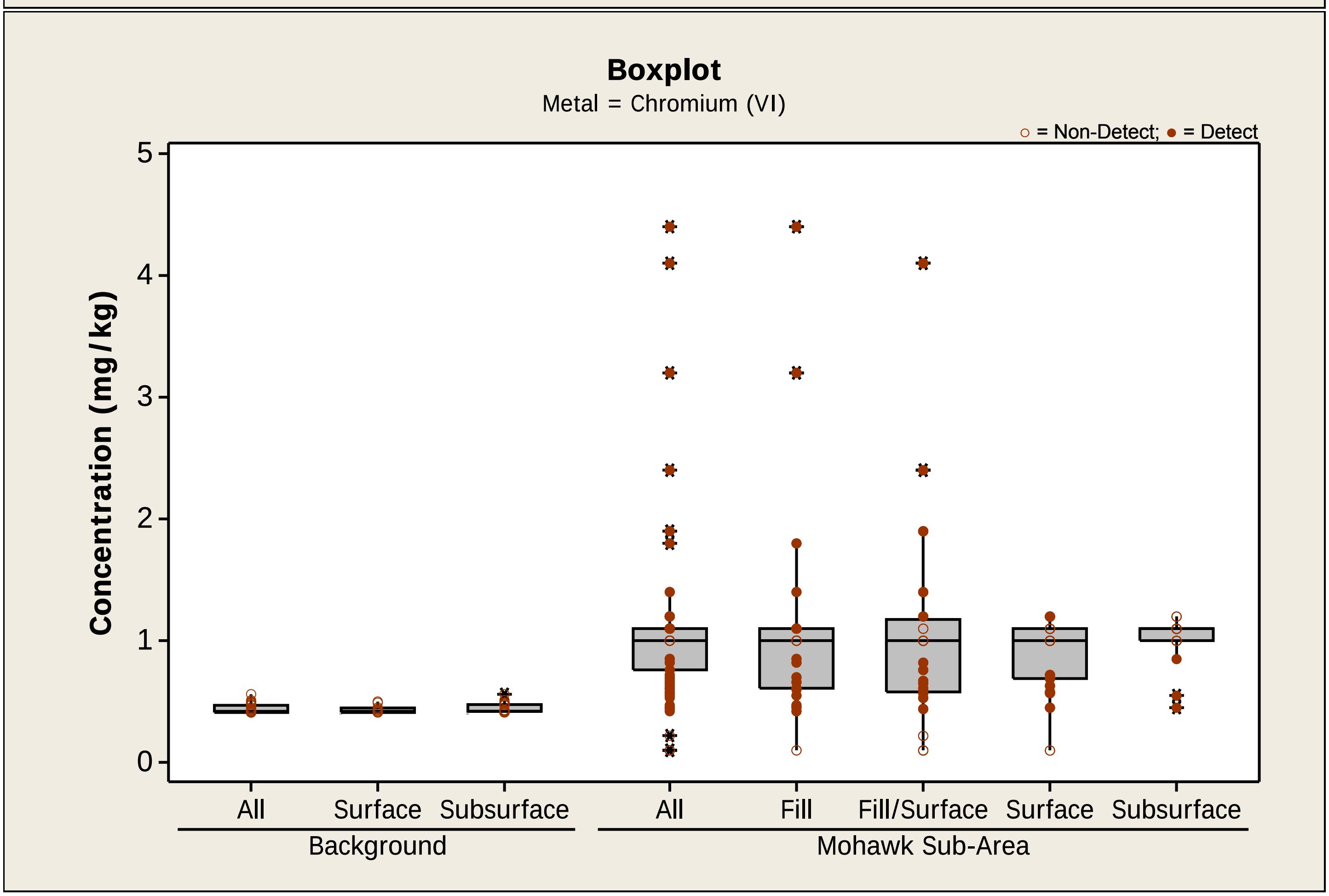

Probability Plot
Normal - 95% CI
Metal = Calcium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-40000
-20000
0
20000
40000
60000
80000
Concentration (mg/kg)
Background
Mohawk

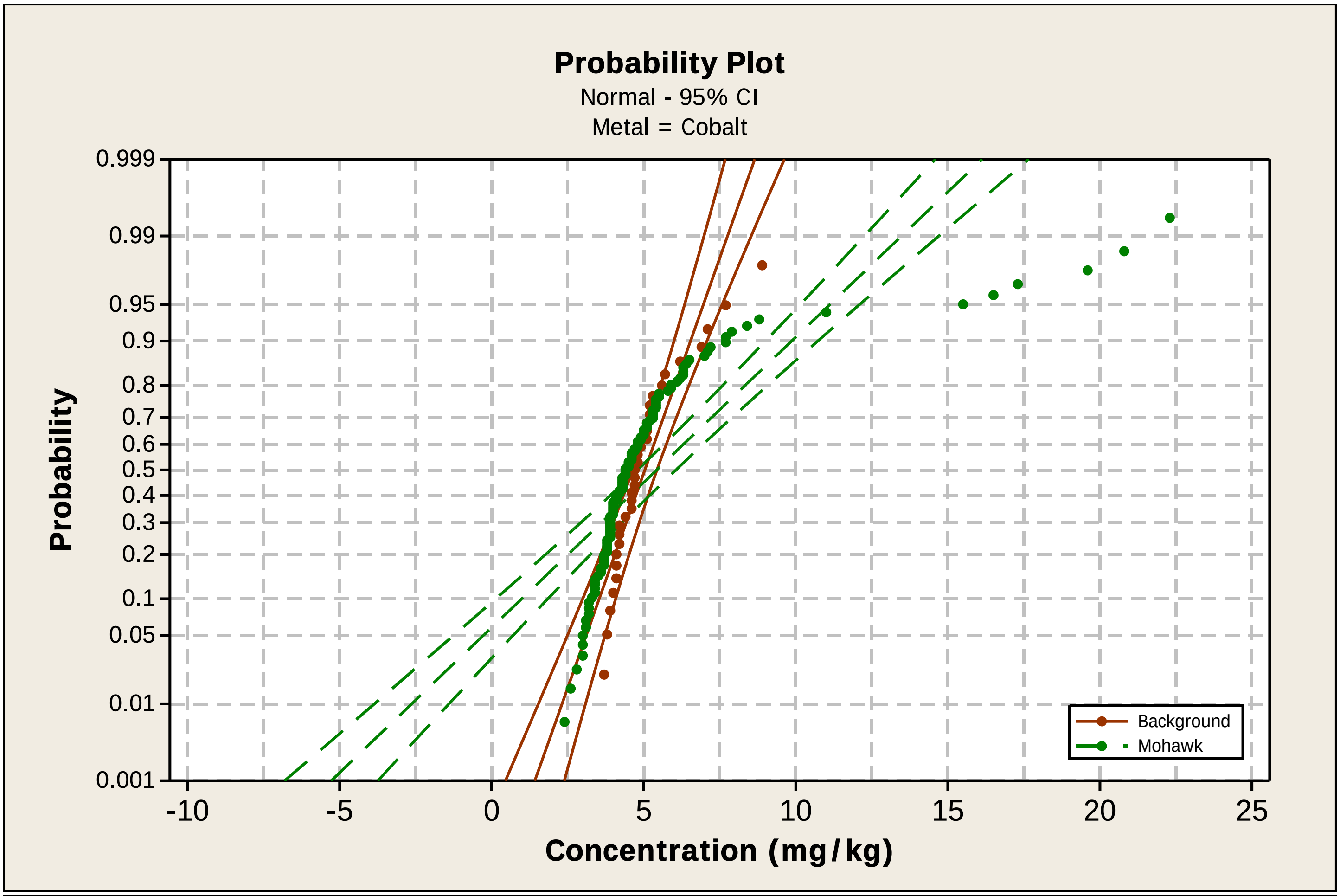

Boxplot
Metal = Calcium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
80000
70000
60000
50000
40000
30000
20000
10000
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

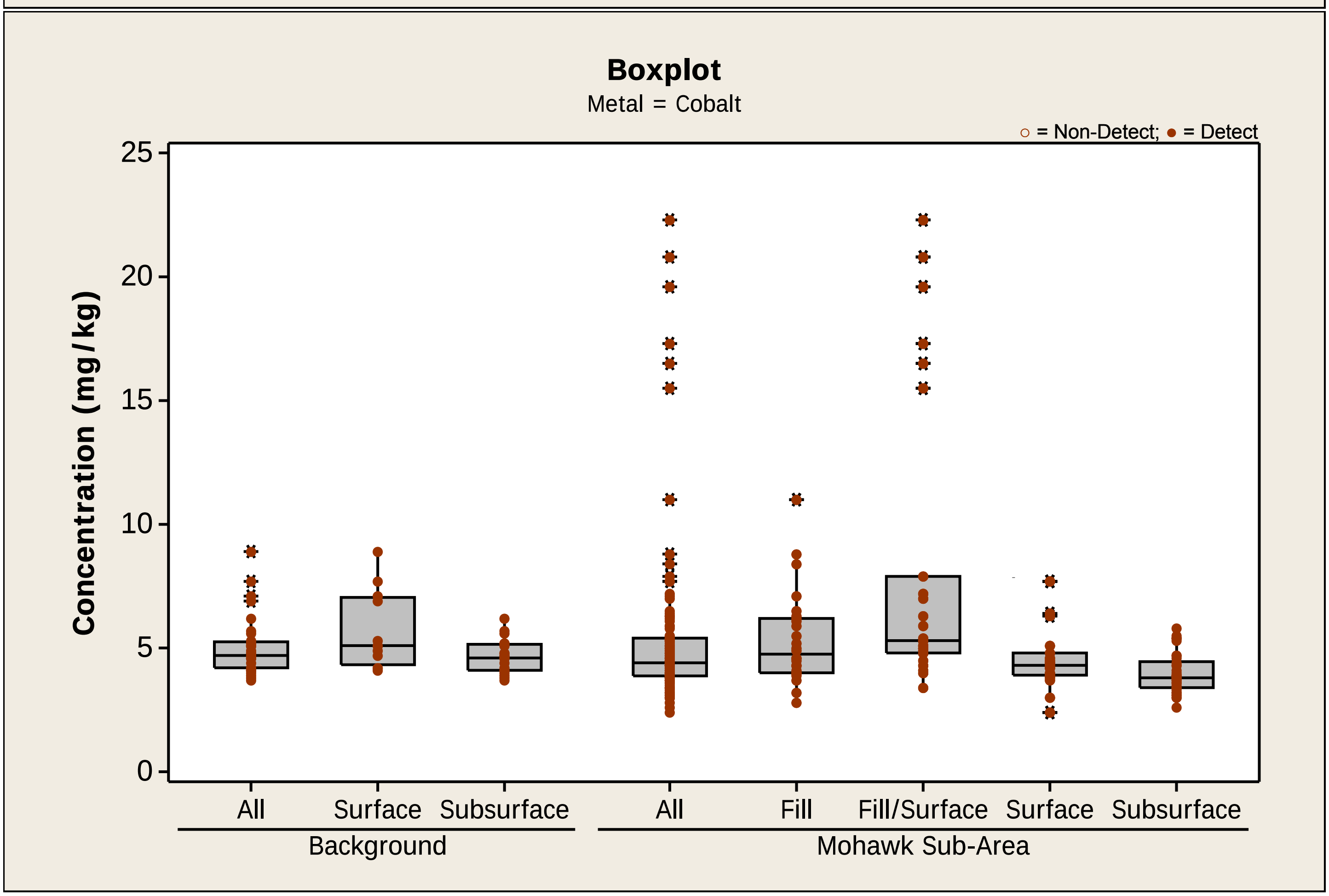

Probability Plot
Normal - 95% CI
Metal = Chromium (Total)
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-100
0
100
200
300
400
Concentration (mg/kg)
Background
Mohawk

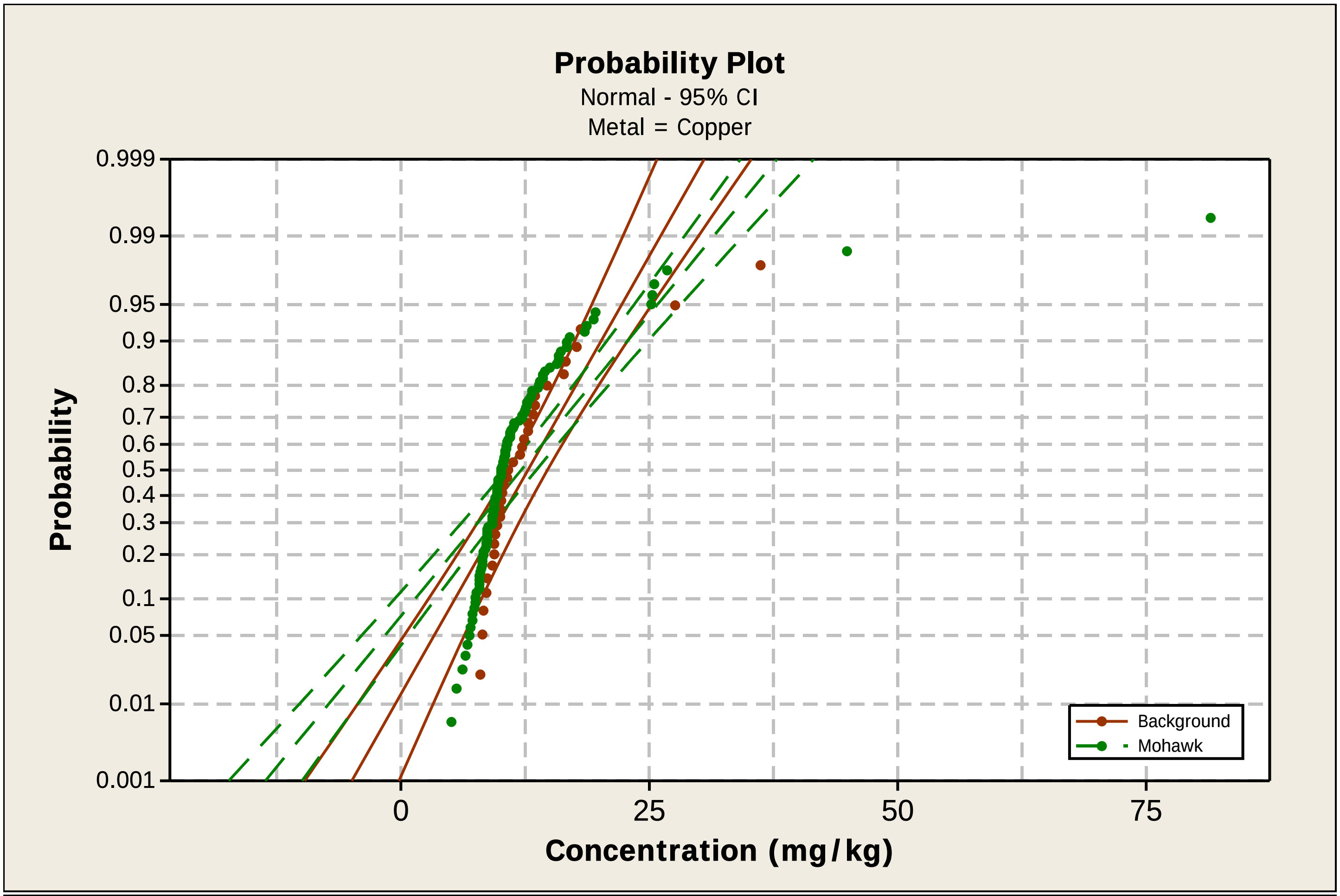

Boxplot
Metal = Chromium (Total)
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
400
300
200
100
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Chromium (VI)
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-1
0
1
2
3
4
5
Concentration (mg/kg)
Background
Mohawk

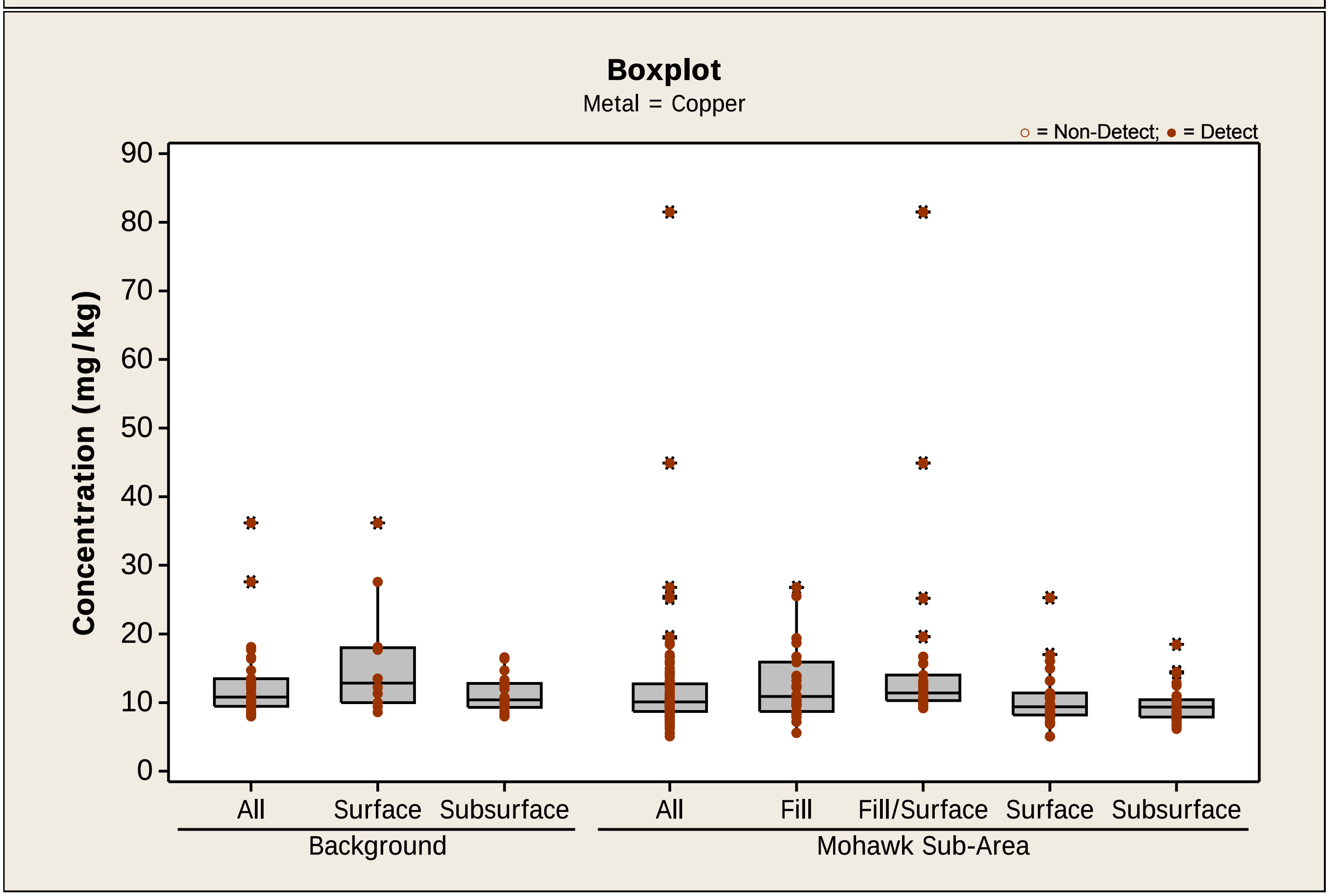

Boxplot
Metal = Chromium (VI)
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
5
4
3
2
1
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Cobalt
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-10
-5
0
5
10
15
20
25
Concentration (mg/kg)
Background
Mohawk

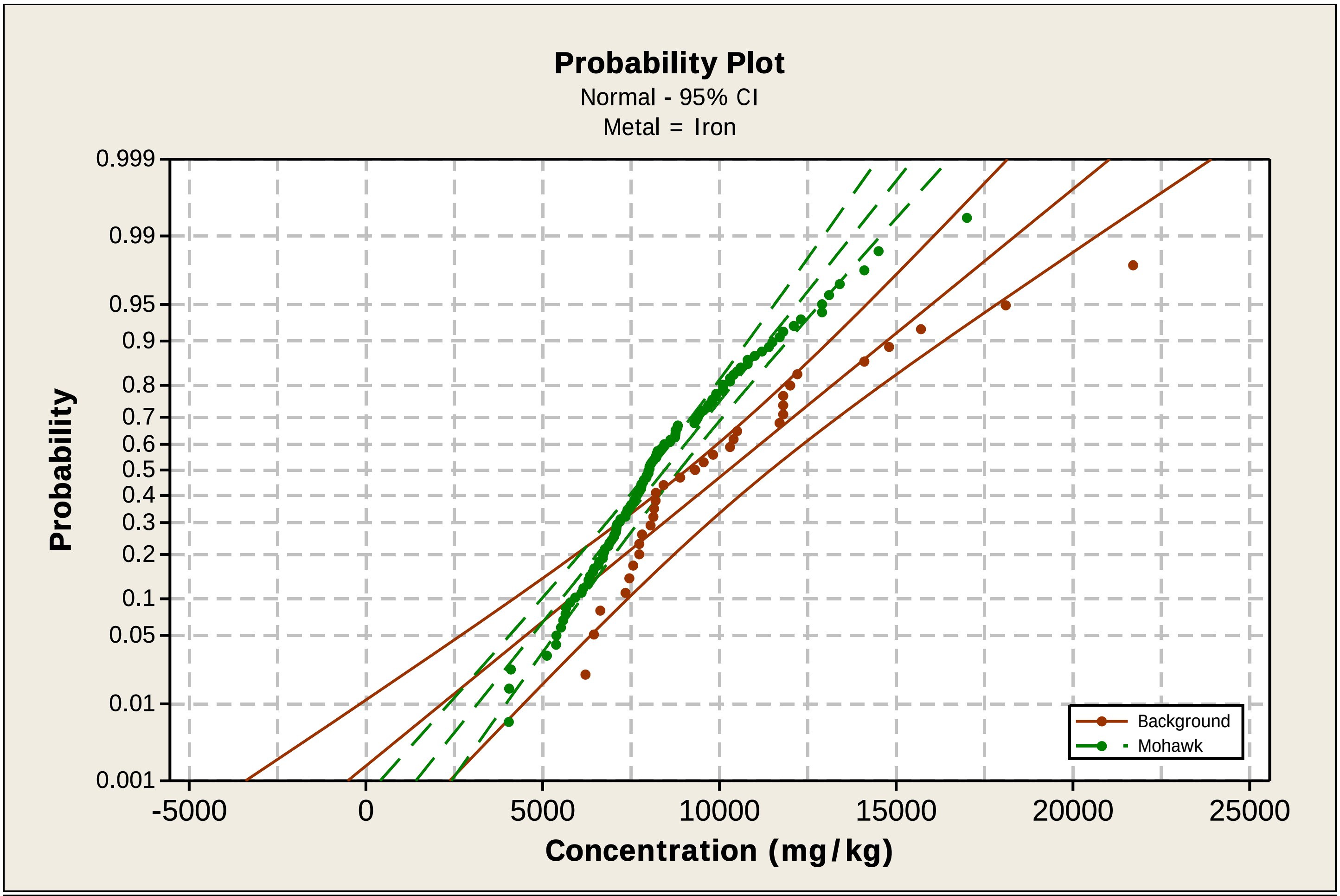

Boxplot
Metal = Cobalt
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
25
20
15
10
5
0
All
Surface
Subsurface
Background
All
Fill
Fill/Surface
Surface
Subsurface
Mohawk Sub-Area



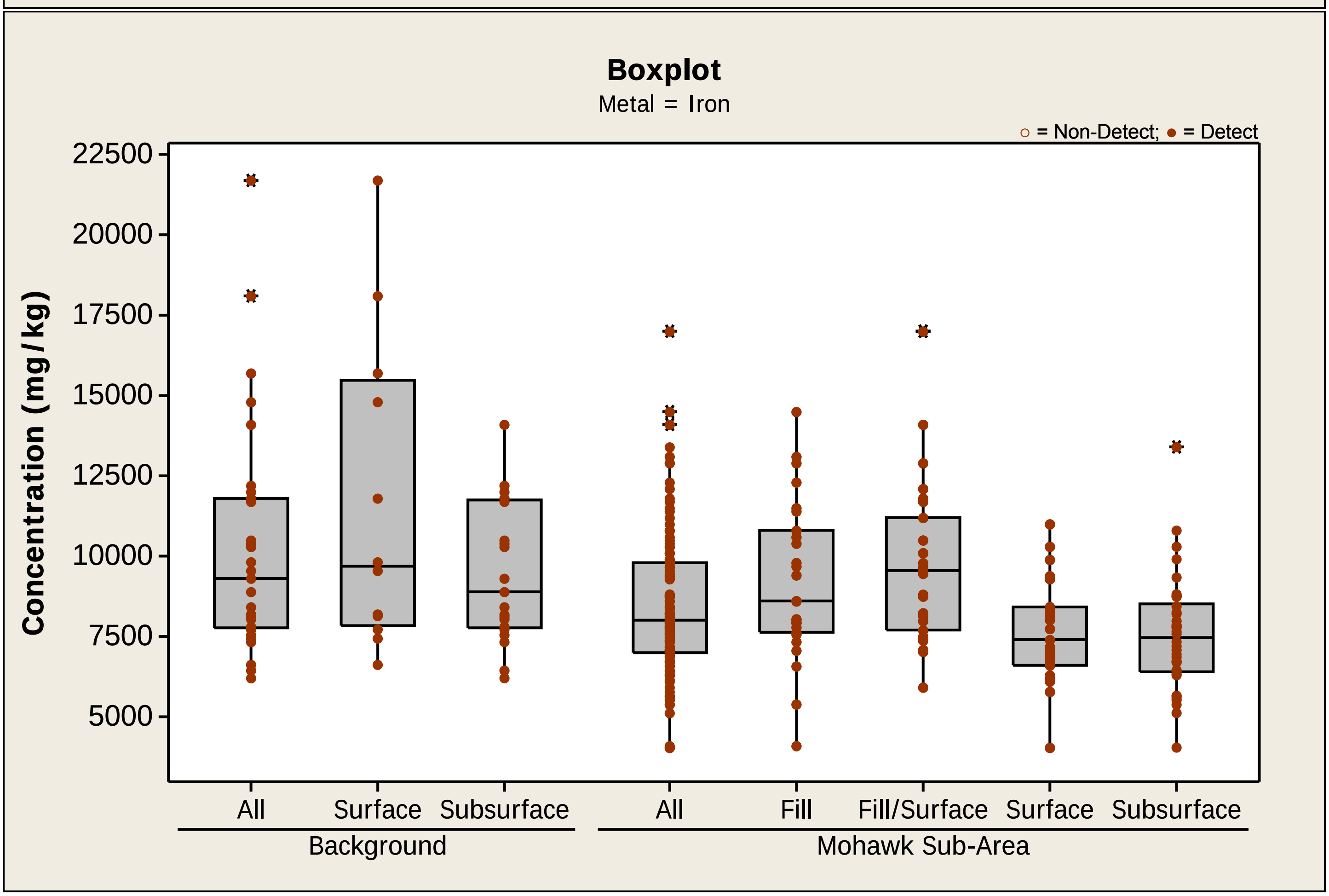
Probability Plot
Normal - 95% CI
Metal = Copper
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
25
50
75
Concentration (mg/kg)
Background
Mohawk



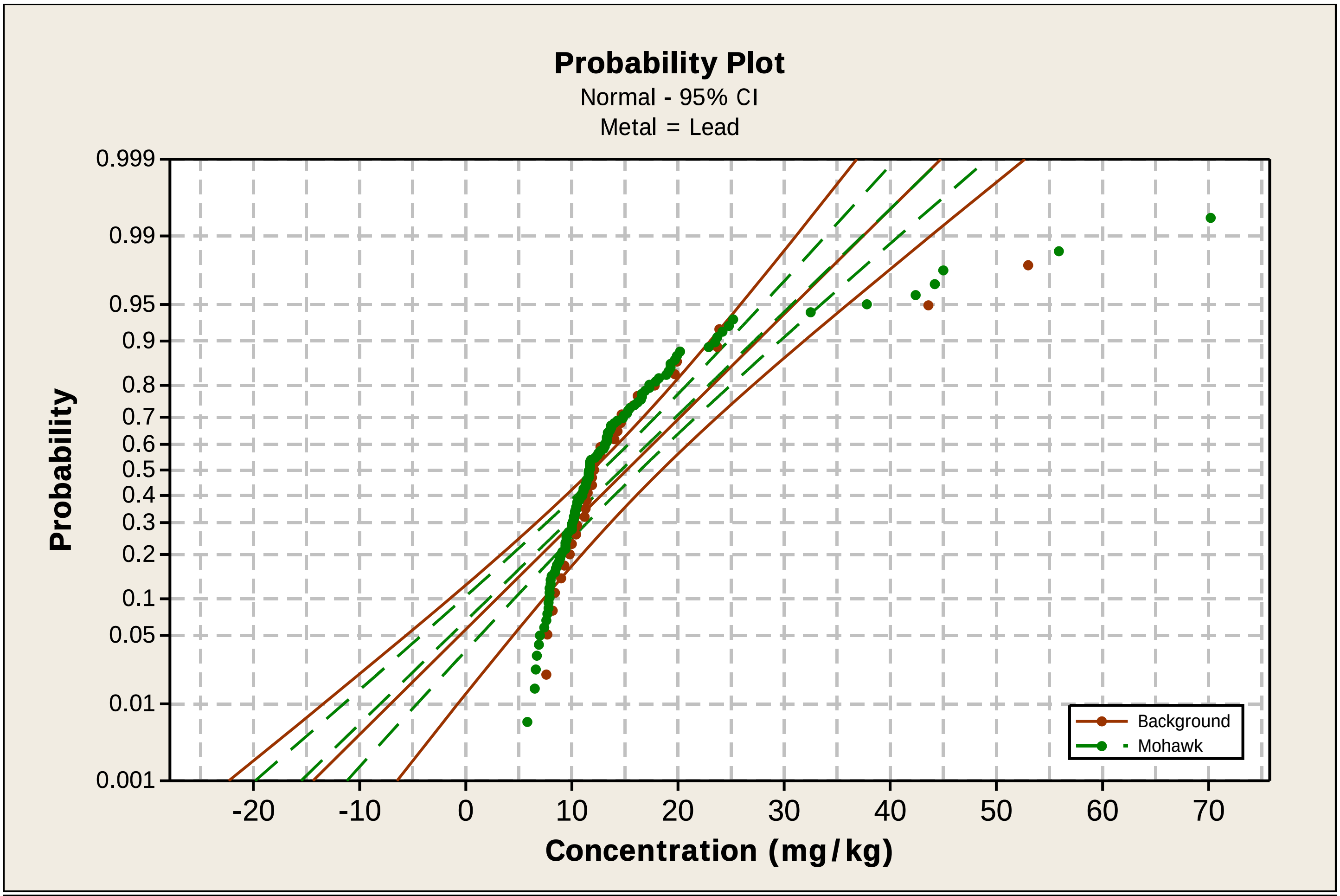
Boxplot
Metal = Copper
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
90
80
70
60
50
40
30
20
10
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



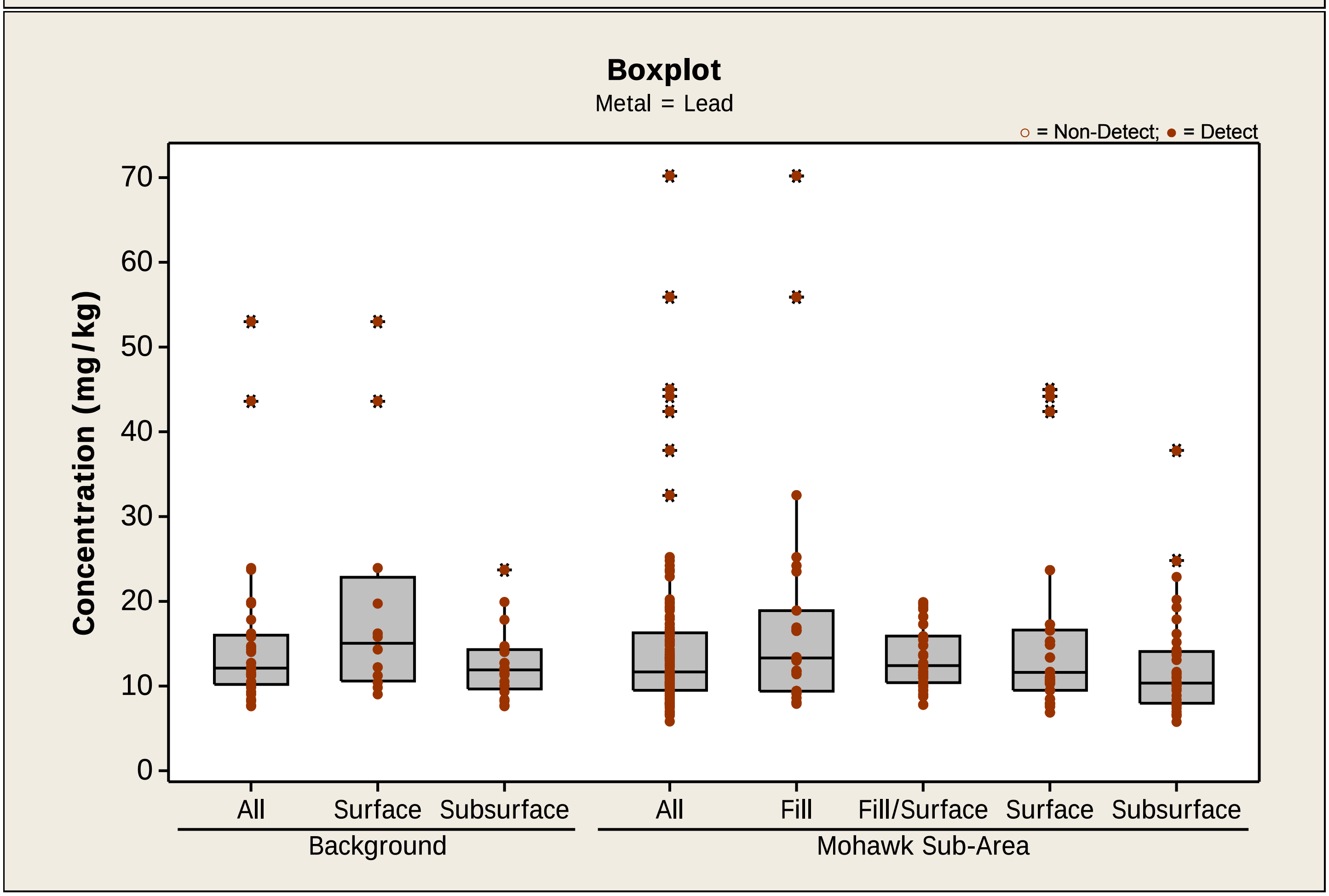
Probability Plot
Normal - 95% CI
Metal = Iron
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-5000
0
5000
10000
15000
20000
25000
Concentration (mg/kg)
Background
Mohawk



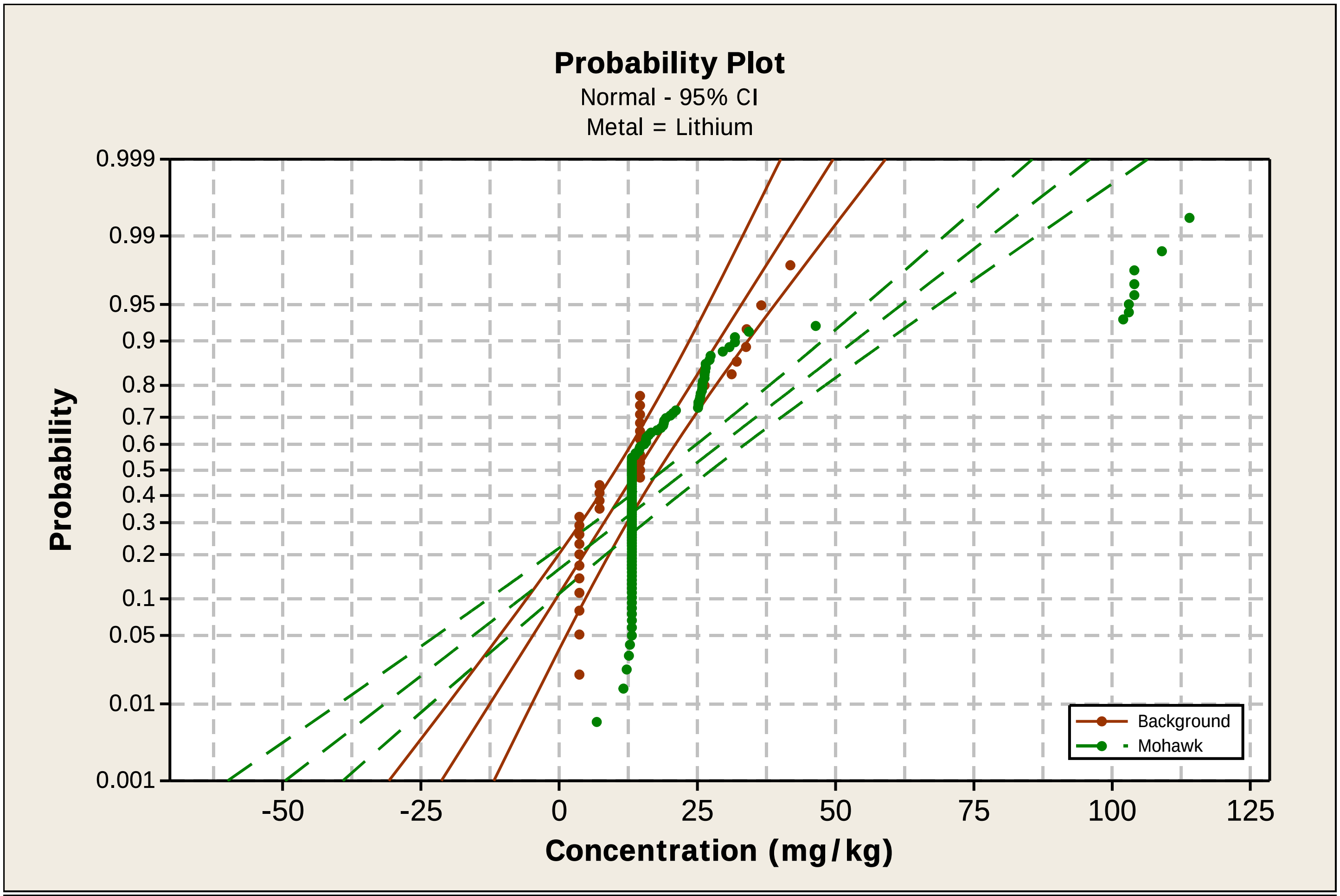
Boxplot
Metal = Iron
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
22500
20000
17500
15000
12500
10000
7500
5000
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

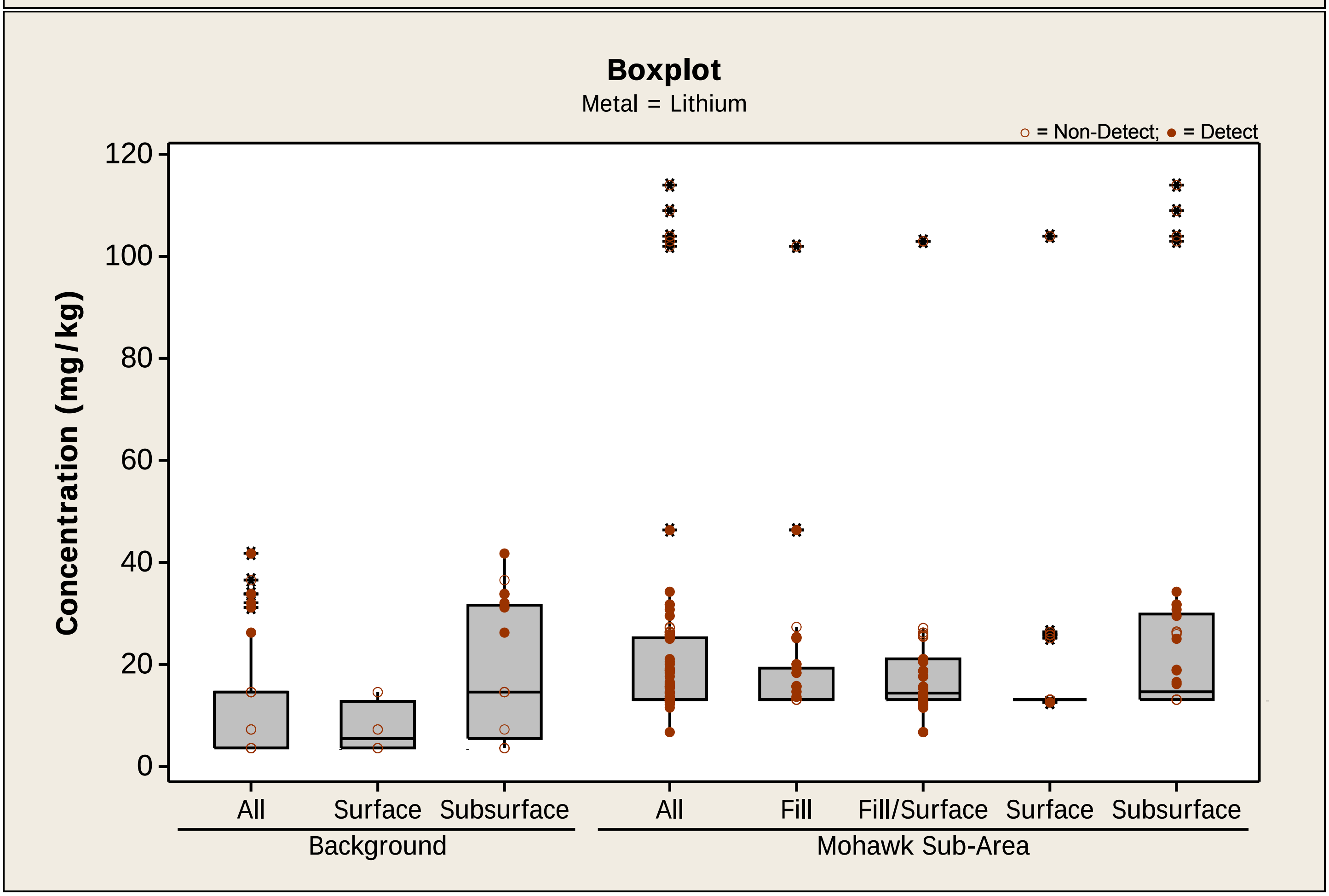


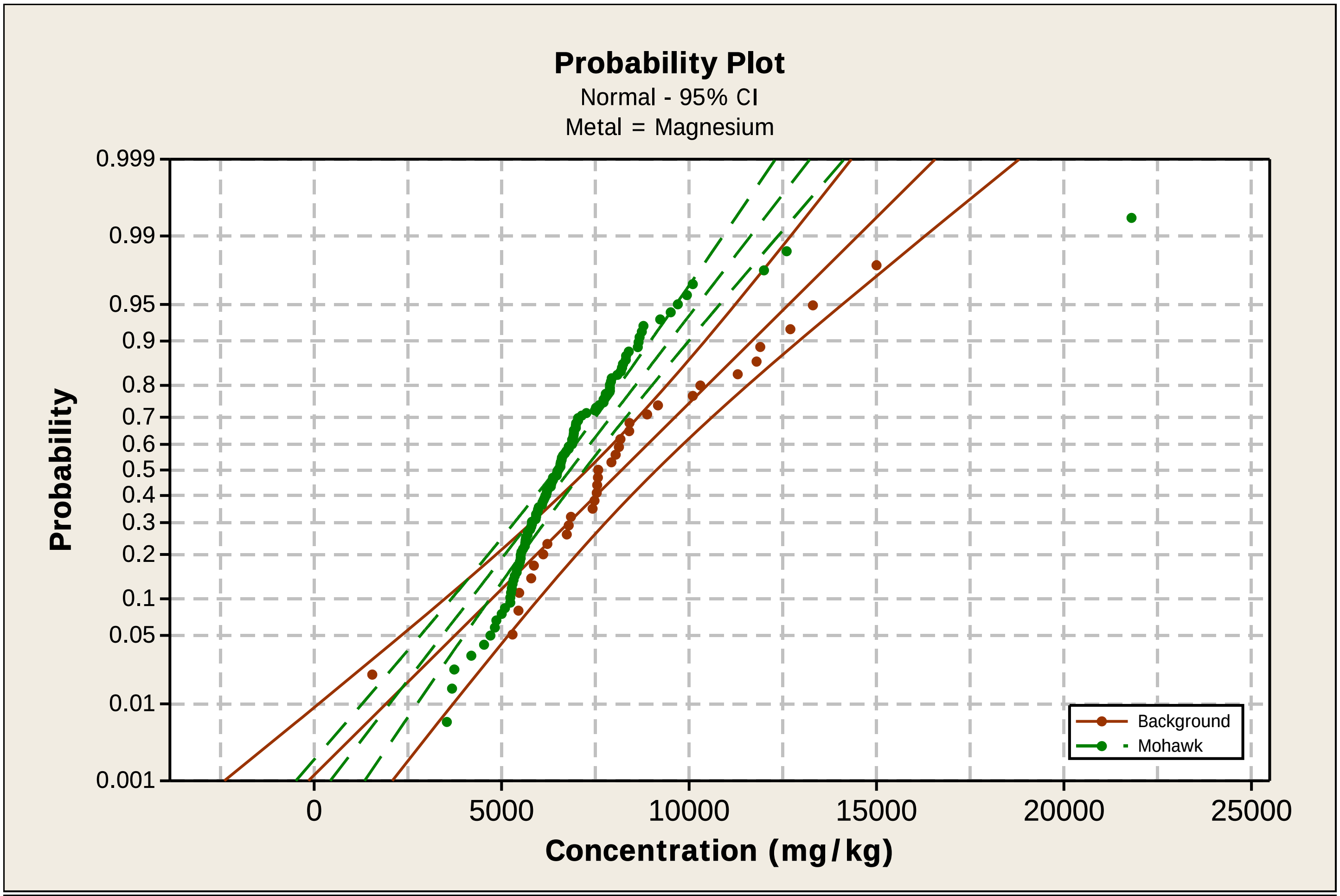
Probability Plot
Normal - 95% CI
Metal = Lead
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-20
-10
0
10
20
30
40
50
60
70
Concentration (mg/kg)
Background
Mohawk



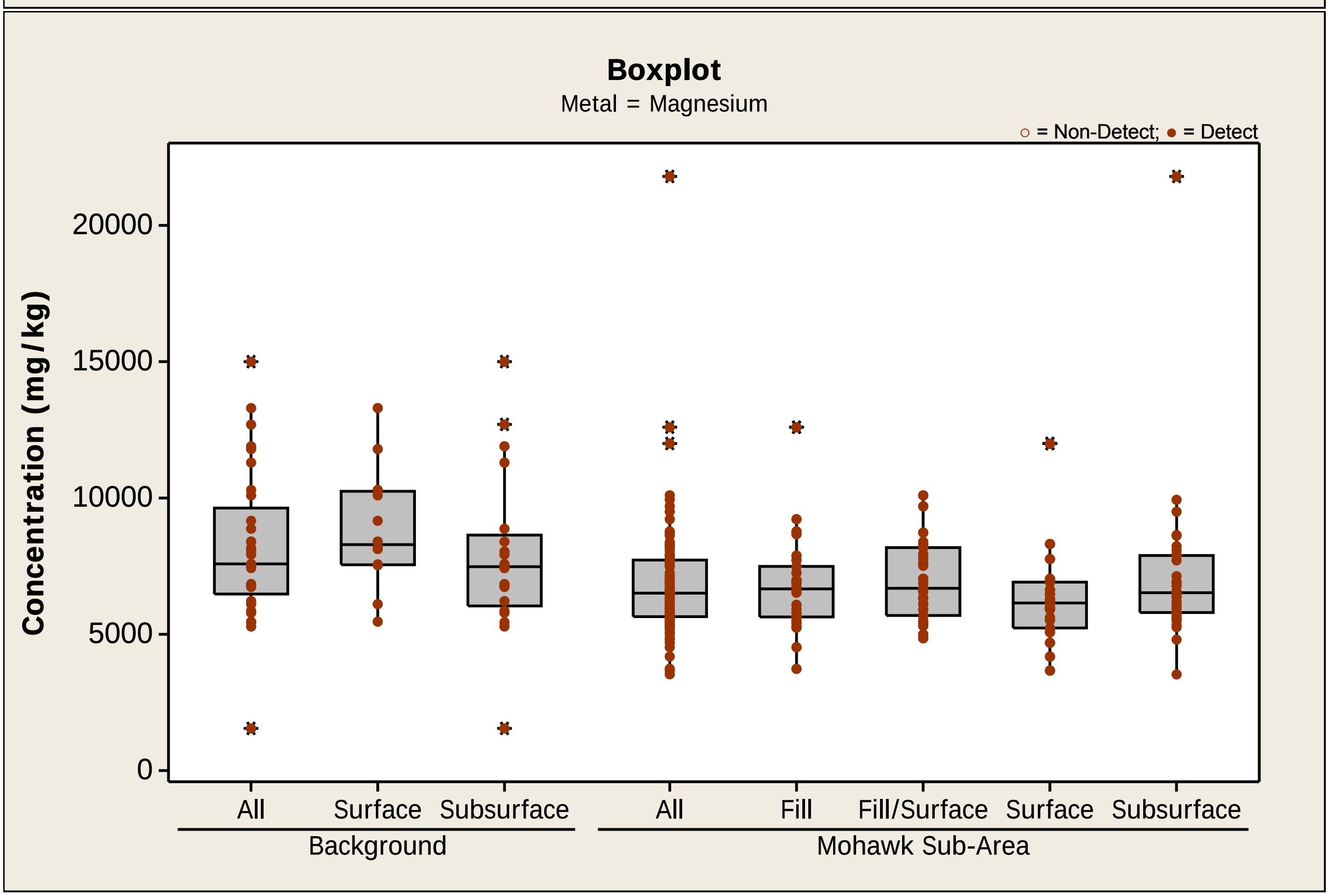
Boxplot
Metal = Lead
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
70
60
50
40
30
20
10
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Lithium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-50
-25
0
25
50
75
100
125
Concentration (mg/kg)
Background
Mohawk

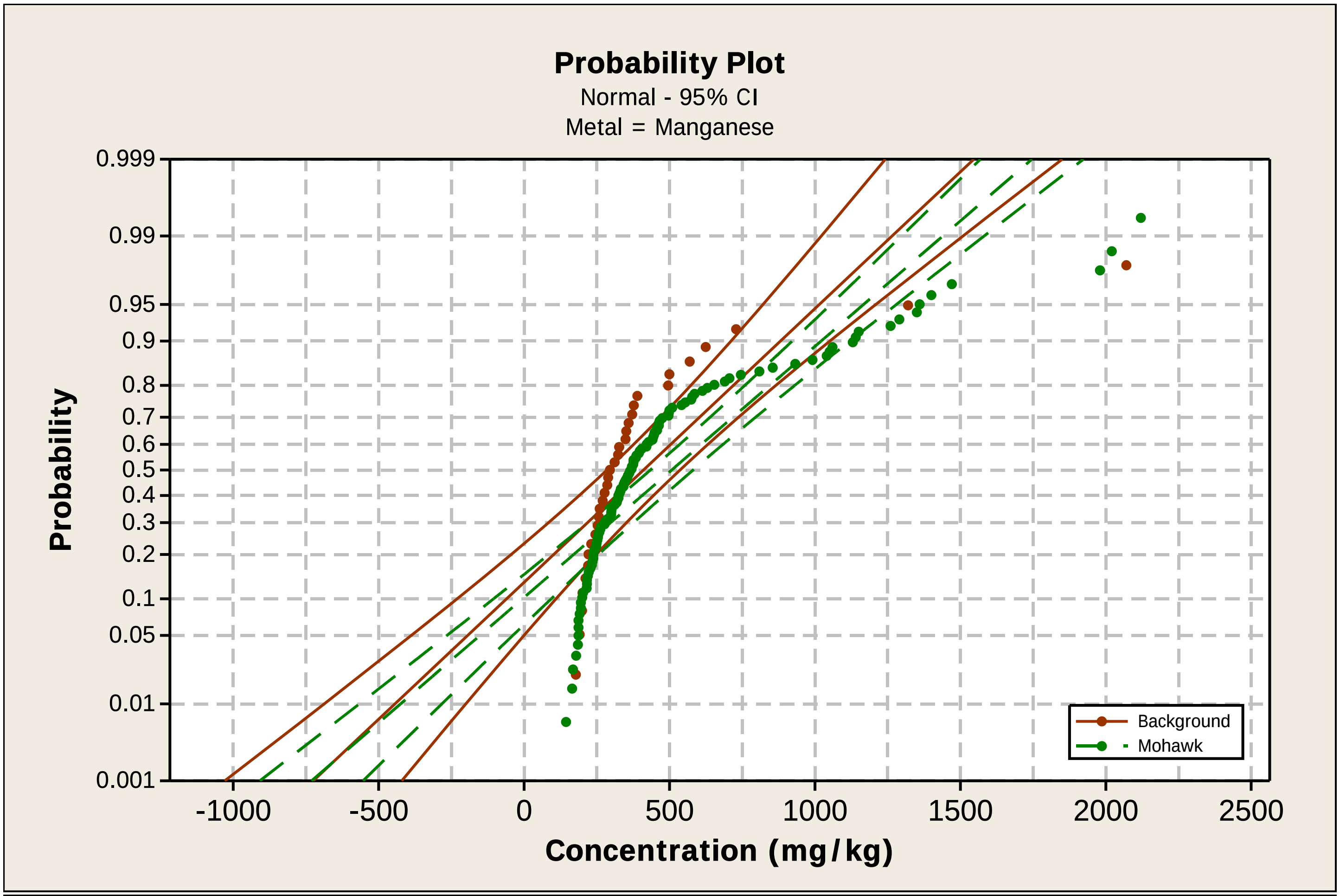

Boxplot
Metal = Lithium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
120
100
80
60
40
20
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



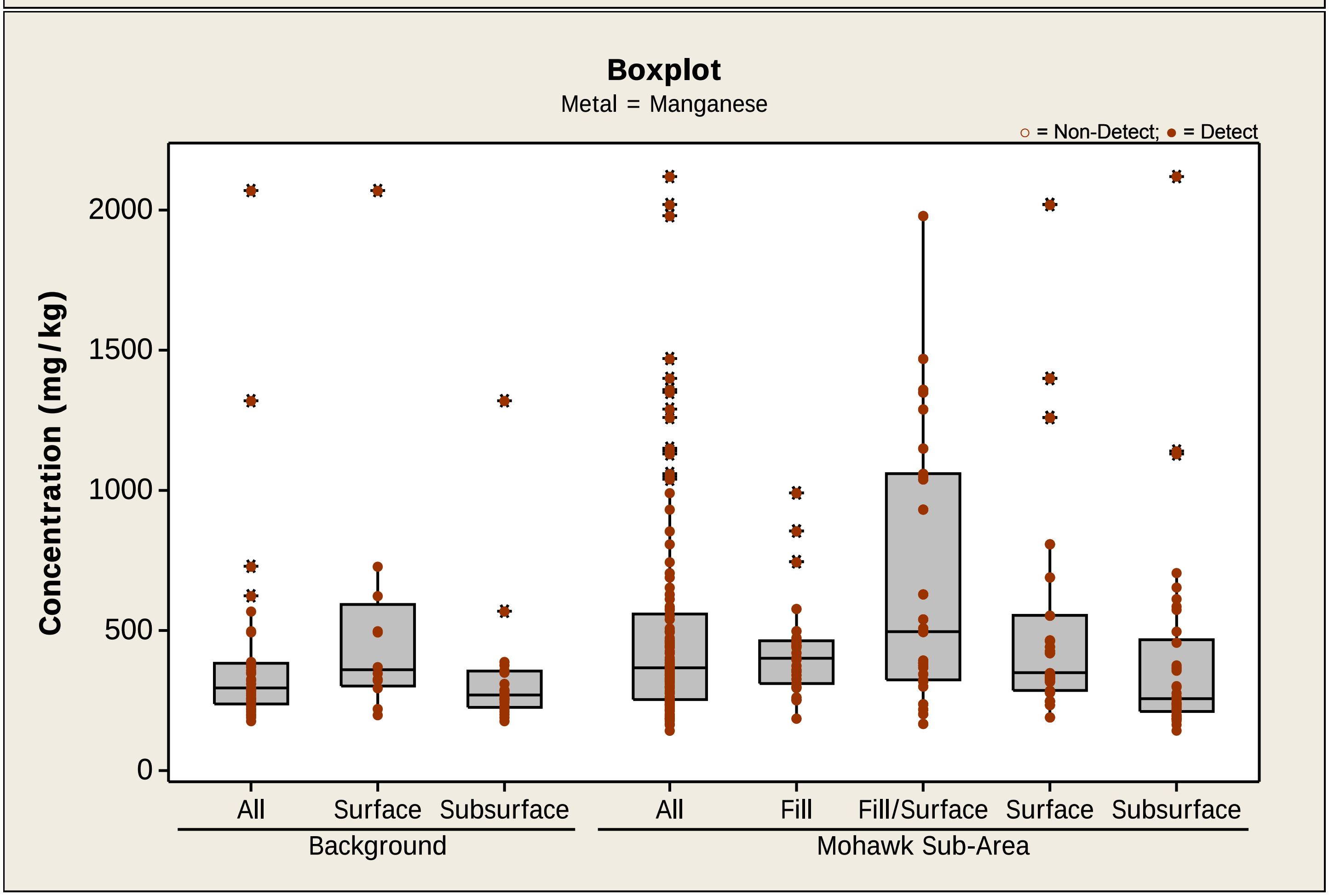
Probability Plot
Normal - 95% CI
Metal = Magnesium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
5000
10000
15000
20000
25000
Concentration (mg/kg)
Background
Mohawk



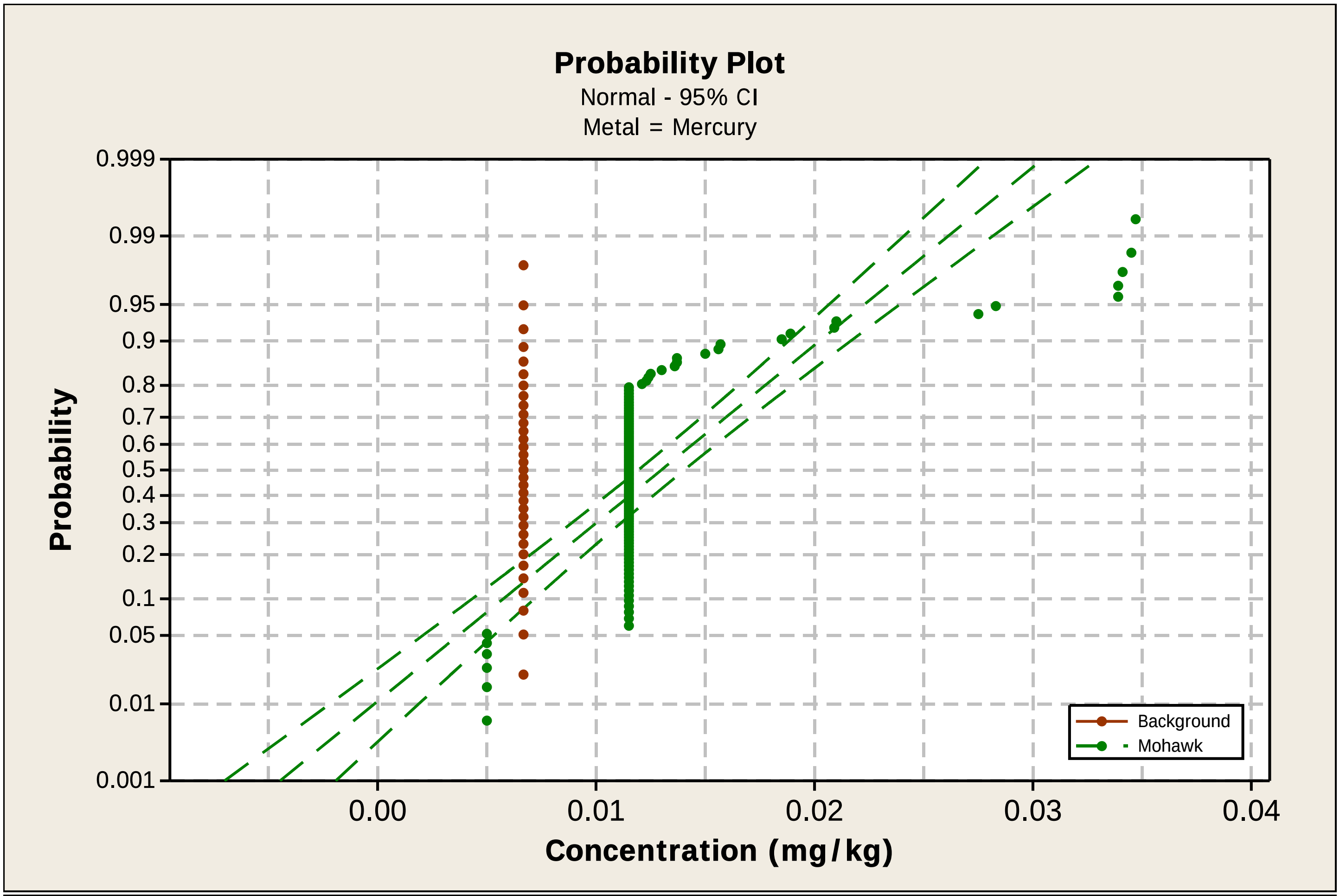
Boxplot
Metal = Magnesium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
20000
15000
10000
5000
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

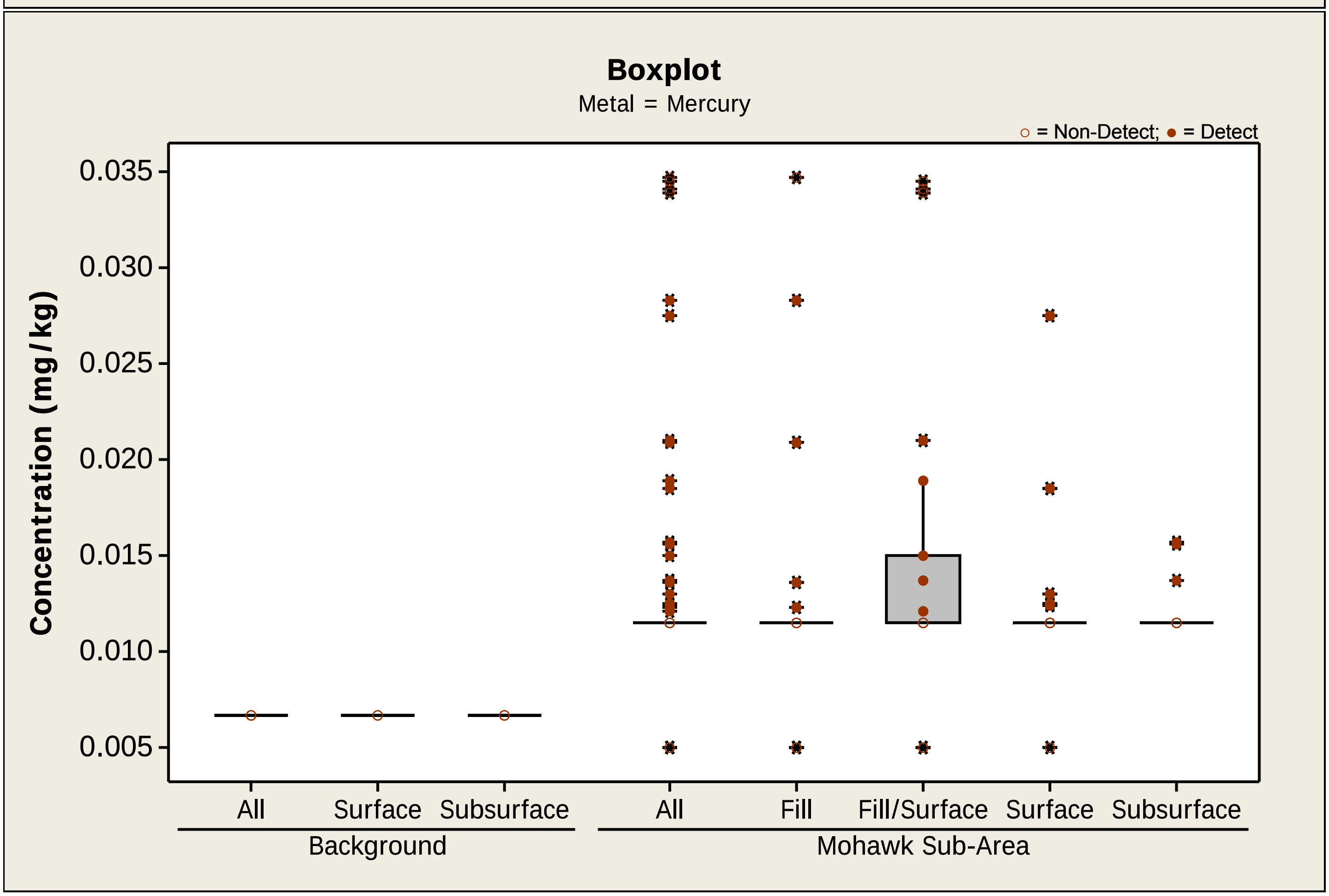


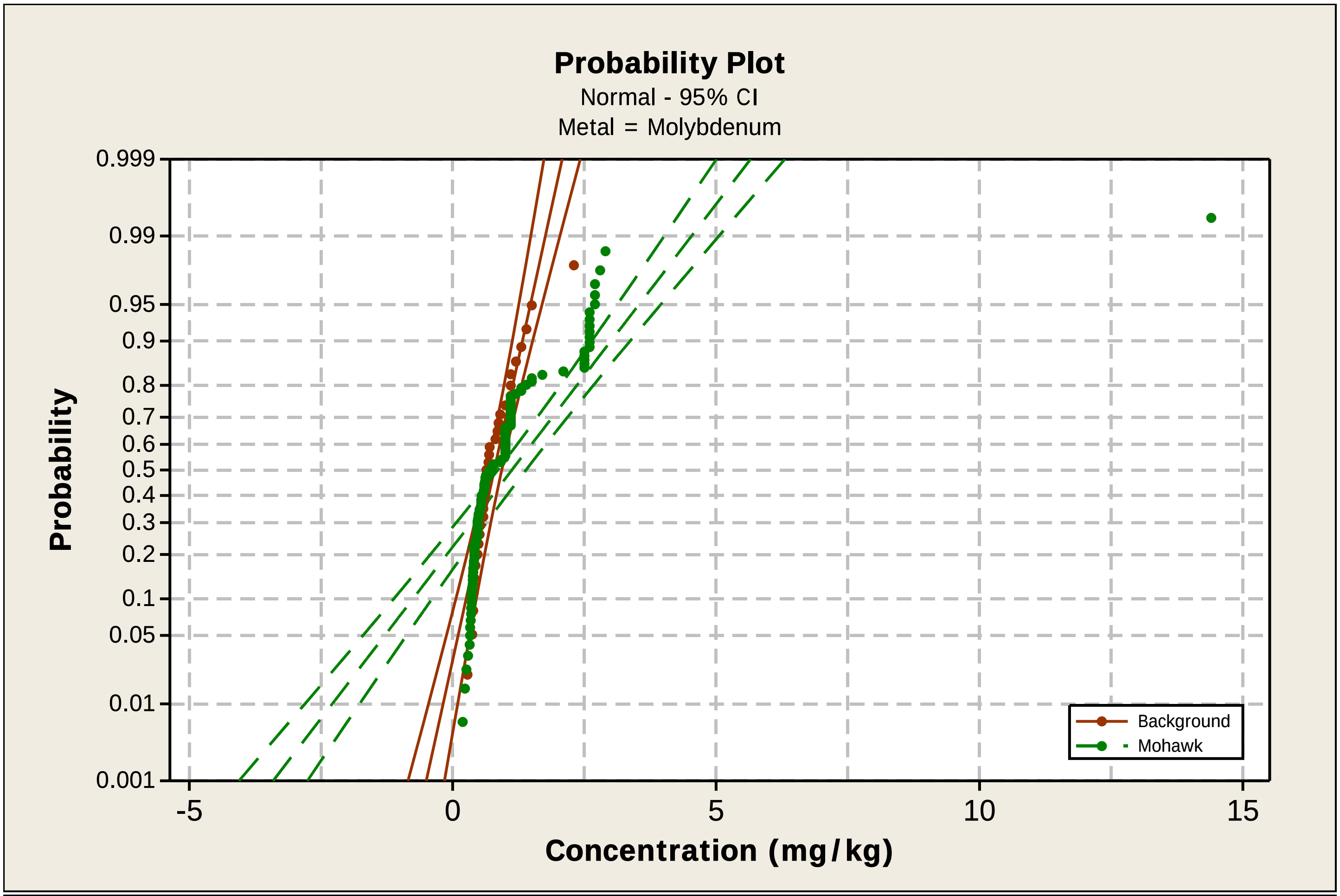
Probability Plot
Normal - 95% CI
Metal = Manganese
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-1000
-500
0
500
1000
1500
2000
2500
Concentration (mg/kg)
Background
Mohawk

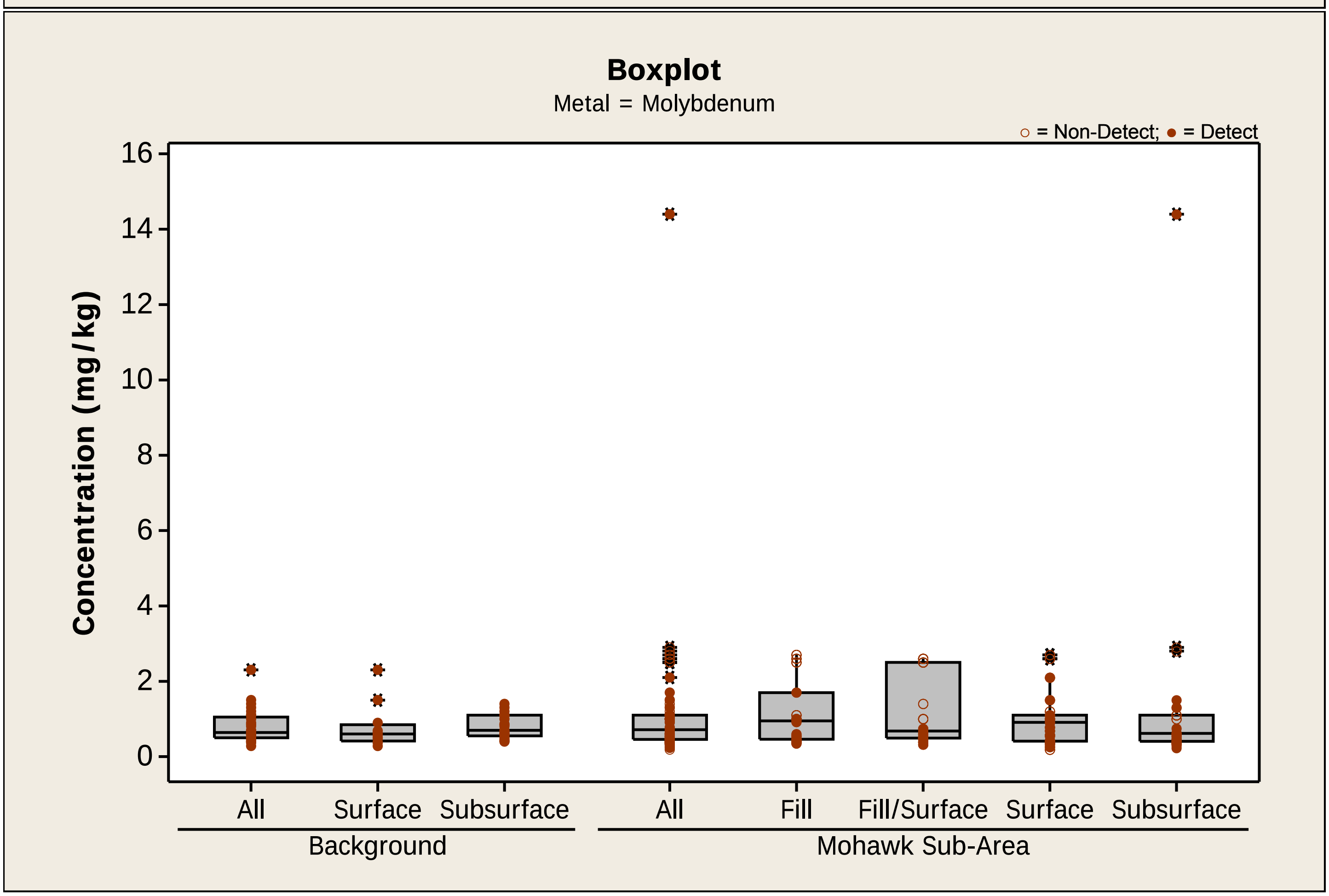


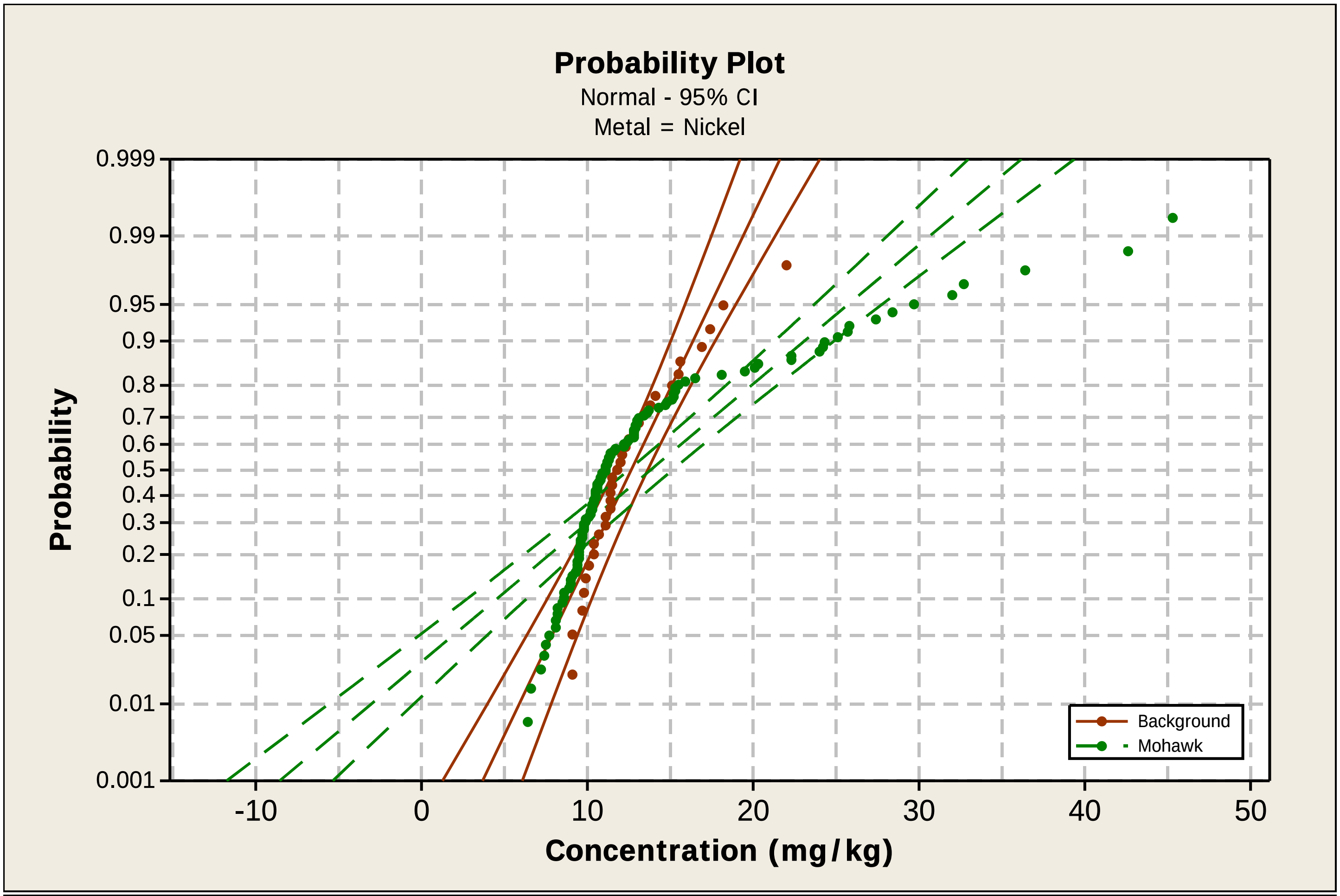
Boxplot
Metal = Manganese
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2000
1500
1000
500
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Mercury
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0.00
0.01
0.02
0.03
0.04
Concentration (mg/kg)
Background
Mohawk

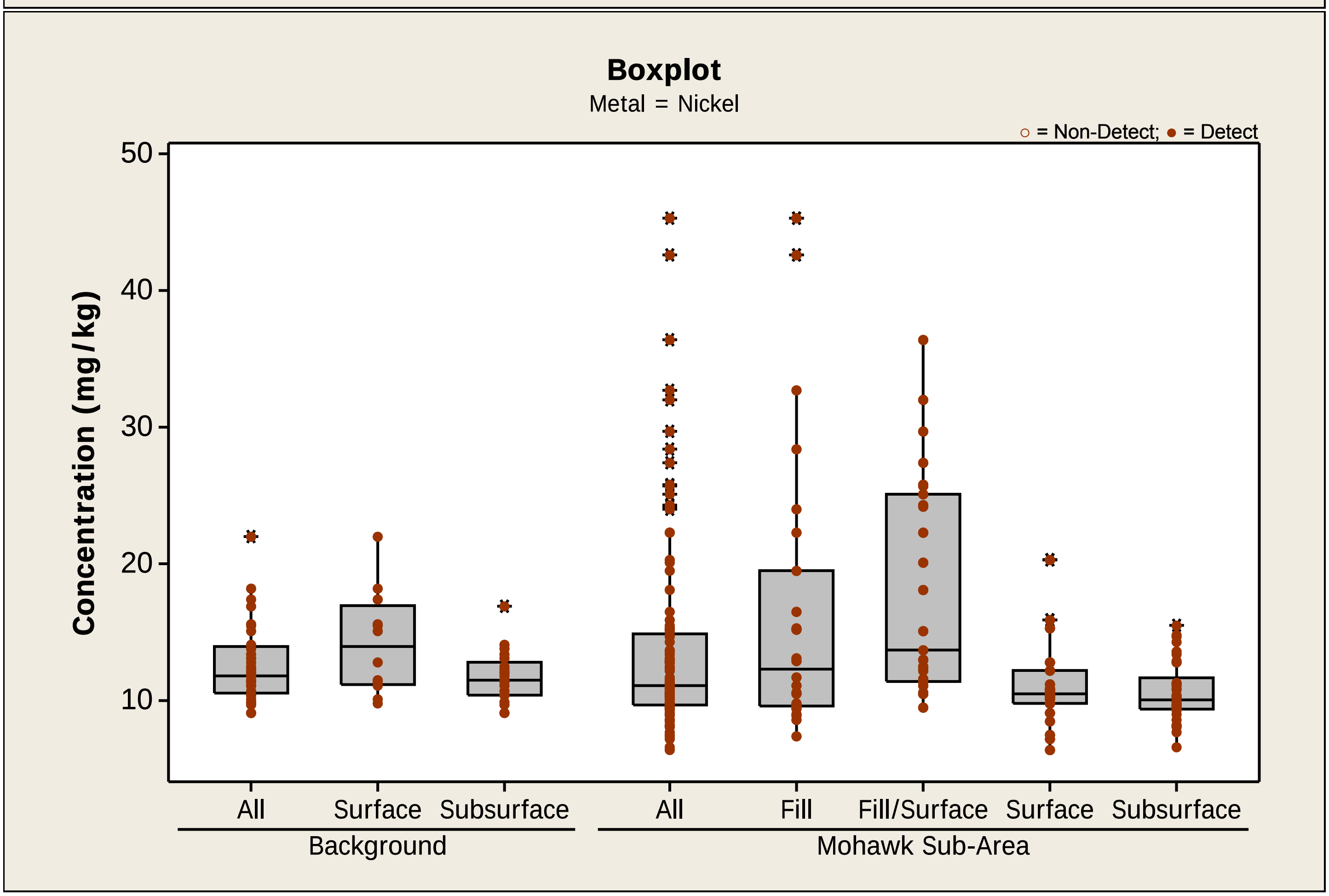

Boxplot
Metal = Mercury
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.035
0.030
0.025
0.020
0.015
0.010
0.005
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Molybdenum
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-5
0
5
10
15
Concentration (mg/kg)
Background
Mohawk

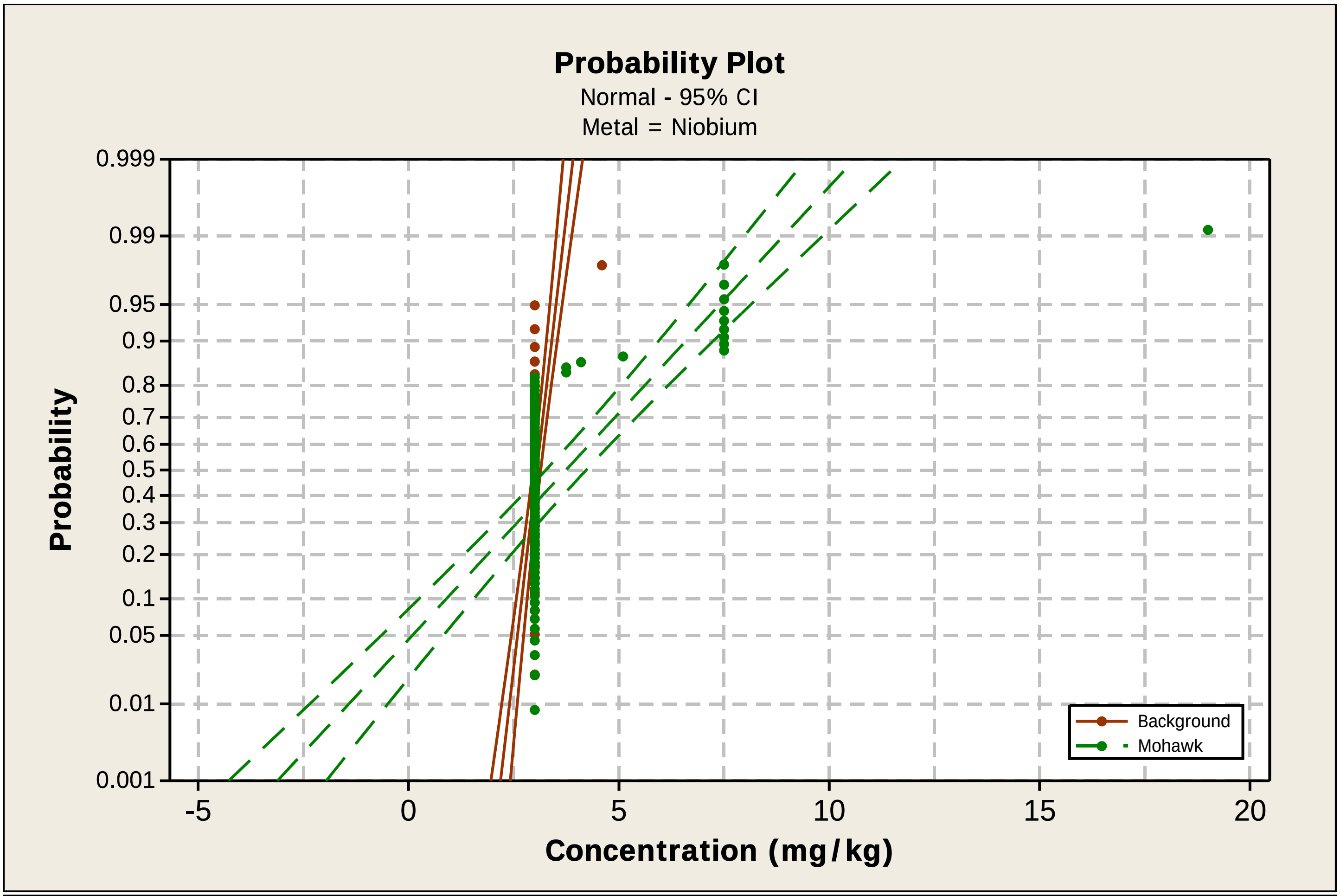

Boxplot
Metal = Molybdenum
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
16
14
12
10
8
6
4
2
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

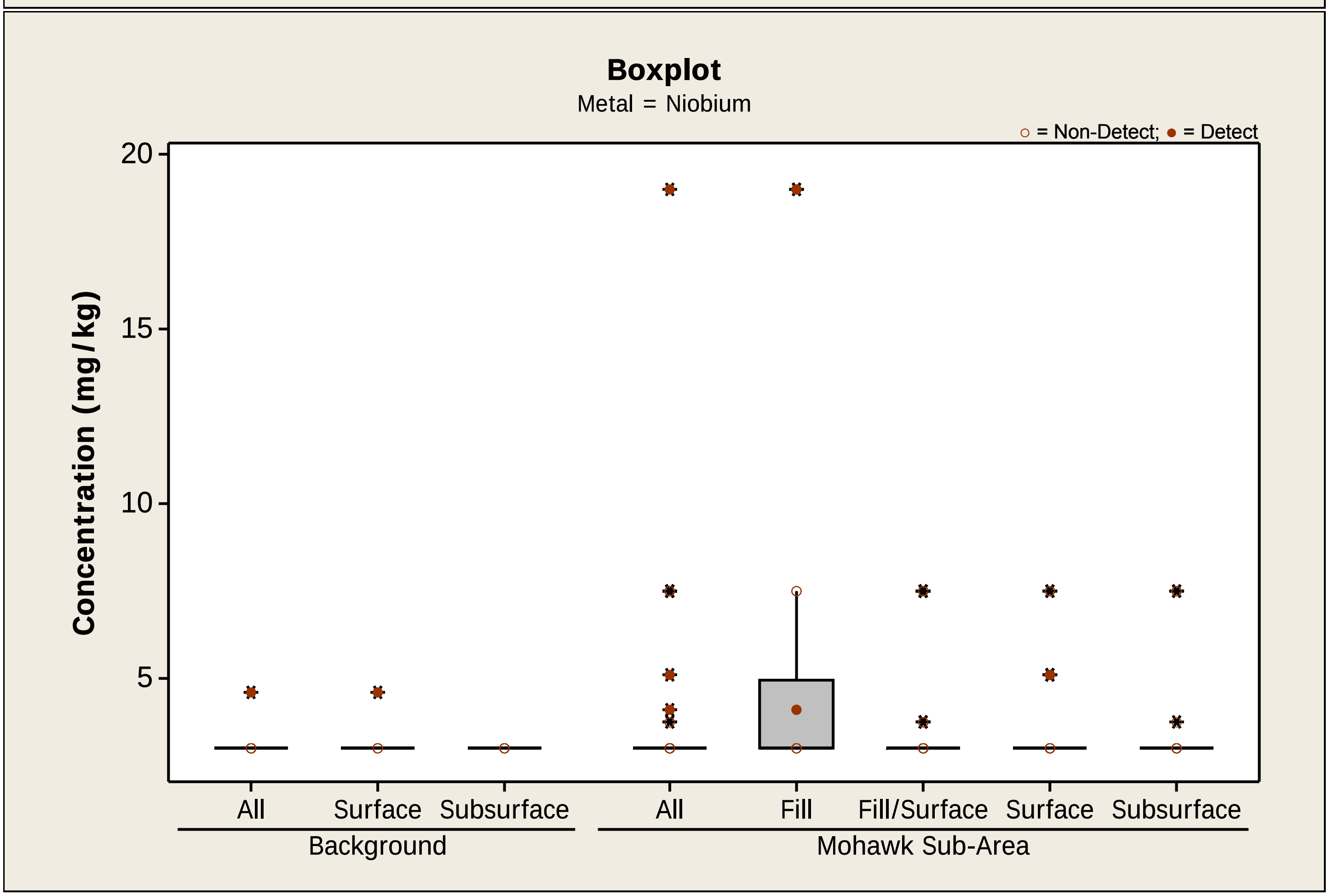


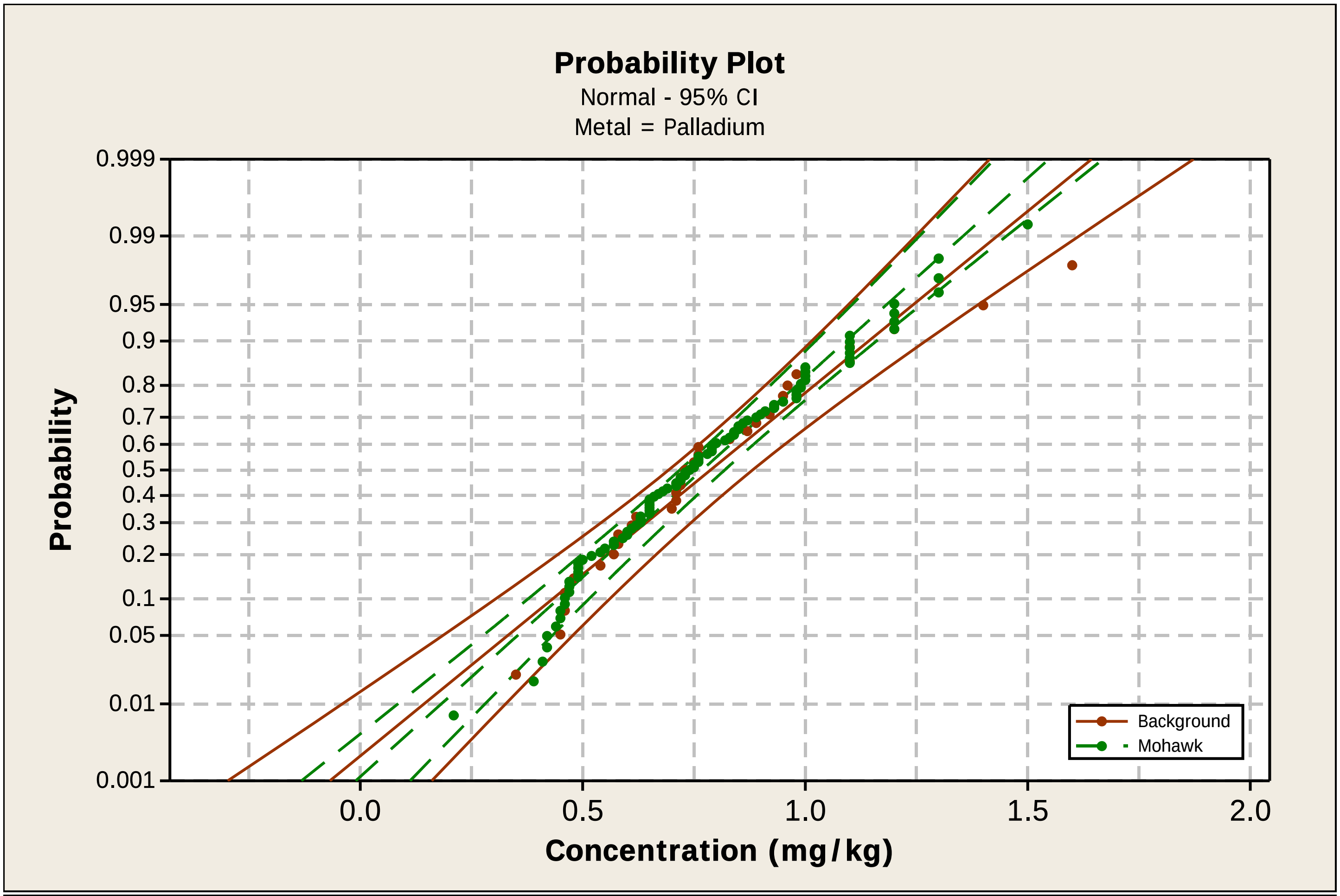
Probability Plot
Normal - 95% CI
Metal = Nickel
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-10
0
10
20
30
40
50
Concentration (mg/kg)
Background
Mohawk



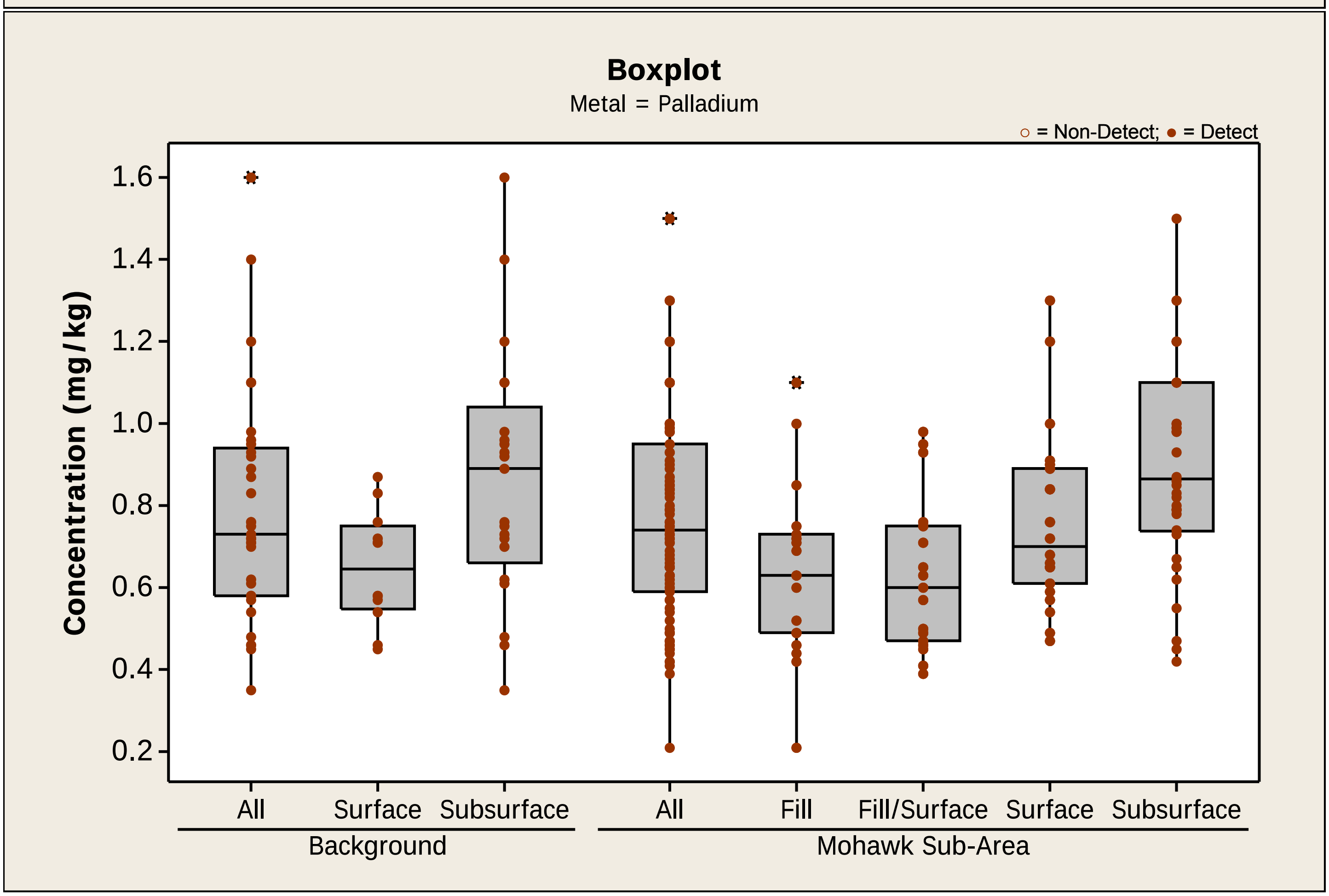
Boxplot
Metal = Nickel
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
50
40
30
20
10
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Niobium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-5
0
5
10
15
20
Concentration (mg/kg)
Background
Mohawk

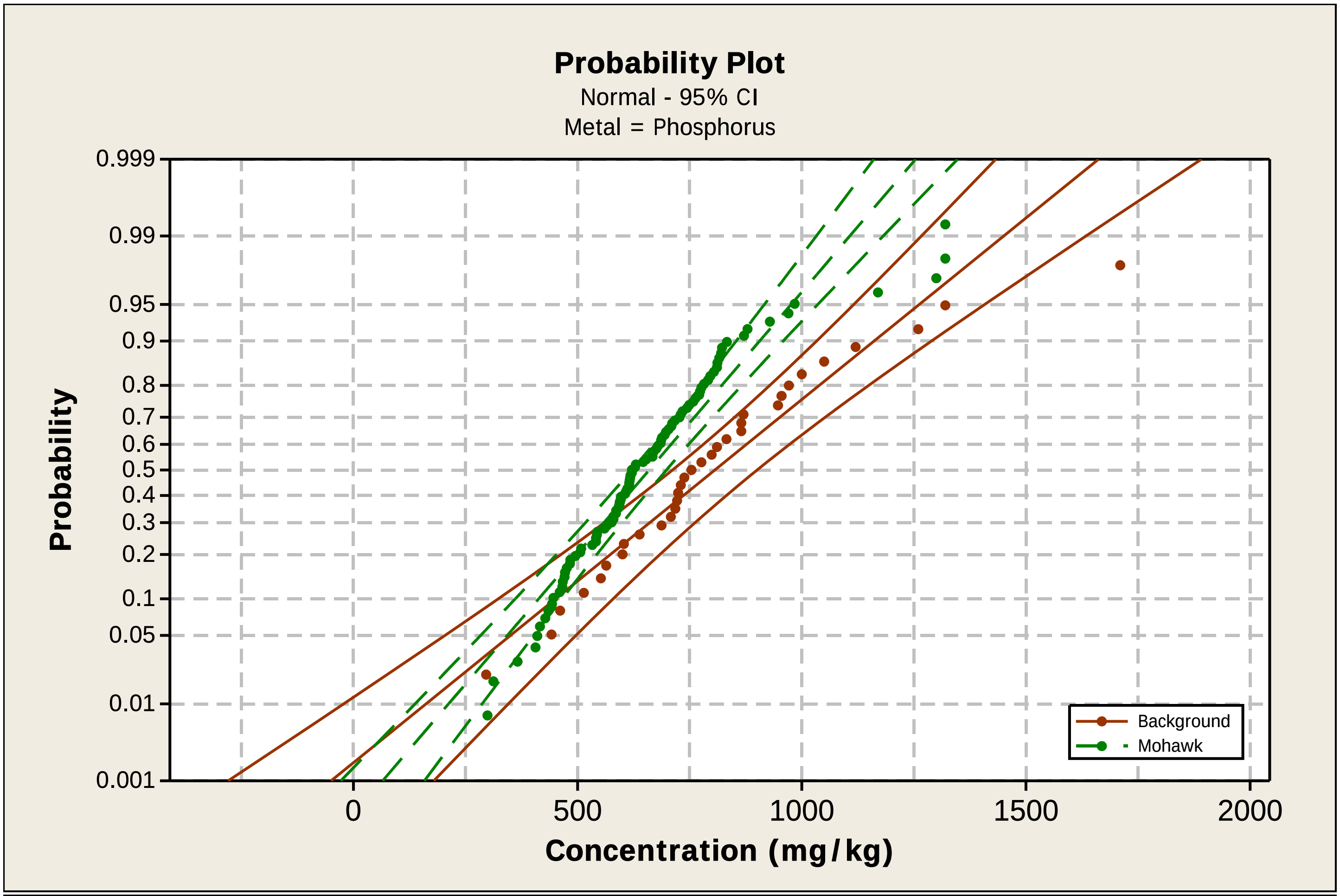

Boxplot
Metal = Niobium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
20
15
10
5
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

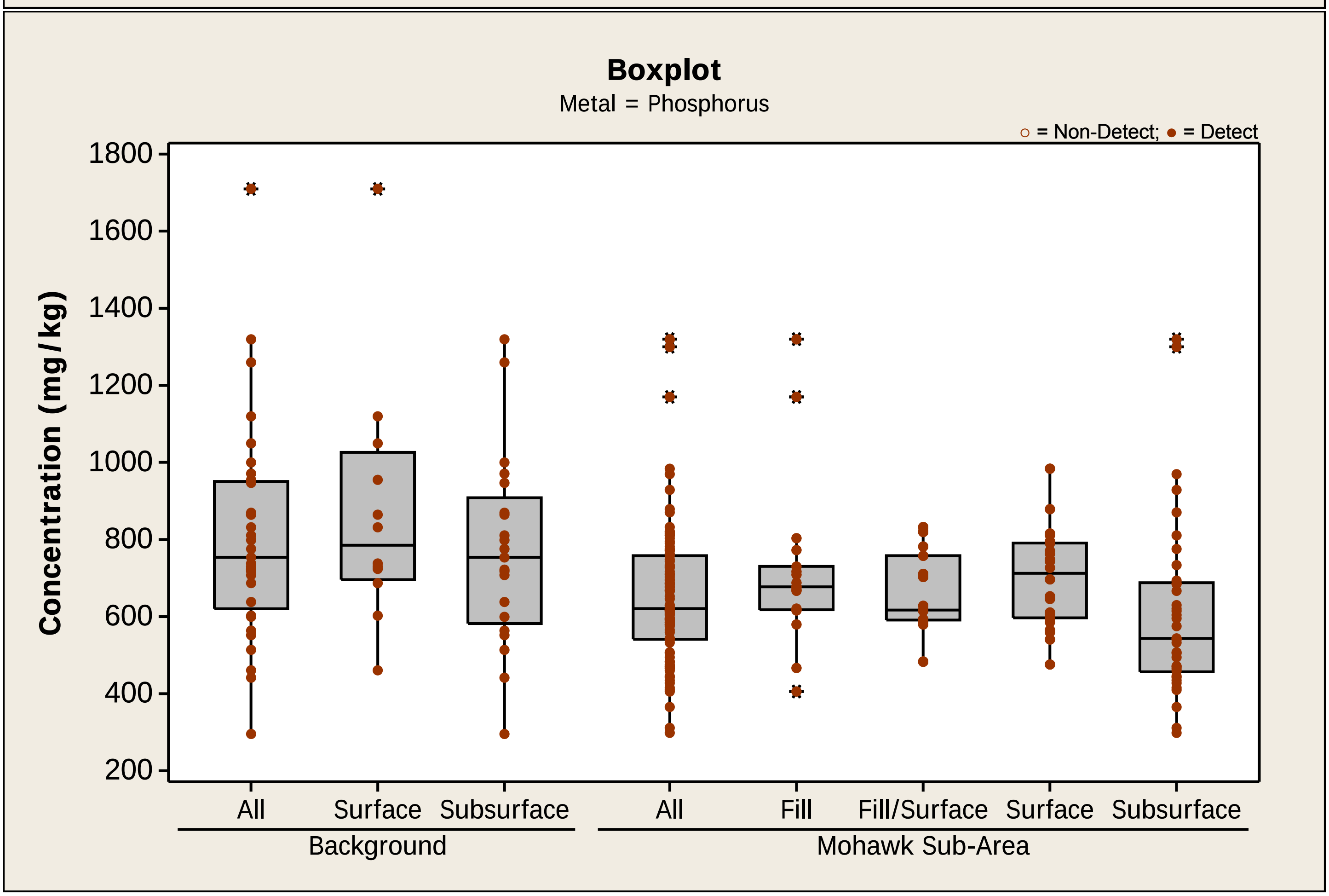


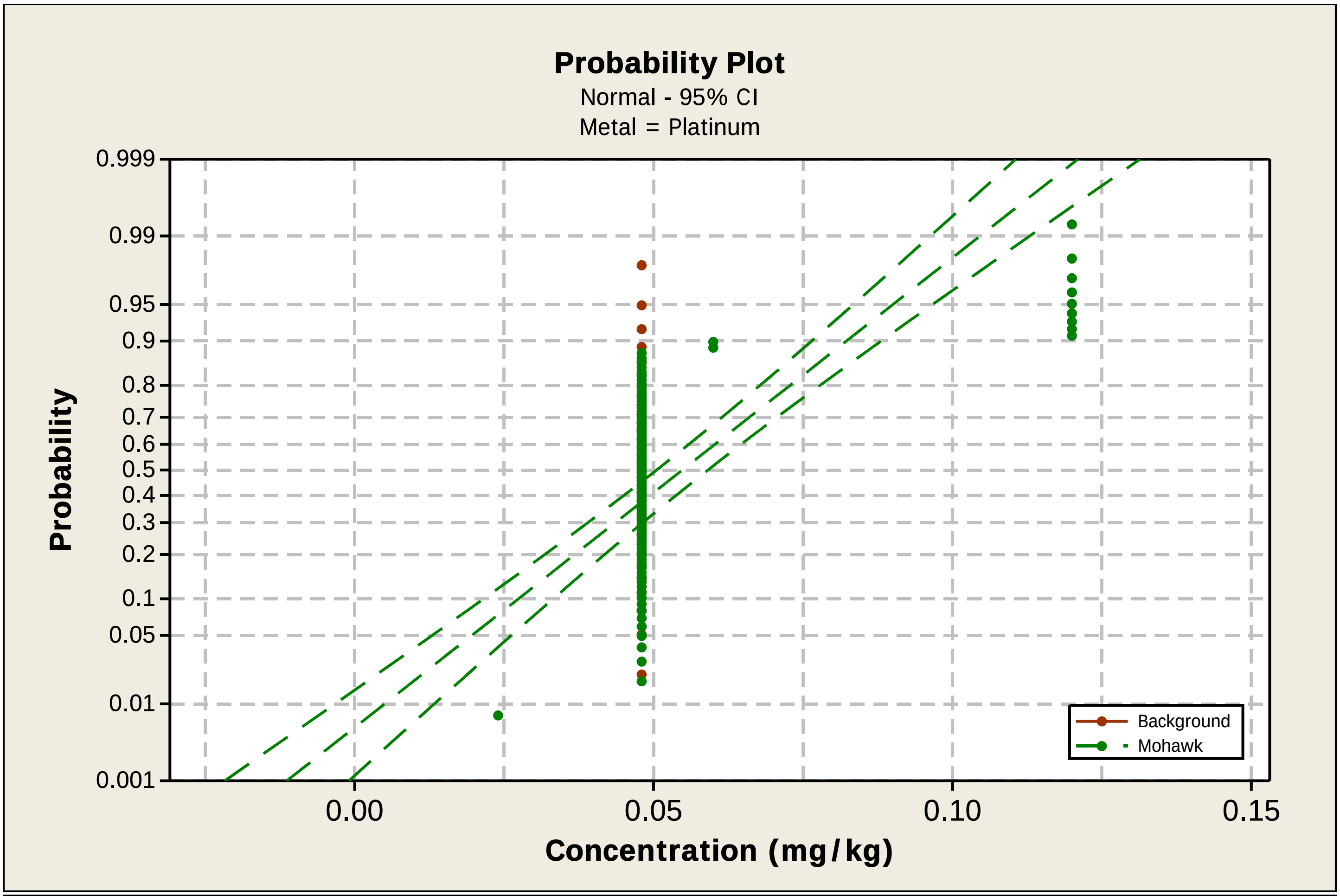
Probability Plot
Normal - 95% CI
Metal = Palladium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0.0
0.5
1.0
1.5
2.0
Concentration (mg/kg)
Background
Mohawk

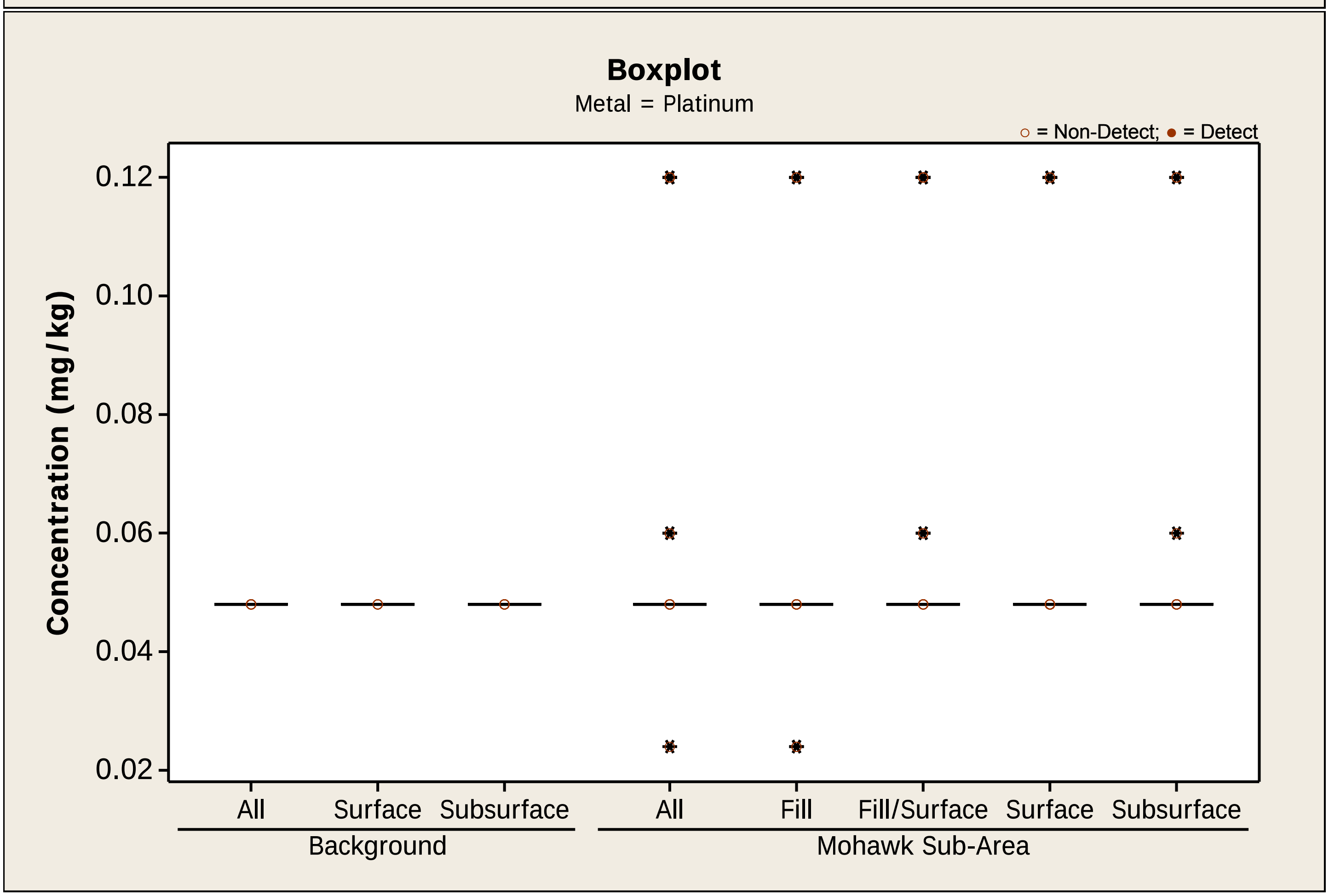


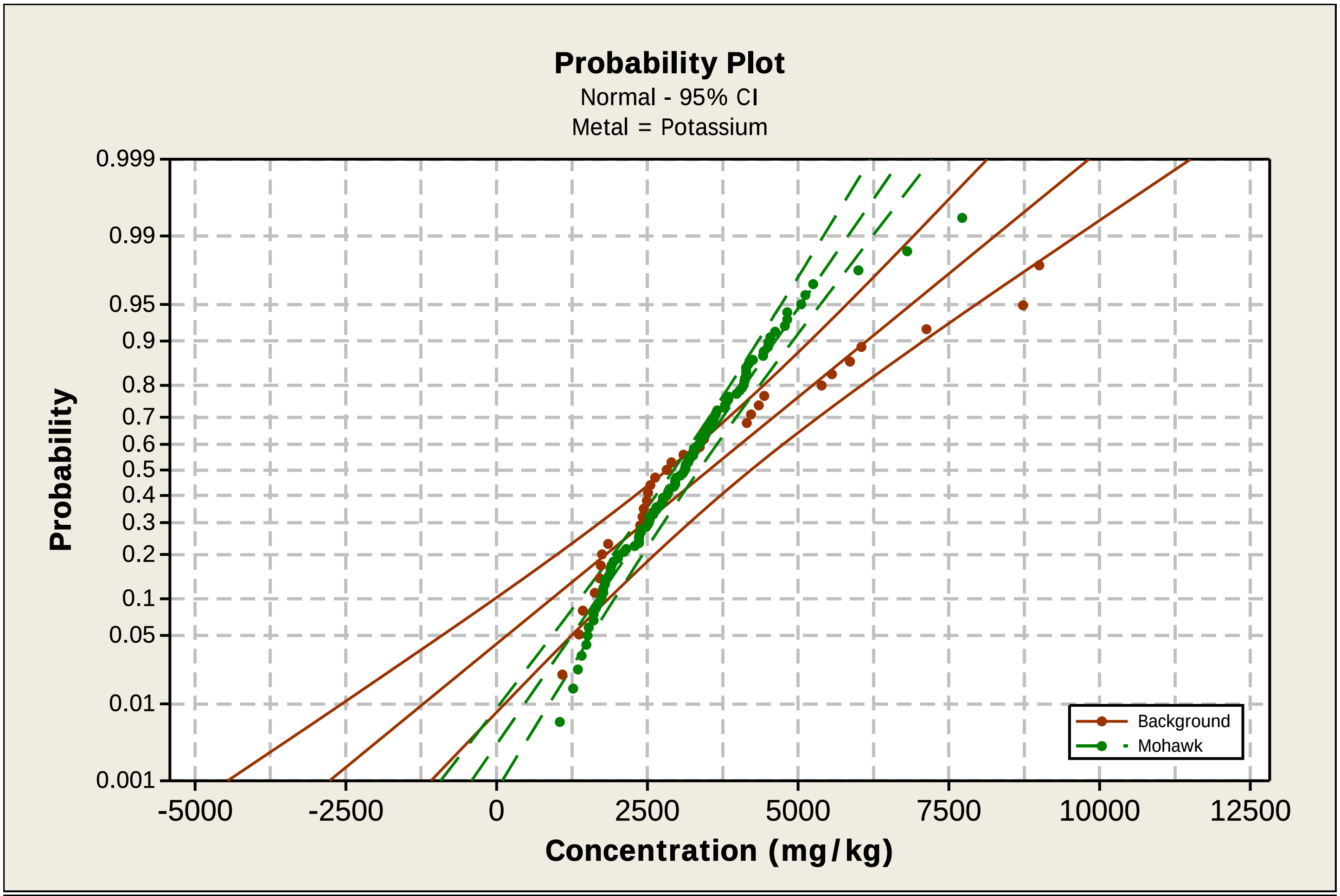
Boxplot
Metal = Palladium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

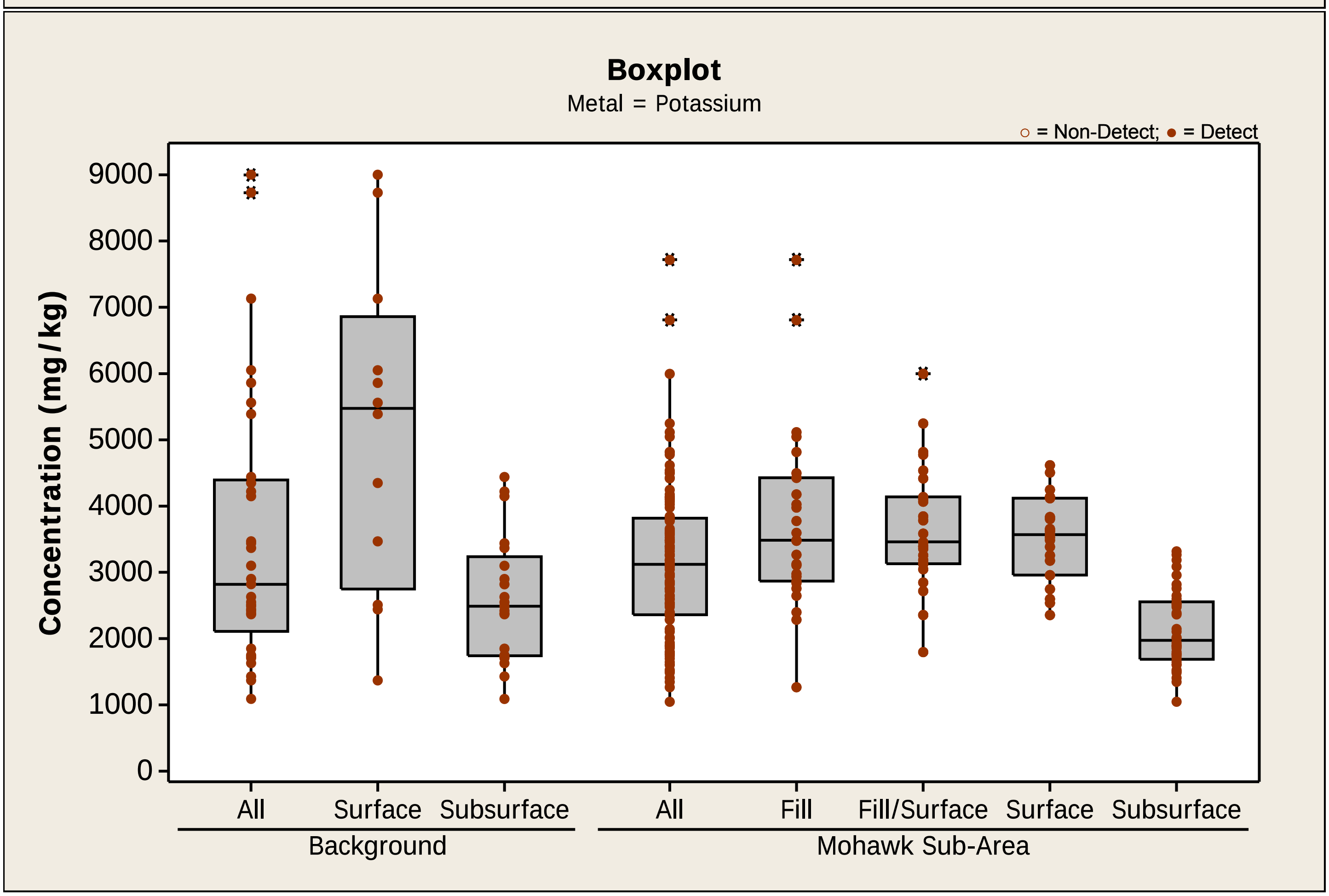

Probability Plot
Normal - 95% CI
Metal = Phosphorus
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
500
1000
1500
2000
Concentration (mg/kg)
Background
Mohawk

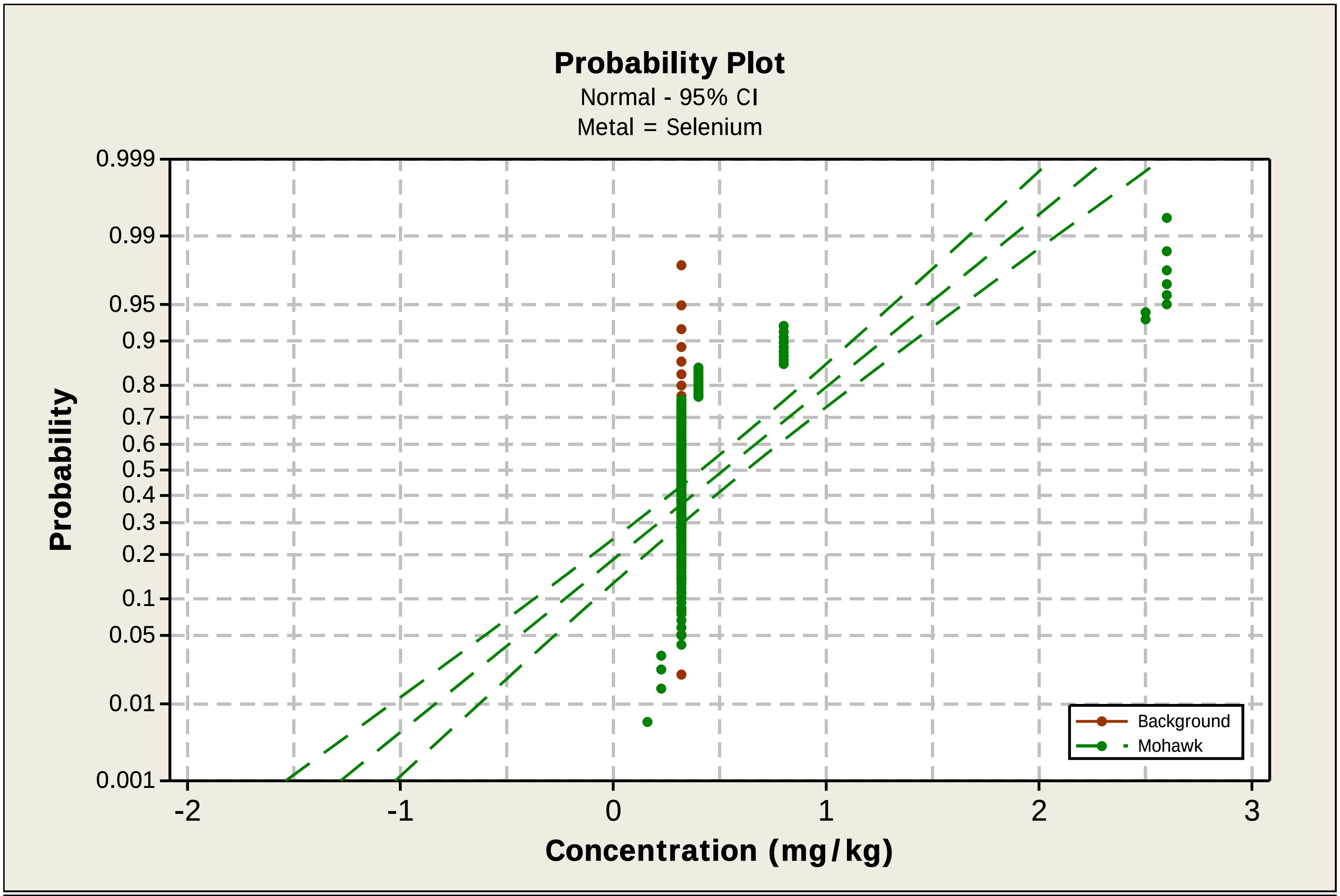

Boxplot
Metal = Phosphorus
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
1800
1600
1400
1200
1000
800
600
400
200
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Platinum
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0.00
0.05
0.10
0.15
Concentration (mg/kg)
Background
Mohawk

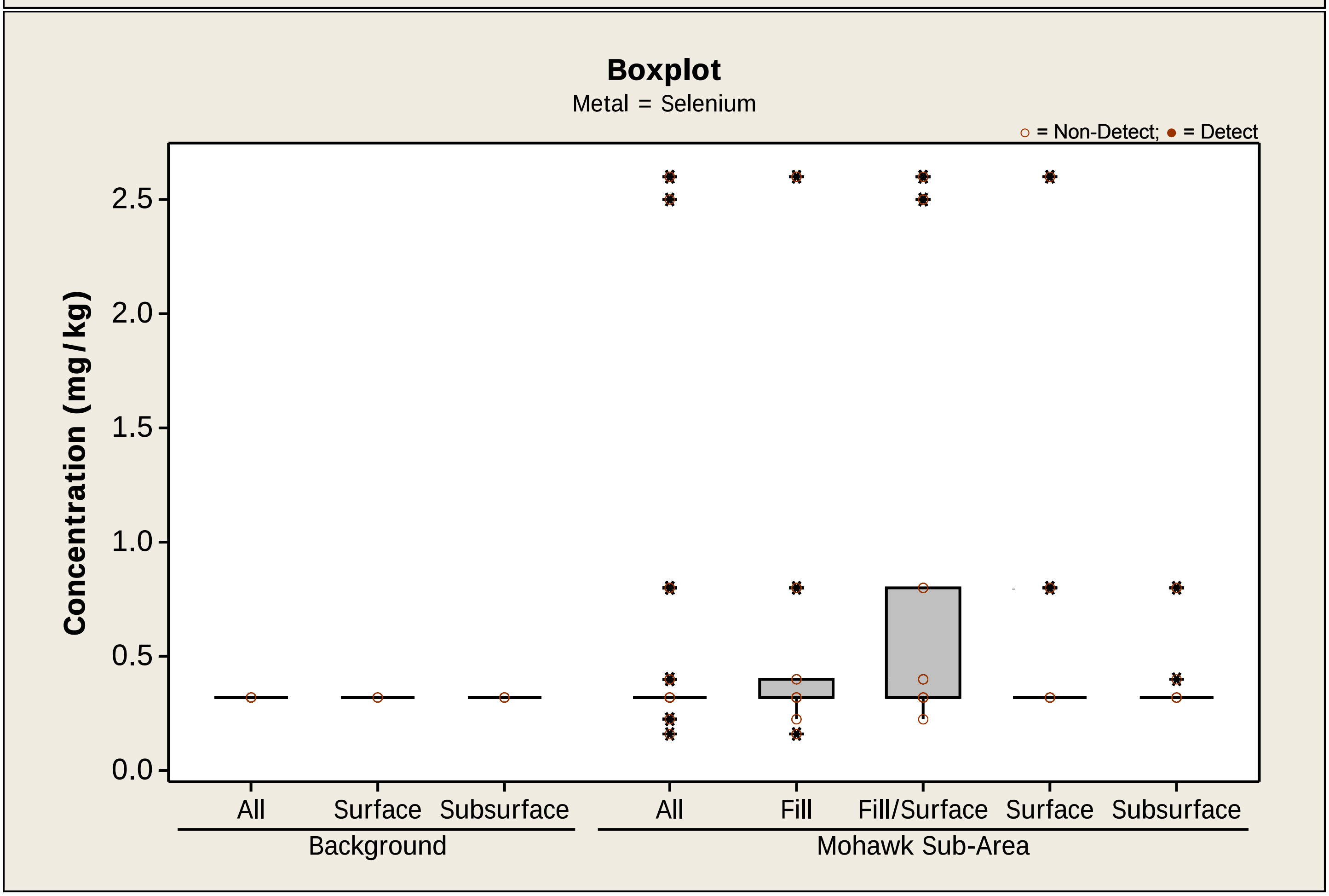

Boxplot
Metal = Platinum
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.12
0.10
0.08
0.06
0.04
0.02
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Potassium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-5000
-2500
0
2500
5000
7500
10000
12500
Concentration (mg/kg)
Background
Mohawk

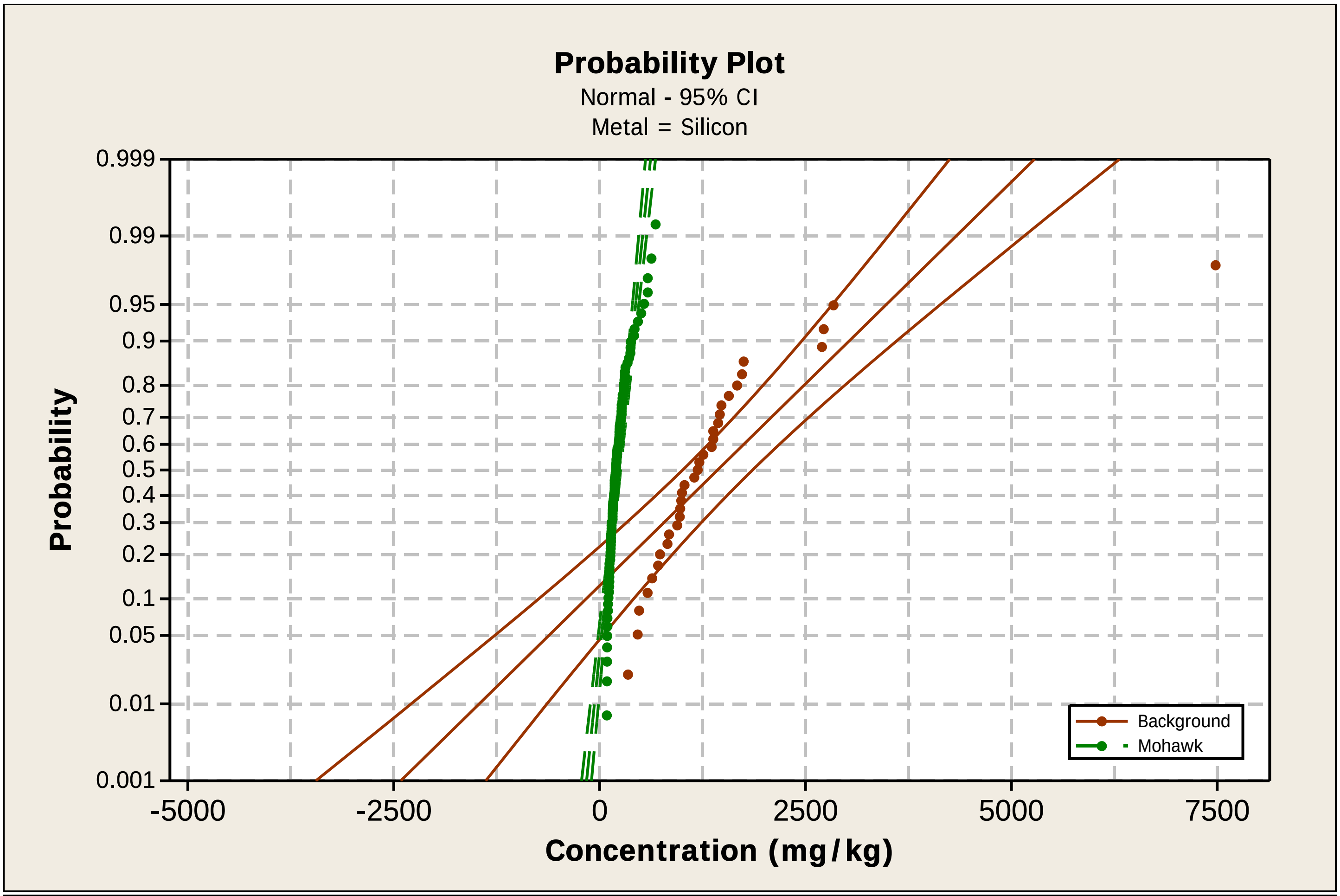

Boxplot
Metal = Potassium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



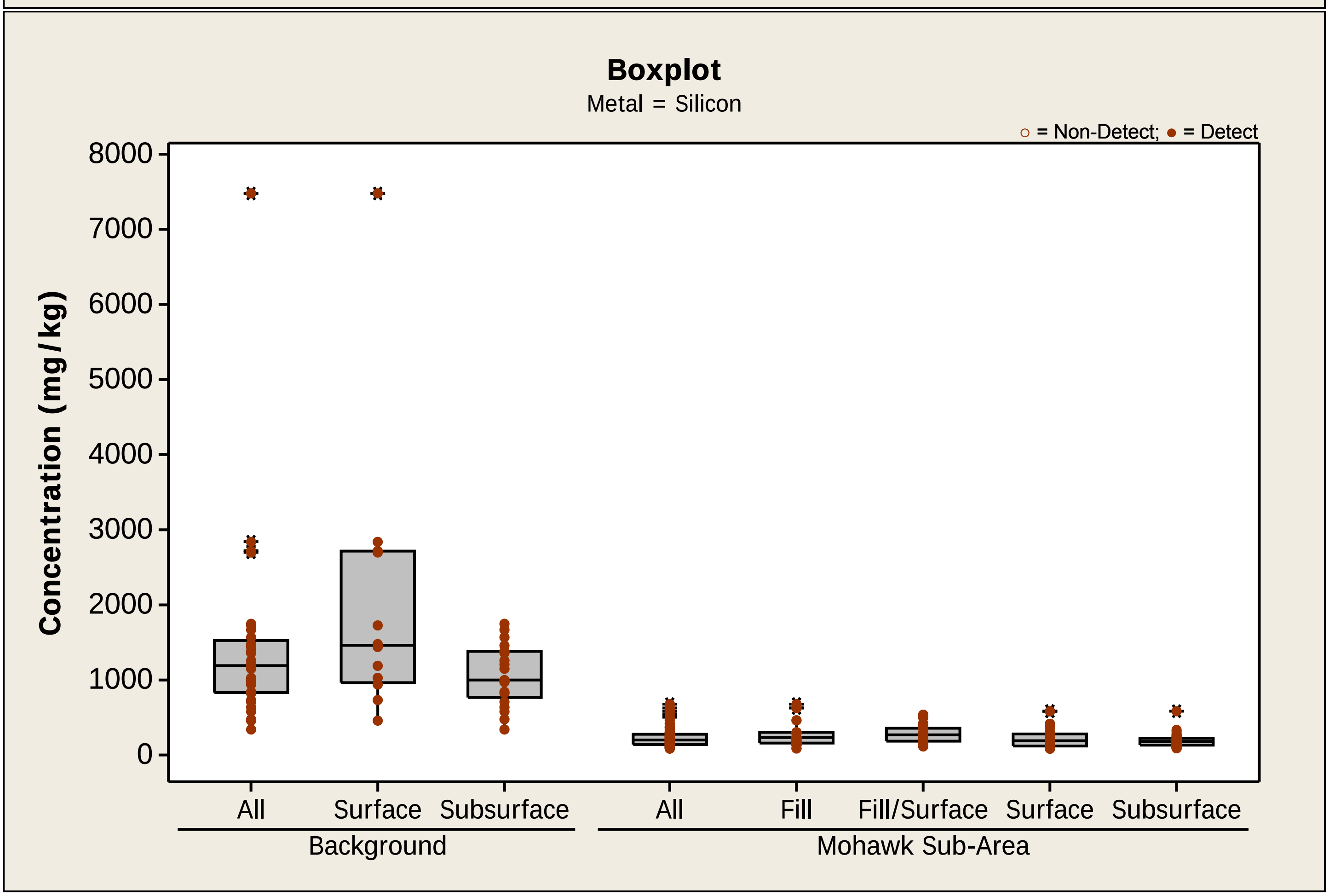
Probability Plot
Normal - 95% CI
Metal = Selenium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-2
-1
0
1
2
3
Concentration (mg/kg)
Background
Mohawk



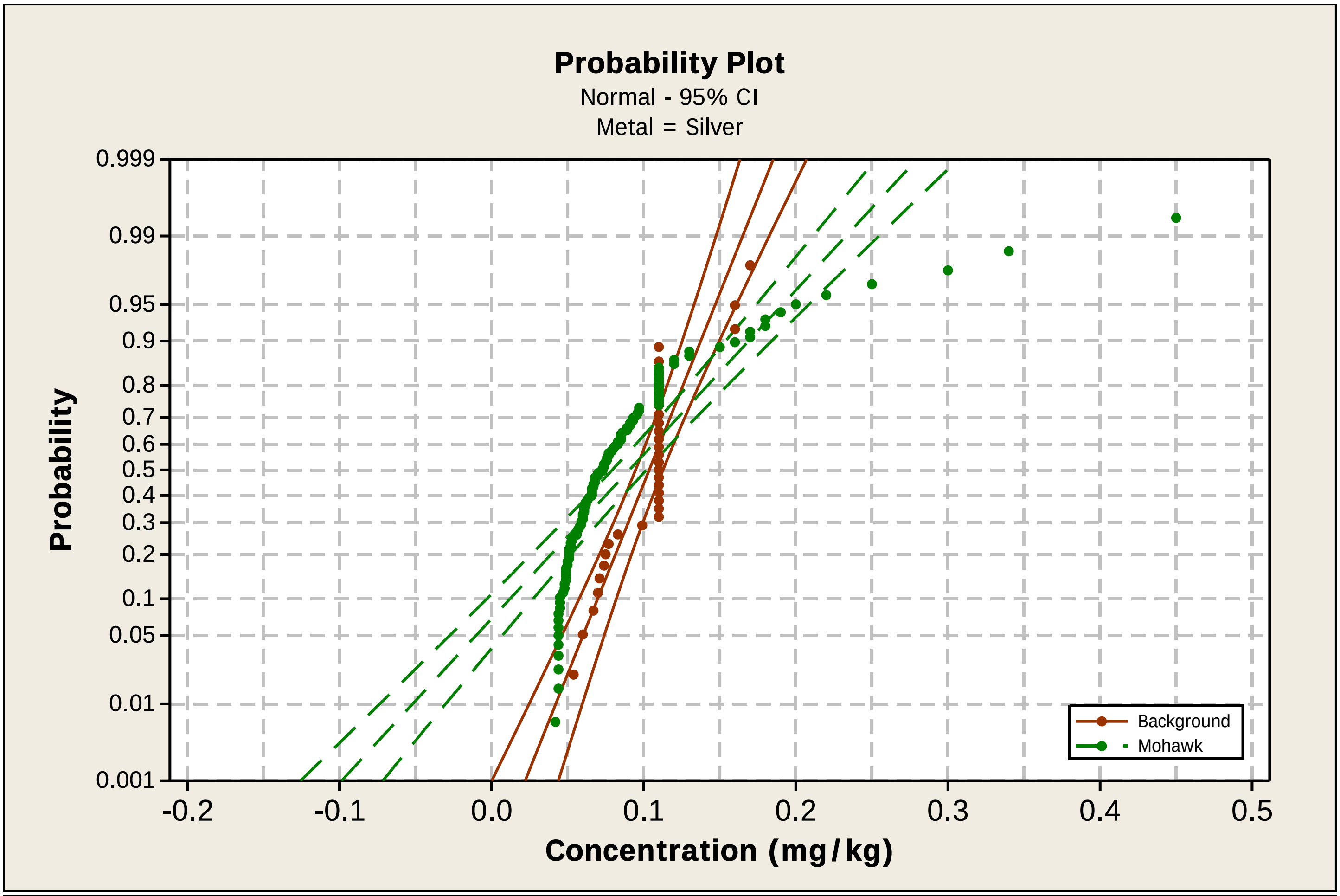
Boxplot
Metal = Selenium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
2.5
2.0
1.5
1.0
0.5
0.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

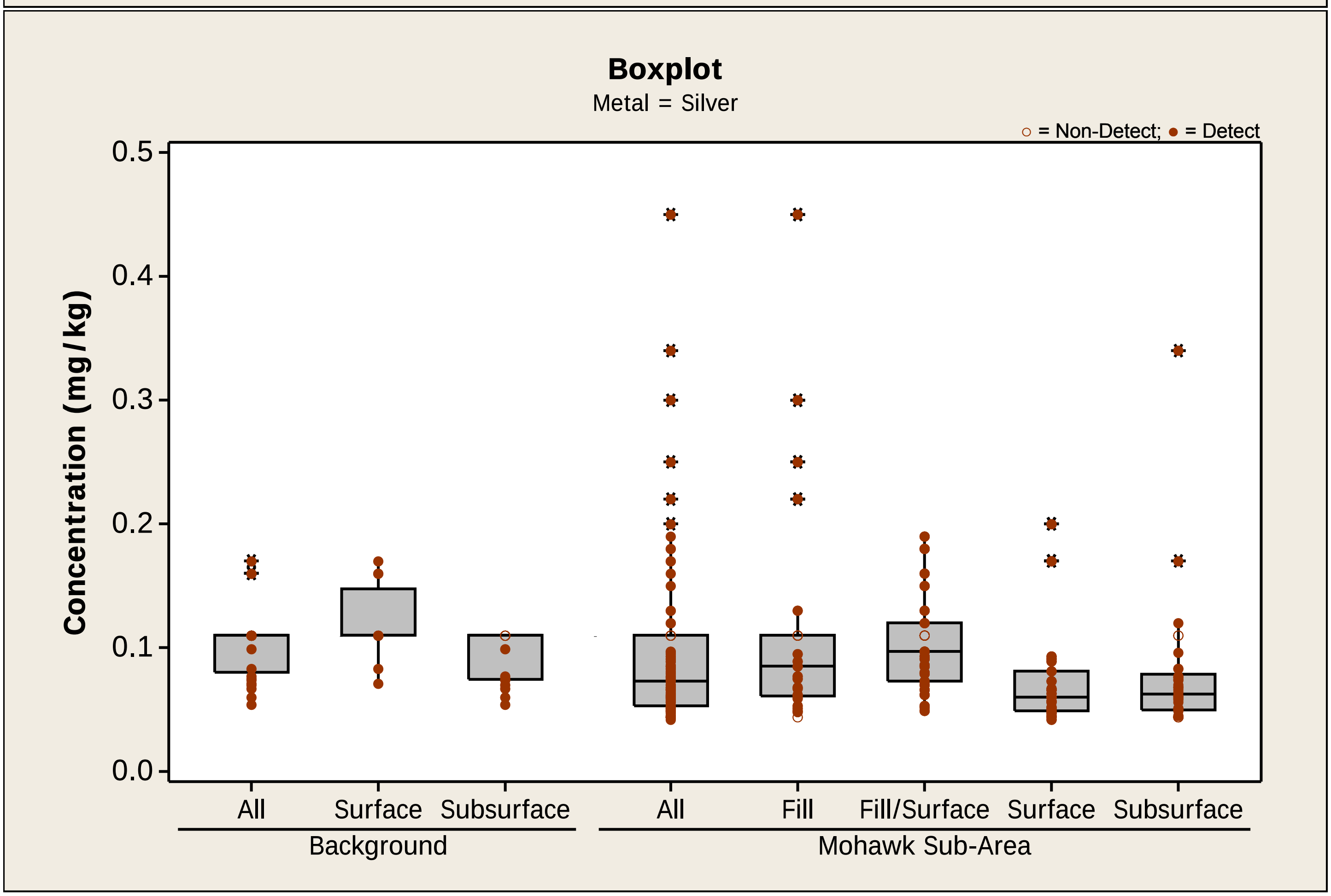


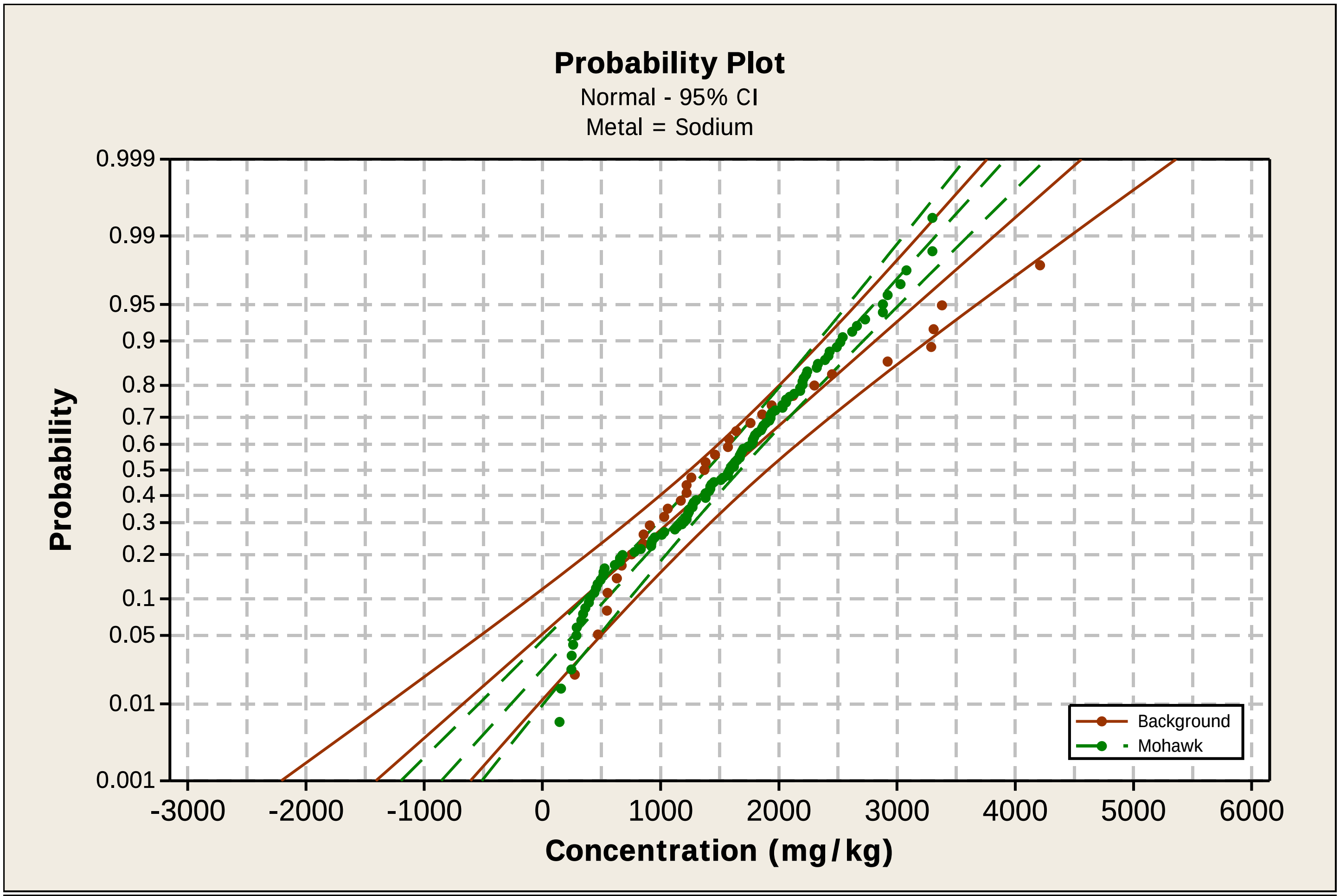
Probability Plot
Normal - 95% CI
Metal = Silicon
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-5000
-2500
0
2500
5000
7500
Concentration (mg/kg)
Background
Mohawk



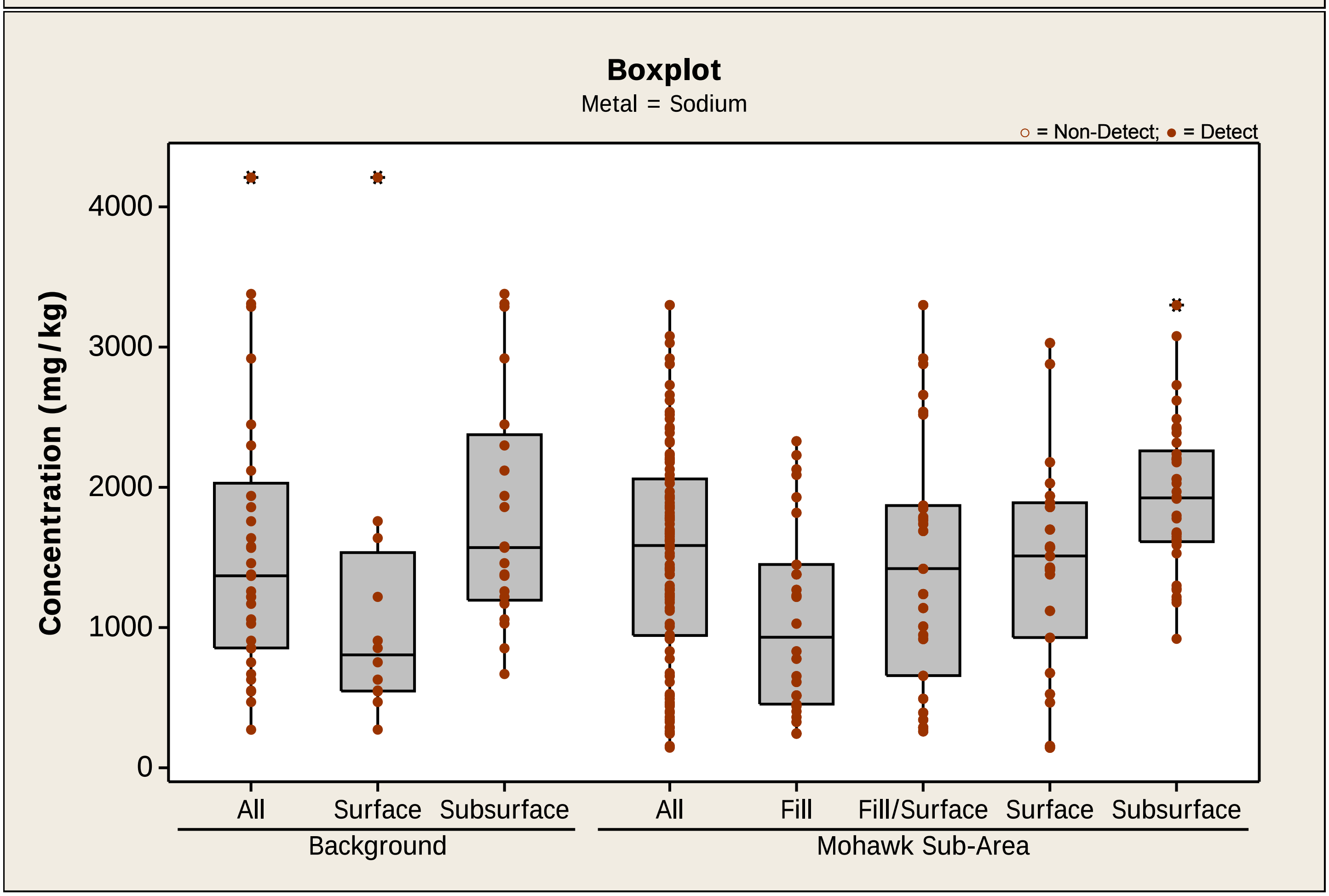
Boxplot
Metal = Silicon
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
8000
7000
6000
5000
4000
3000
2000
1000
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Silver
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-0.2
-0.1
0.0
0.1
0.2
0.3
0.4
0.5
Concentration (mg/kg)
Background
Mohawk

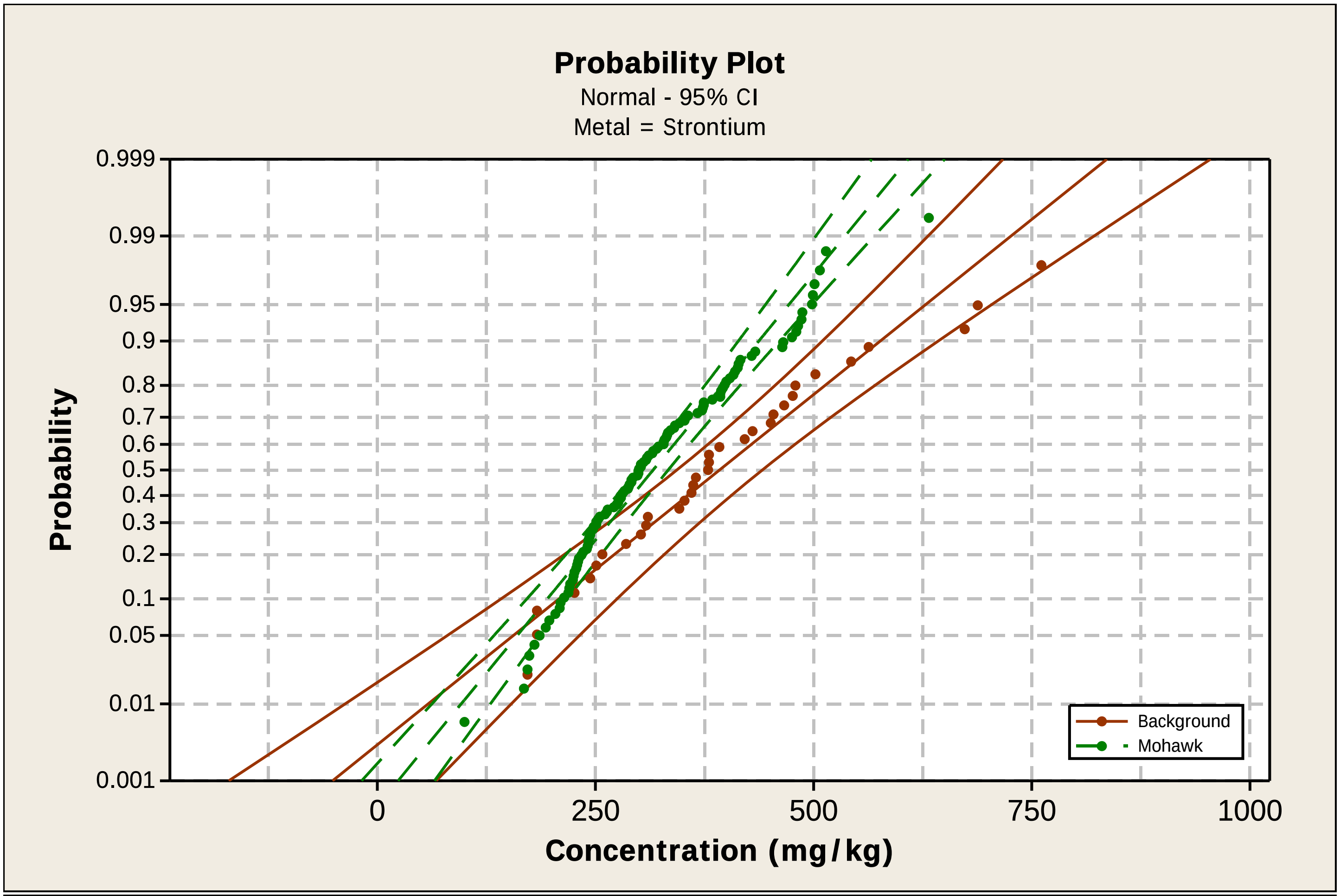

Boxplot
Metal = Silver
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0.5
0.4
0.3
0.2
0.1
0.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

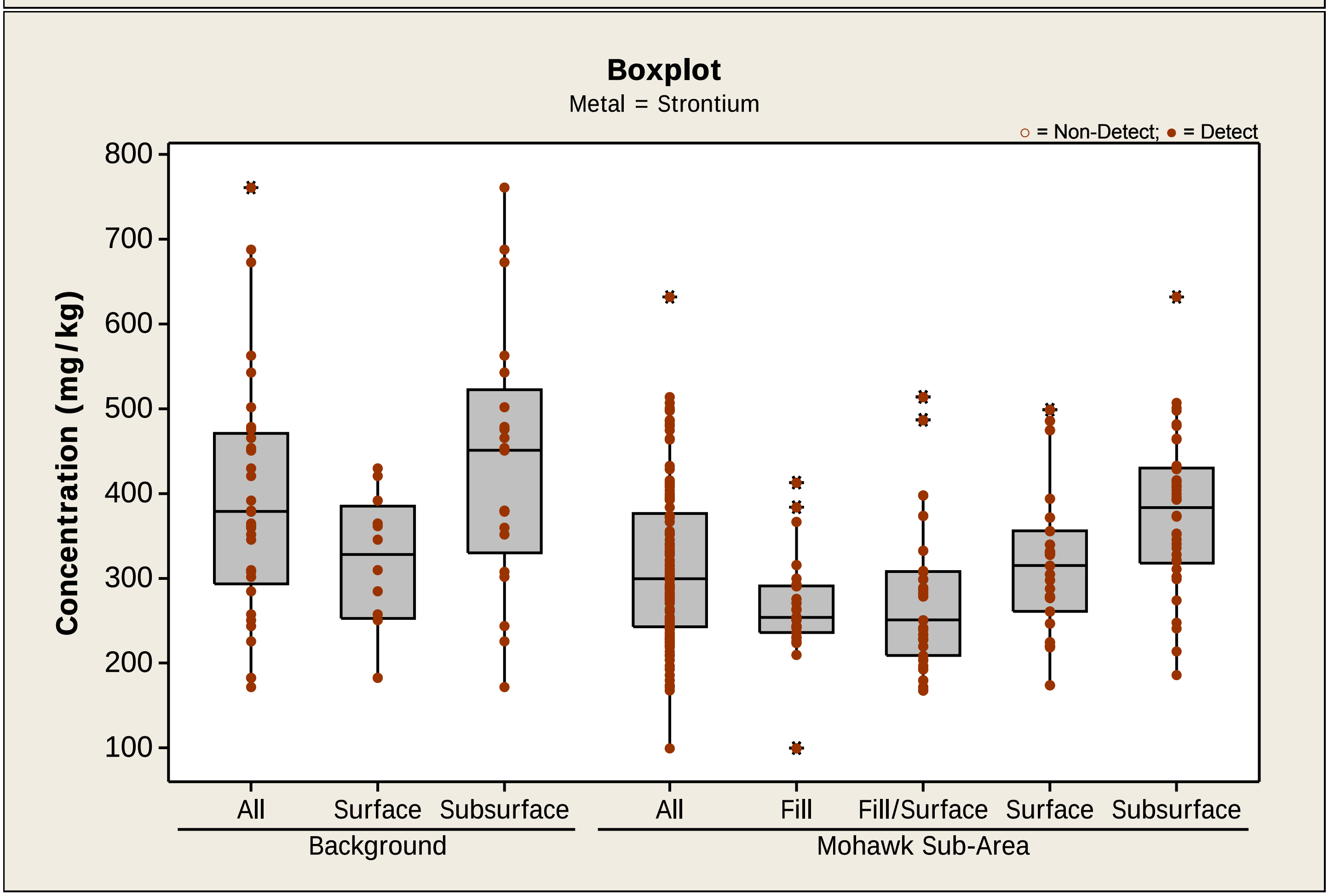


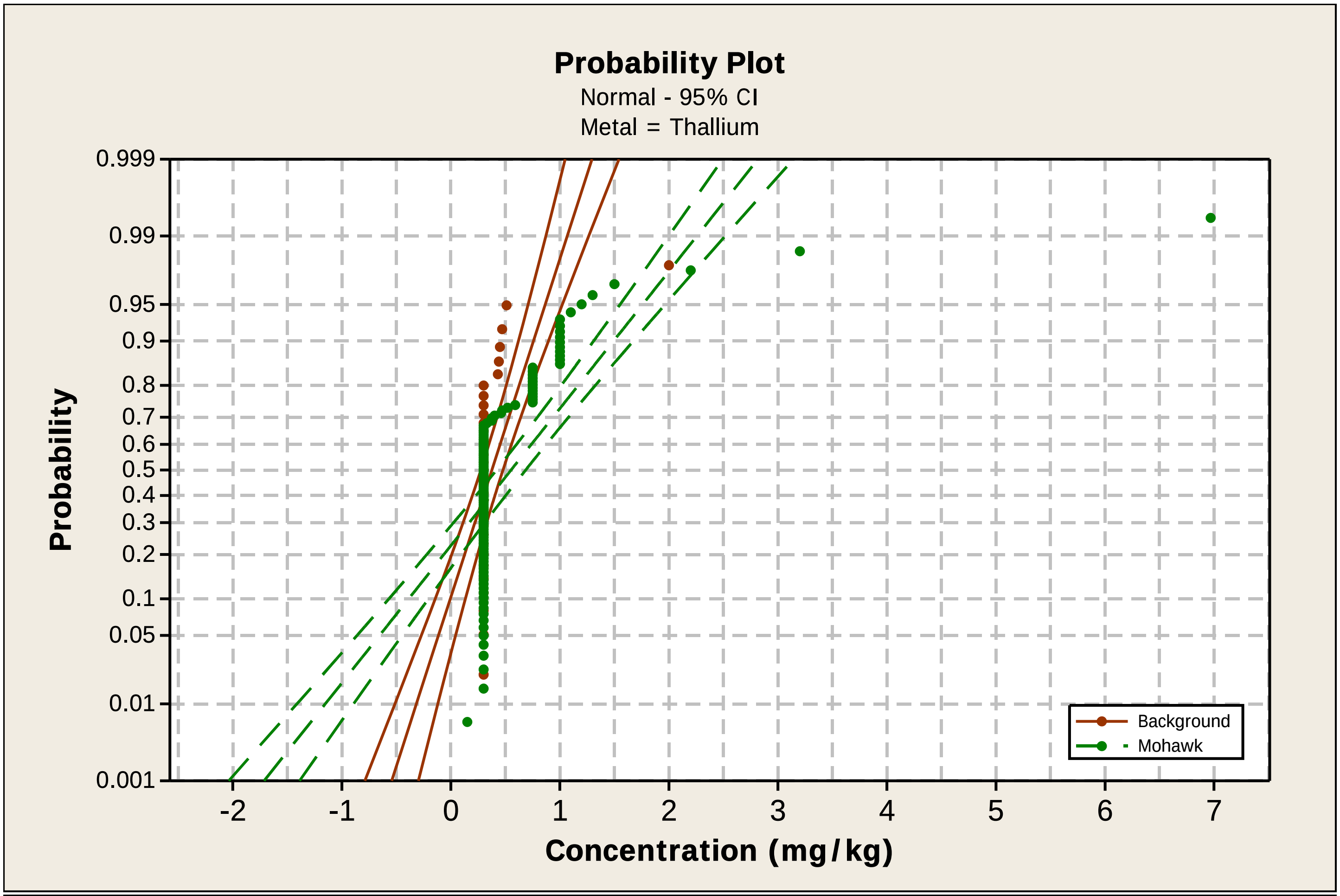
Probability Plot
Normal - 95% CI
Metal = Sodium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-3000
-2000
-1000
0
1000
2000
3000
4000
5000
6000
Concentration (mg/kg)
Background
Mohawk



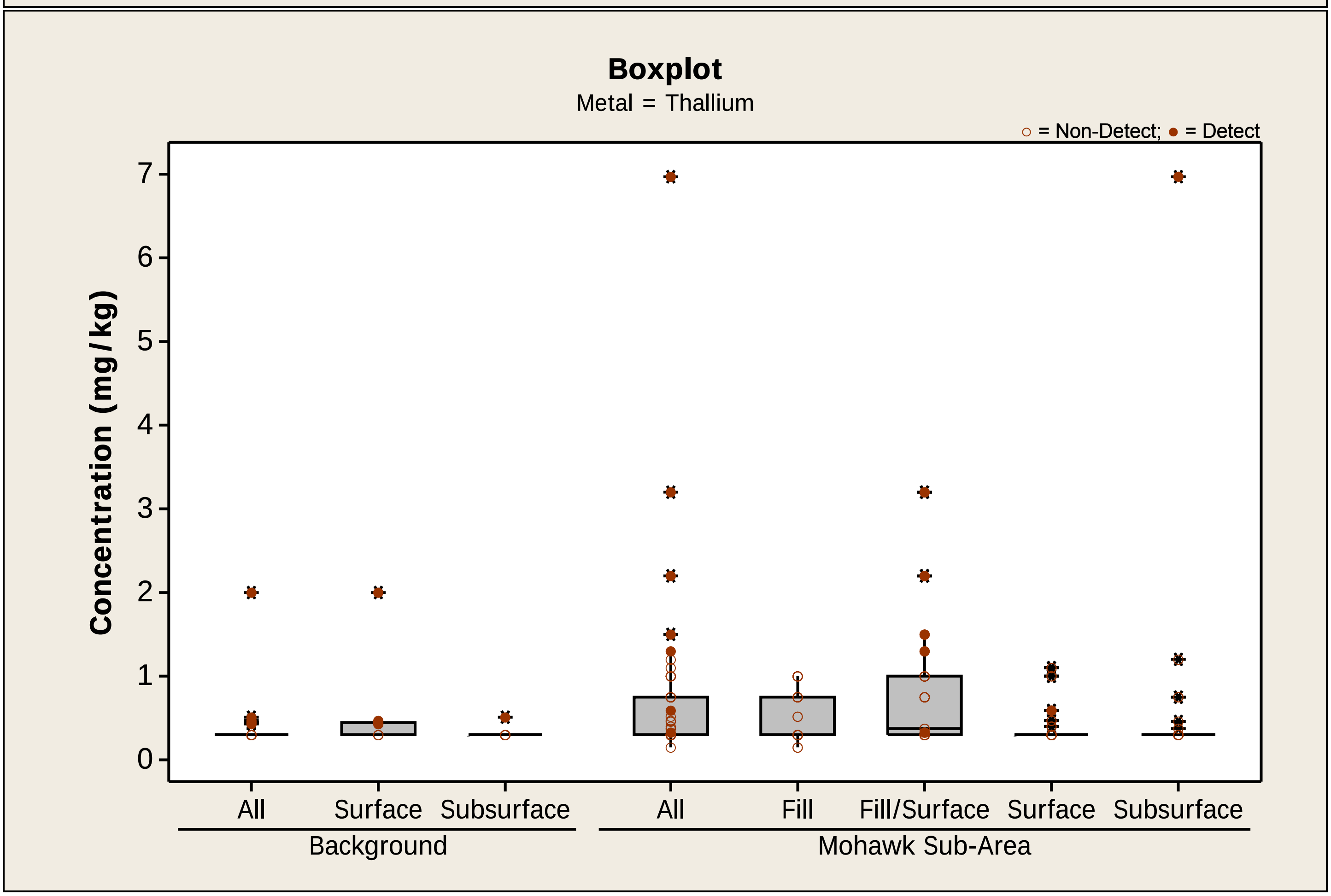
Boxplot
Metal = Sodium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
4000
3000
2000
1000
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Strontium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
250
500
750
1000
Concentration (mg/kg)
Background
Mohawk

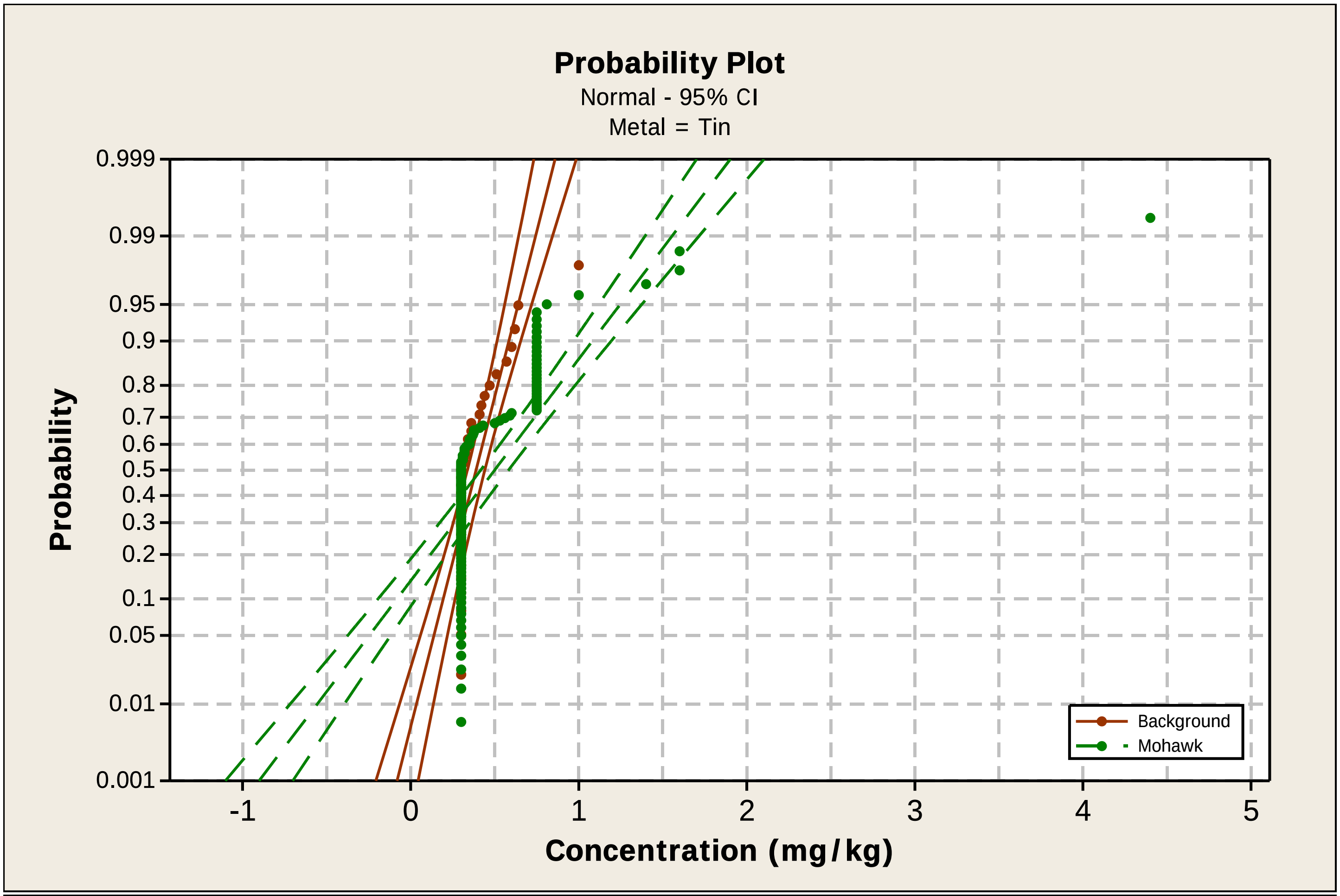

Boxplot
Metal = Strontium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
800
700
600
500
400
300
200
100
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



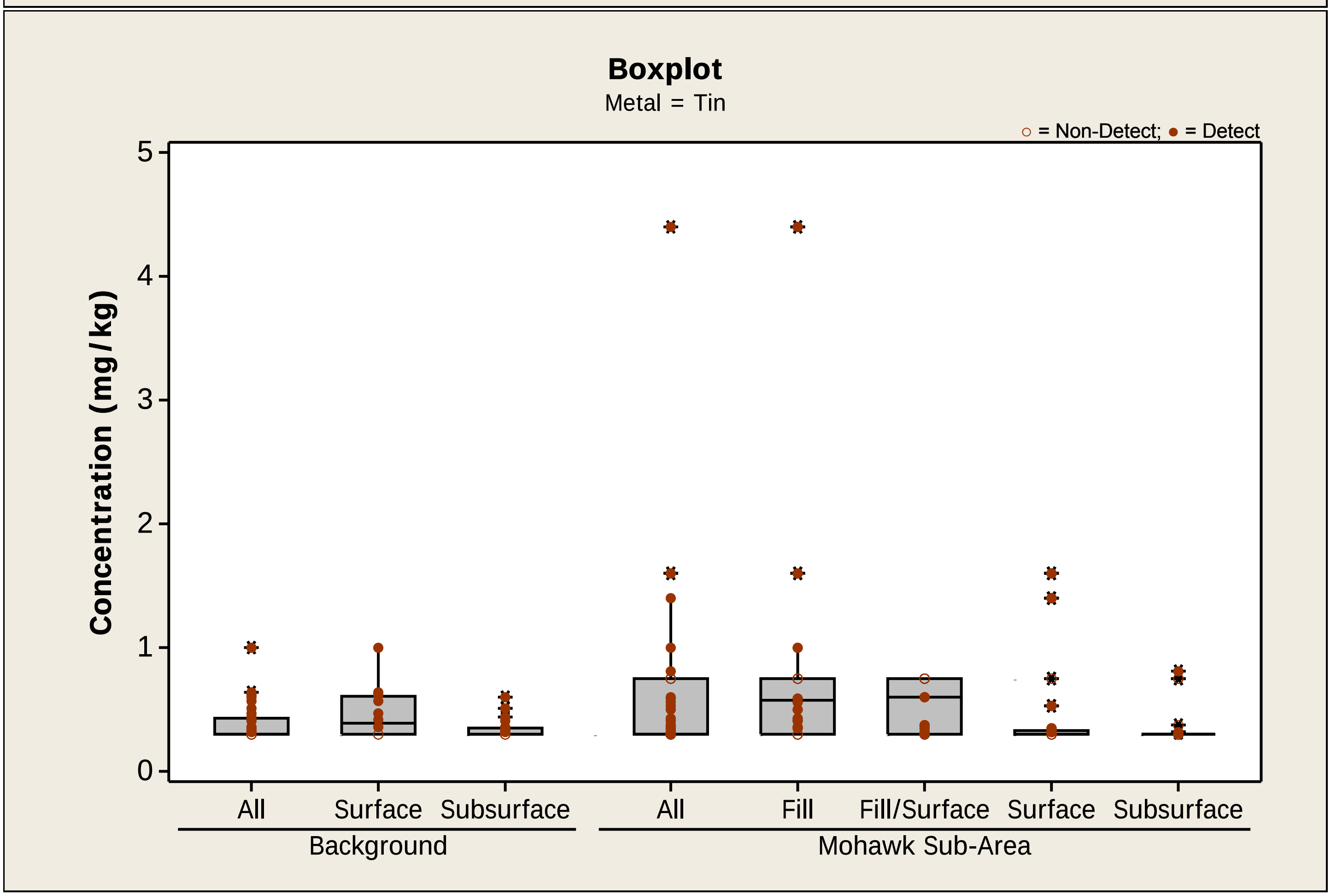
Probability Plot
Normal - 95% CI
Metal = Thallium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-2
-1
0
1
2
3
4
5
6
7
Concentration (mg/kg)
Background
Mohawk



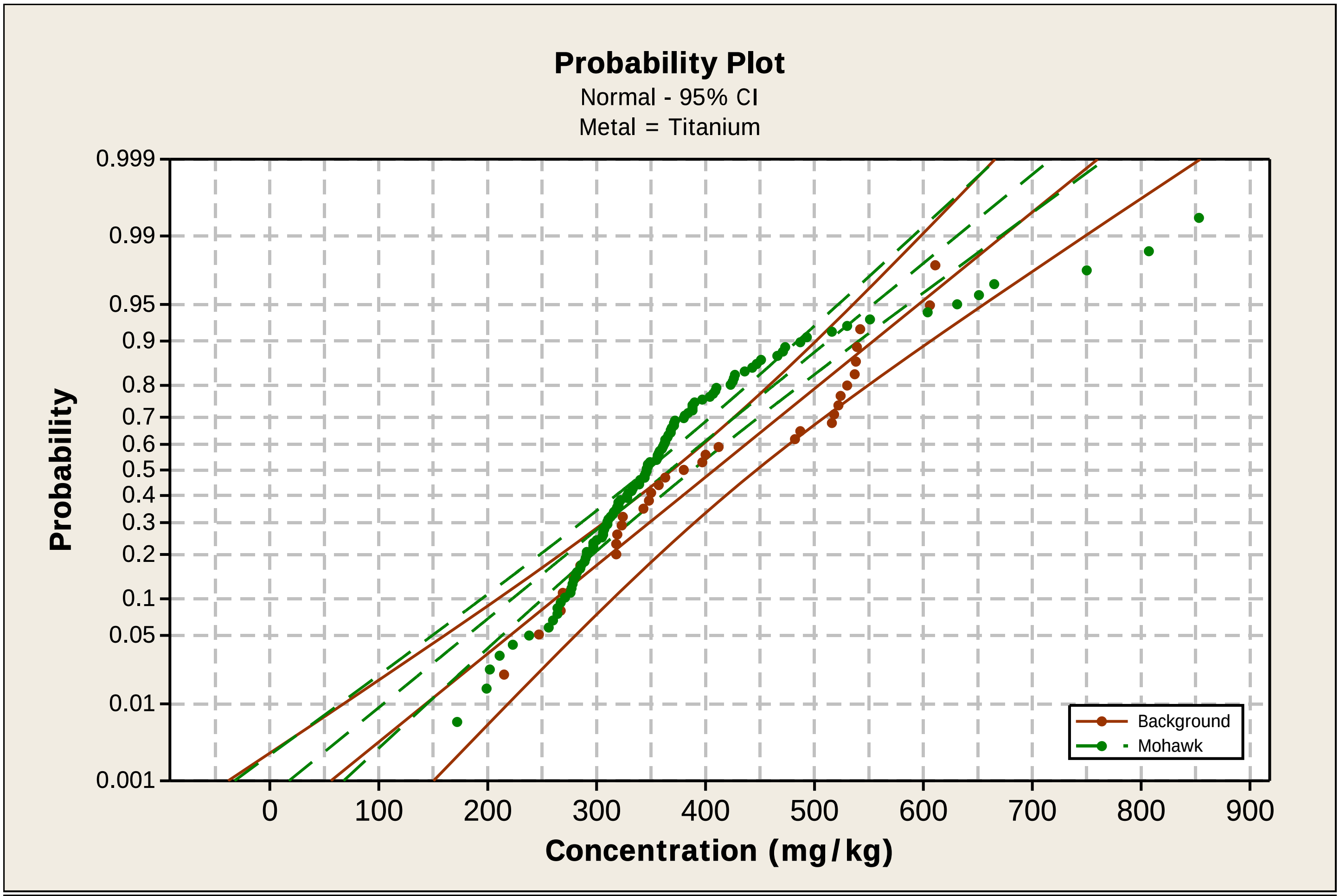
Boxplot
Metal = Thallium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
7
6
5
4
3
2
1
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

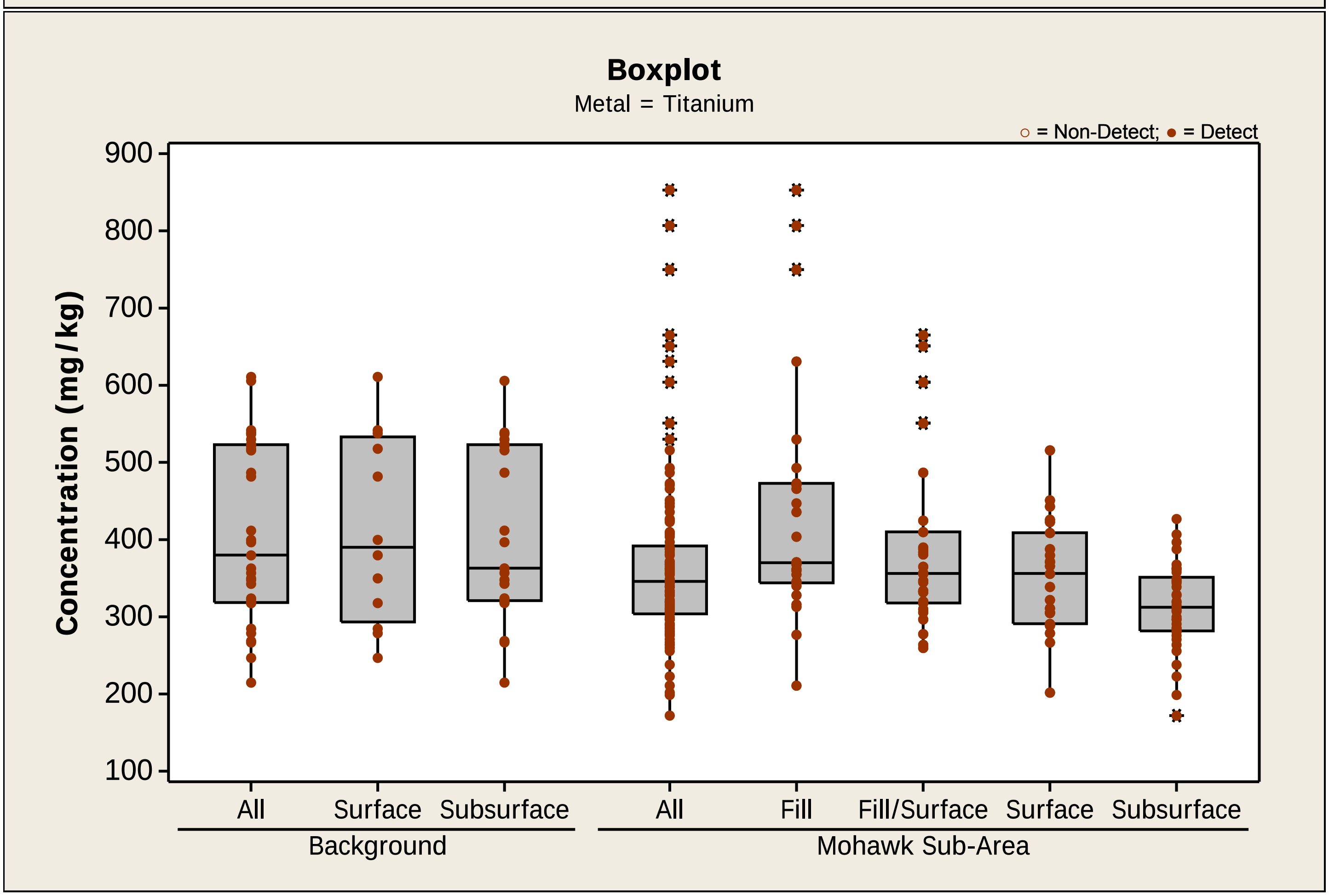


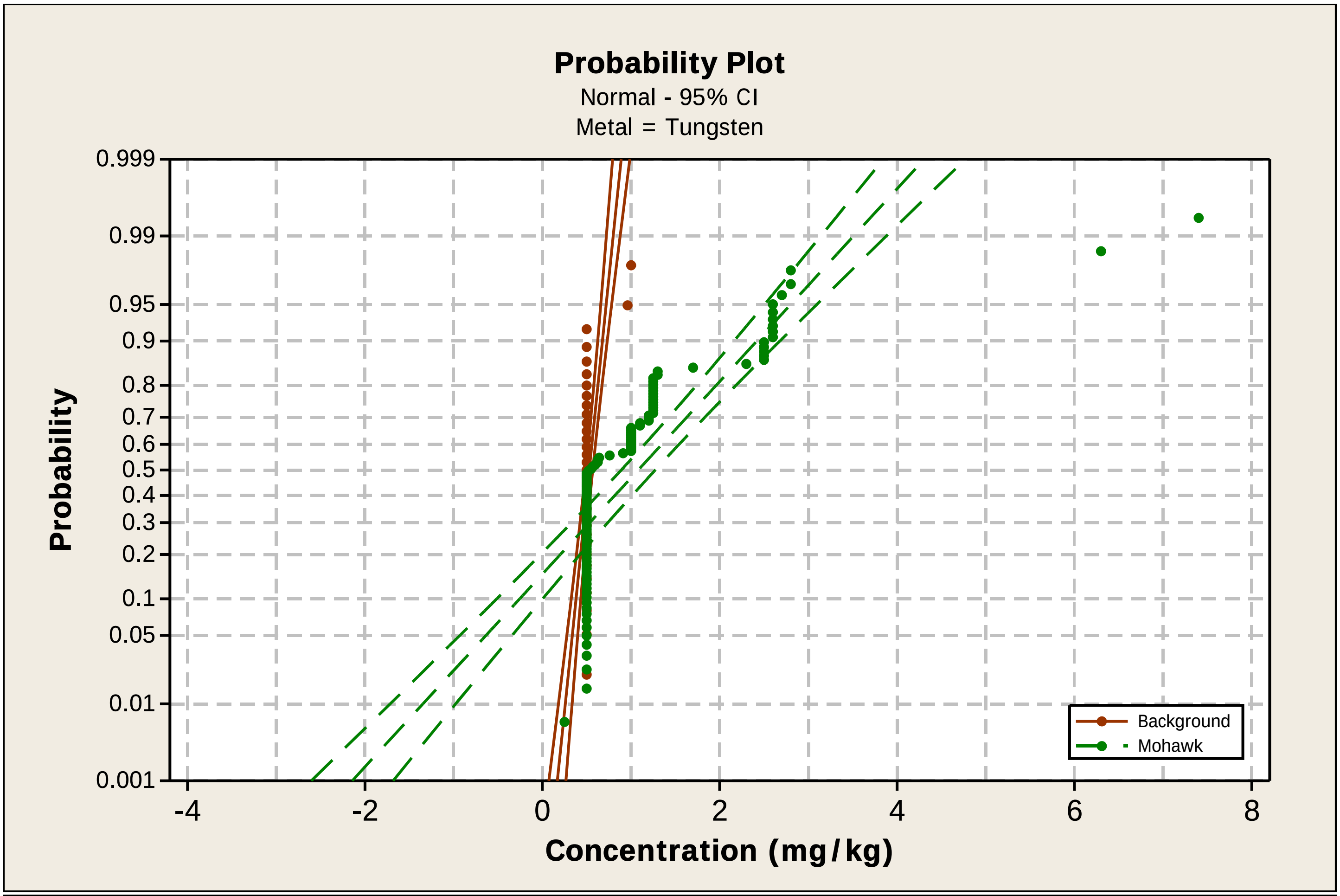
Probability Plot
Normal - 95% CI
Metal = Tin
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-1
0
1
2
3
4
5
Concentration (mg/kg)
Background
Mohawk

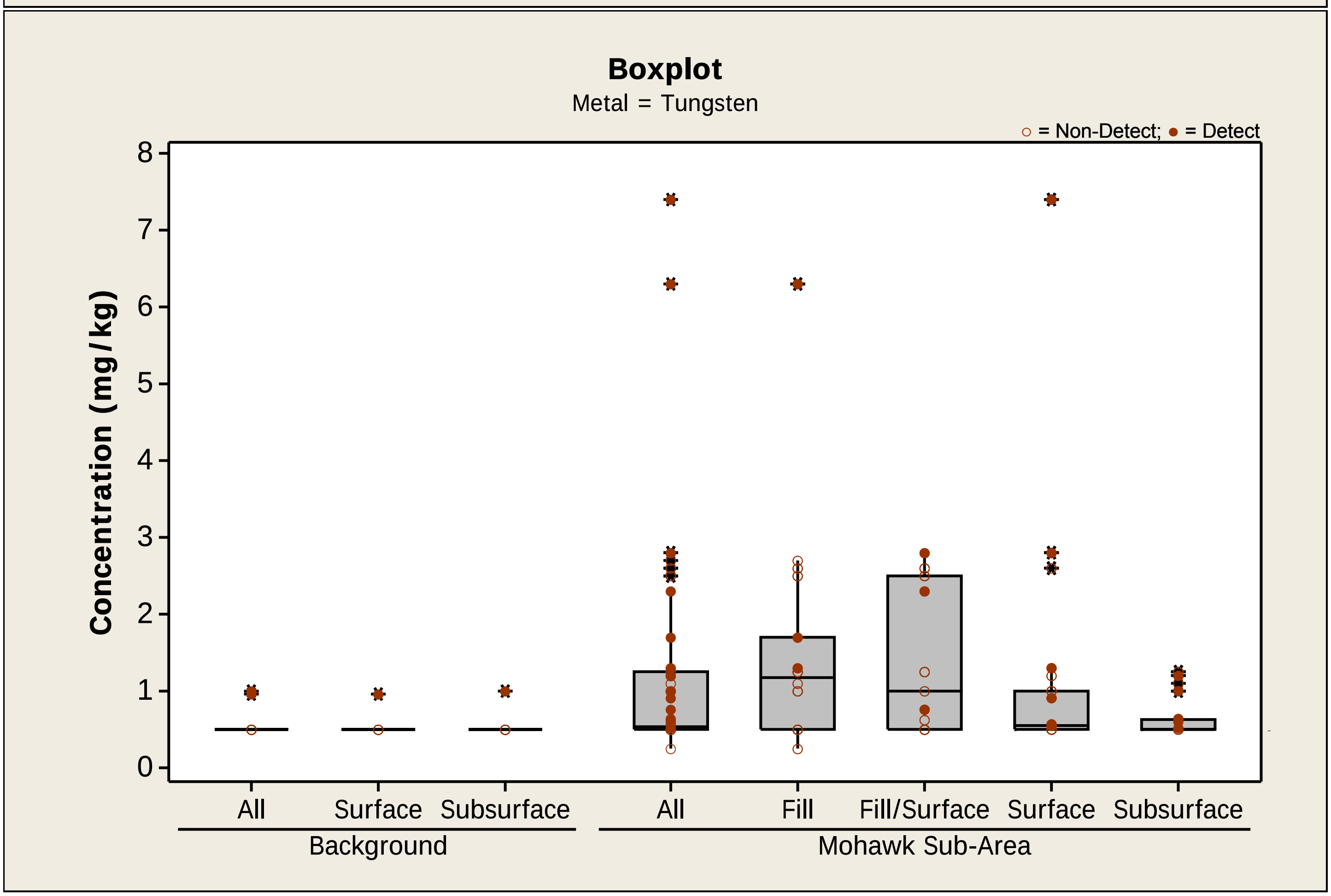


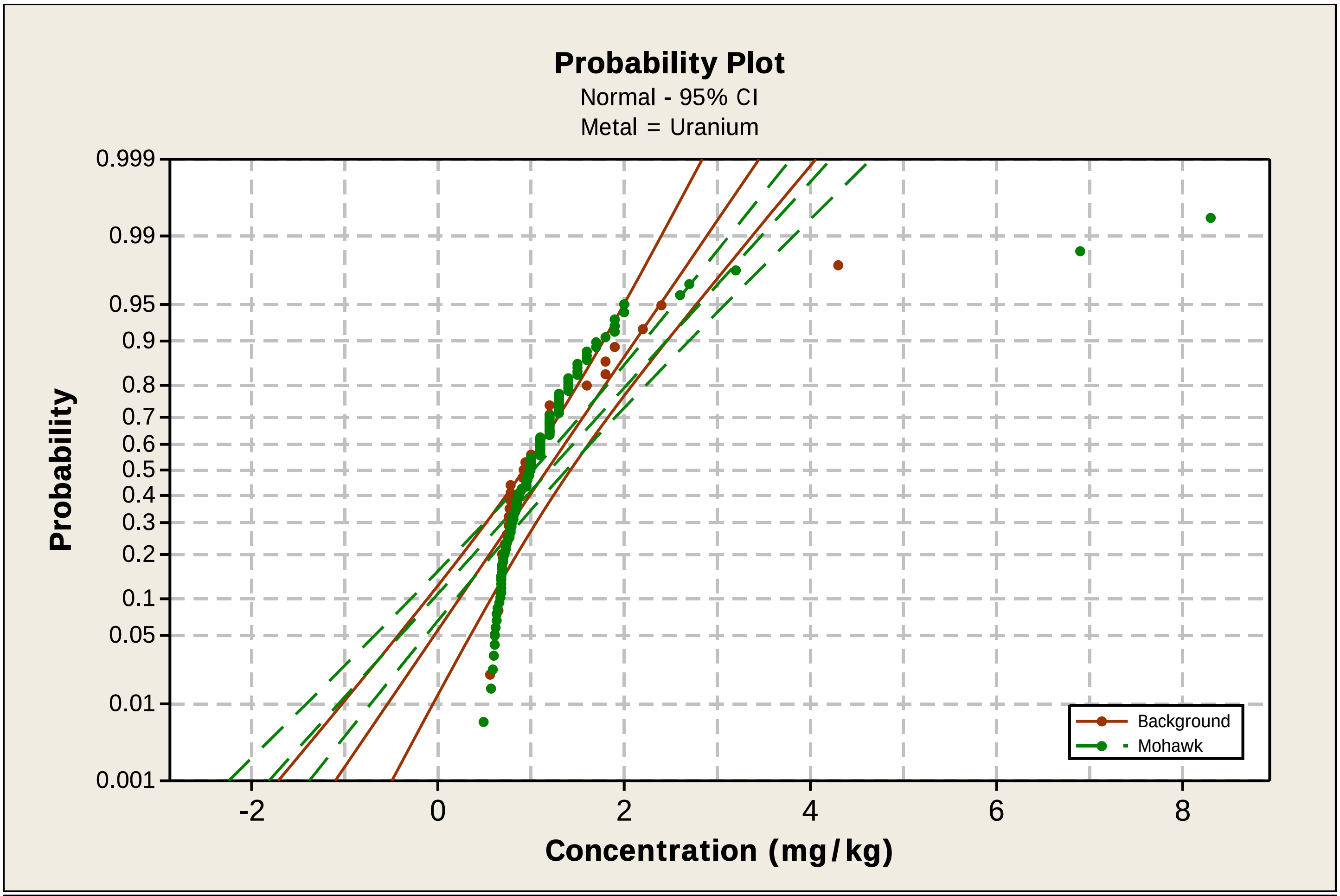
Boxplot
Metal = Tin
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
5
4
3
2
1
0
All
Surface
Subsurface
Background
All
Fill
Fill/Surface
Surface
Subsurface
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Titanium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
100
200
300
400
500
600
700
800
900
Concentration (mg/kg)
Background
Mohawk

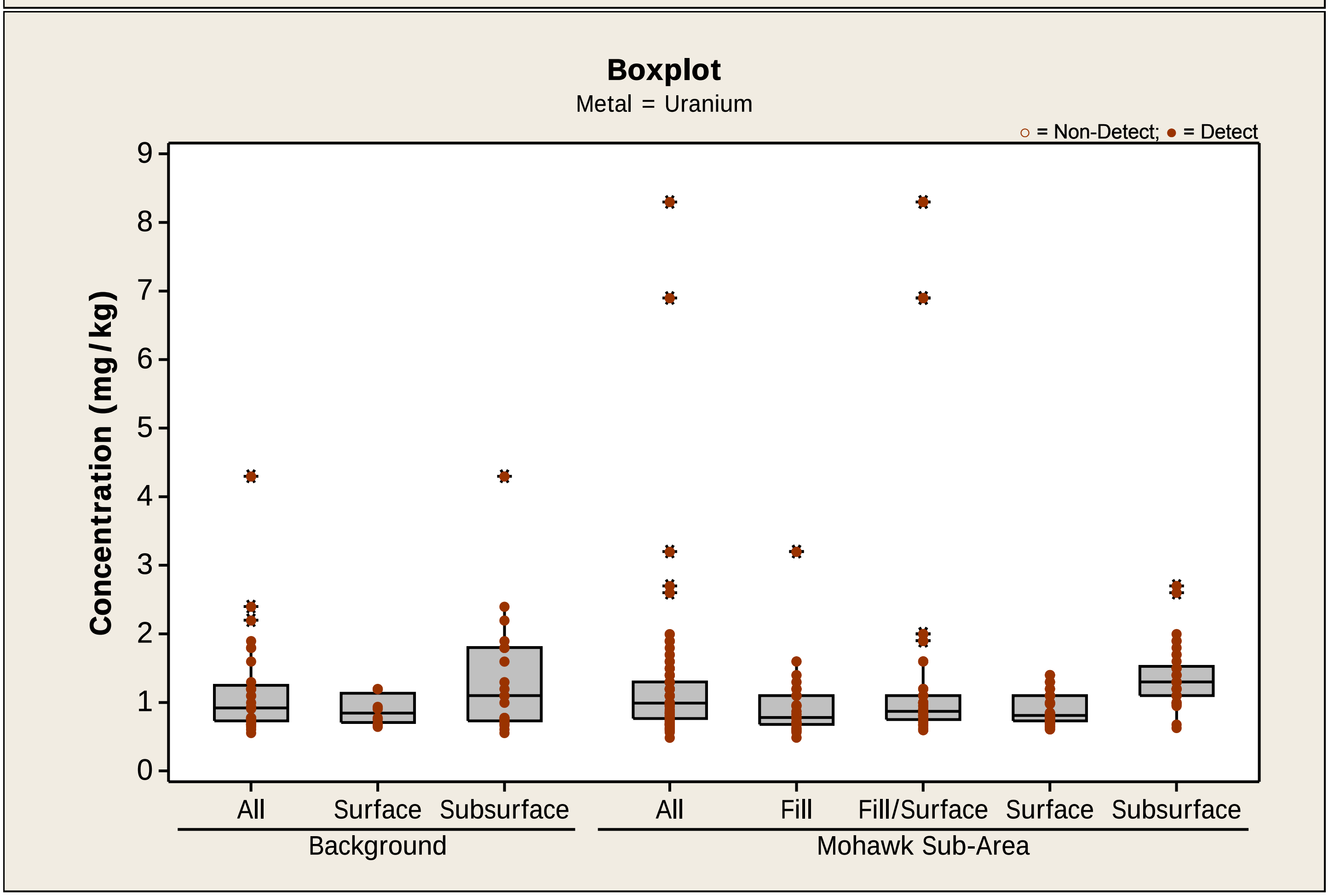

Boxplot
Metal = Titanium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
900
800
700
600
500
400
300
200
100
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Metal = Tungsten
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-4
-2
0
2
4
6
8
Concentration (mg/kg)
Background
Mohawk

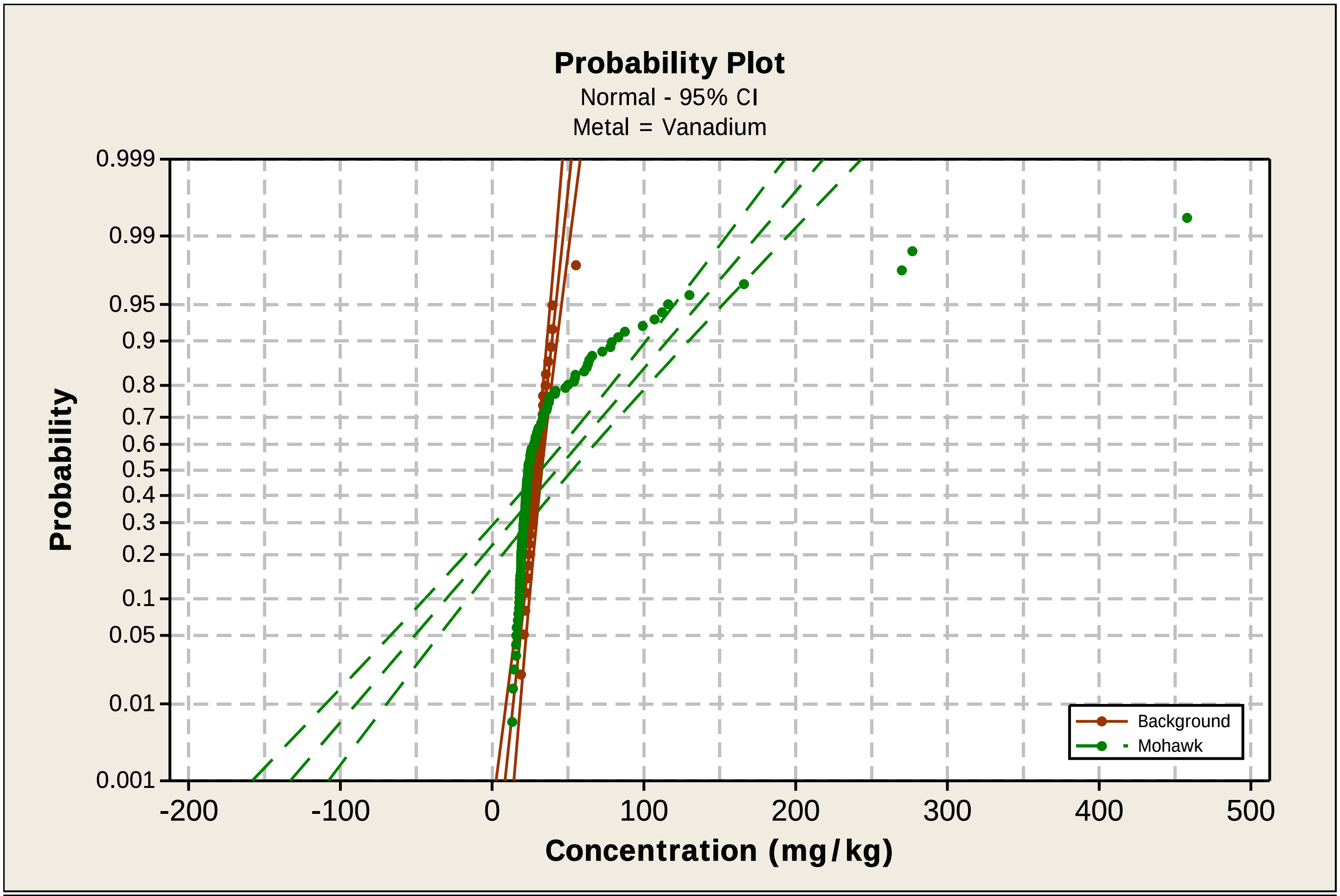

Boxplot
Metal = Tungsten
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
8
7
6
5
4
3
2
1
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



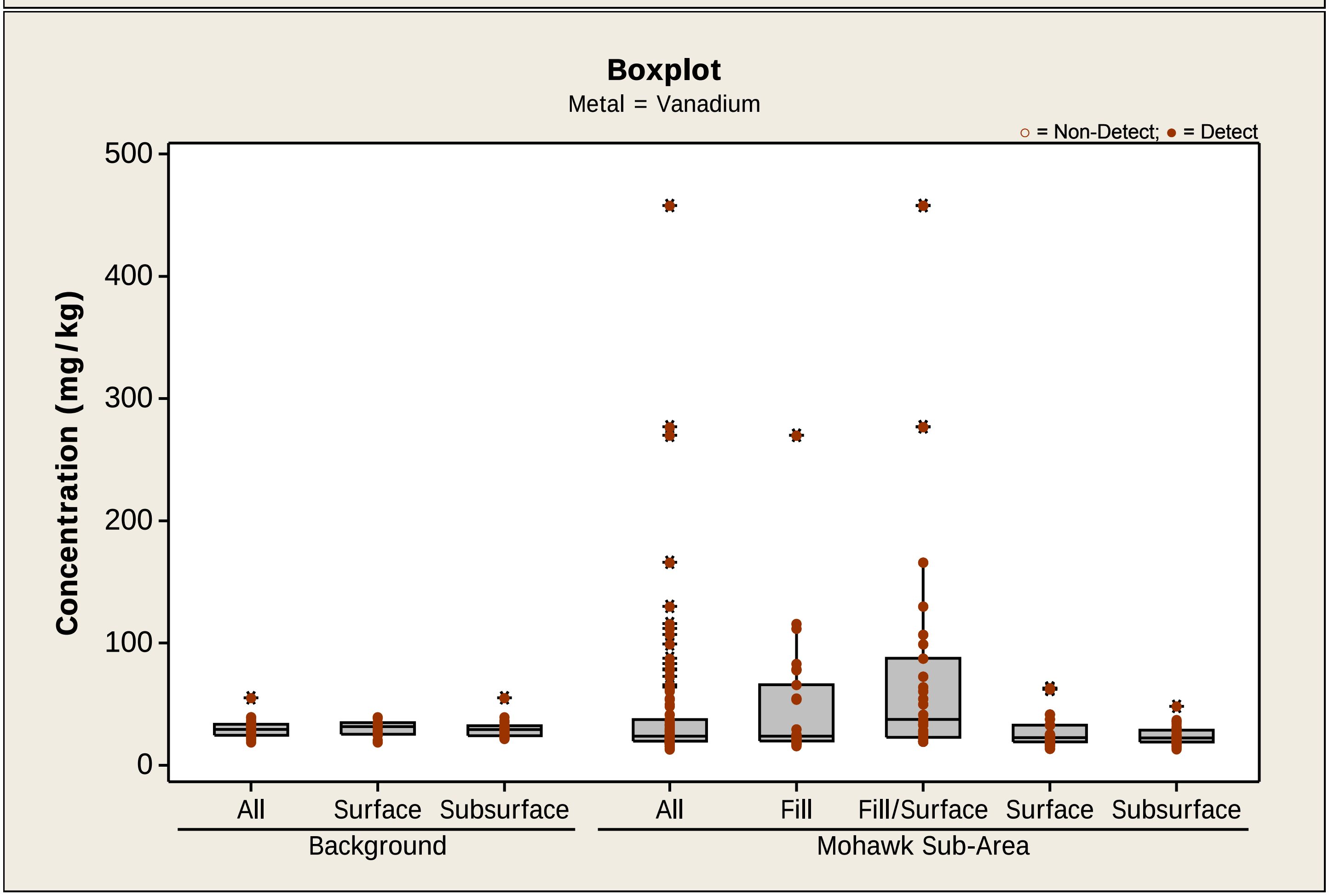
Probability Plot
Normal - 95% CI
Metal = Uranium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-2
0
2
4
6
8
Concentration (mg/kg)
Background
Mohawk



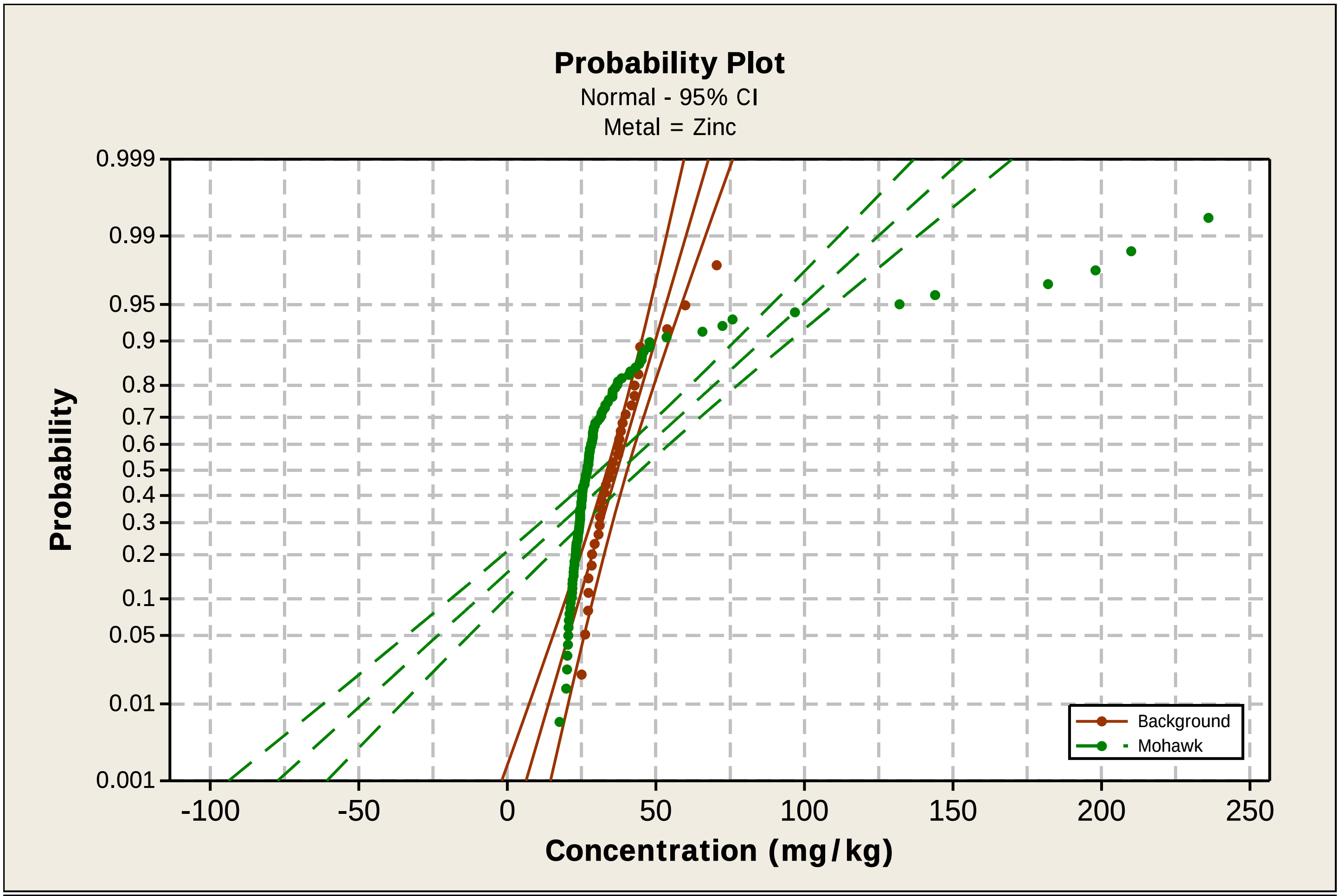
Boxplot
Metal = Uranium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
0
1
2
3
4
5
6
7
8
9
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



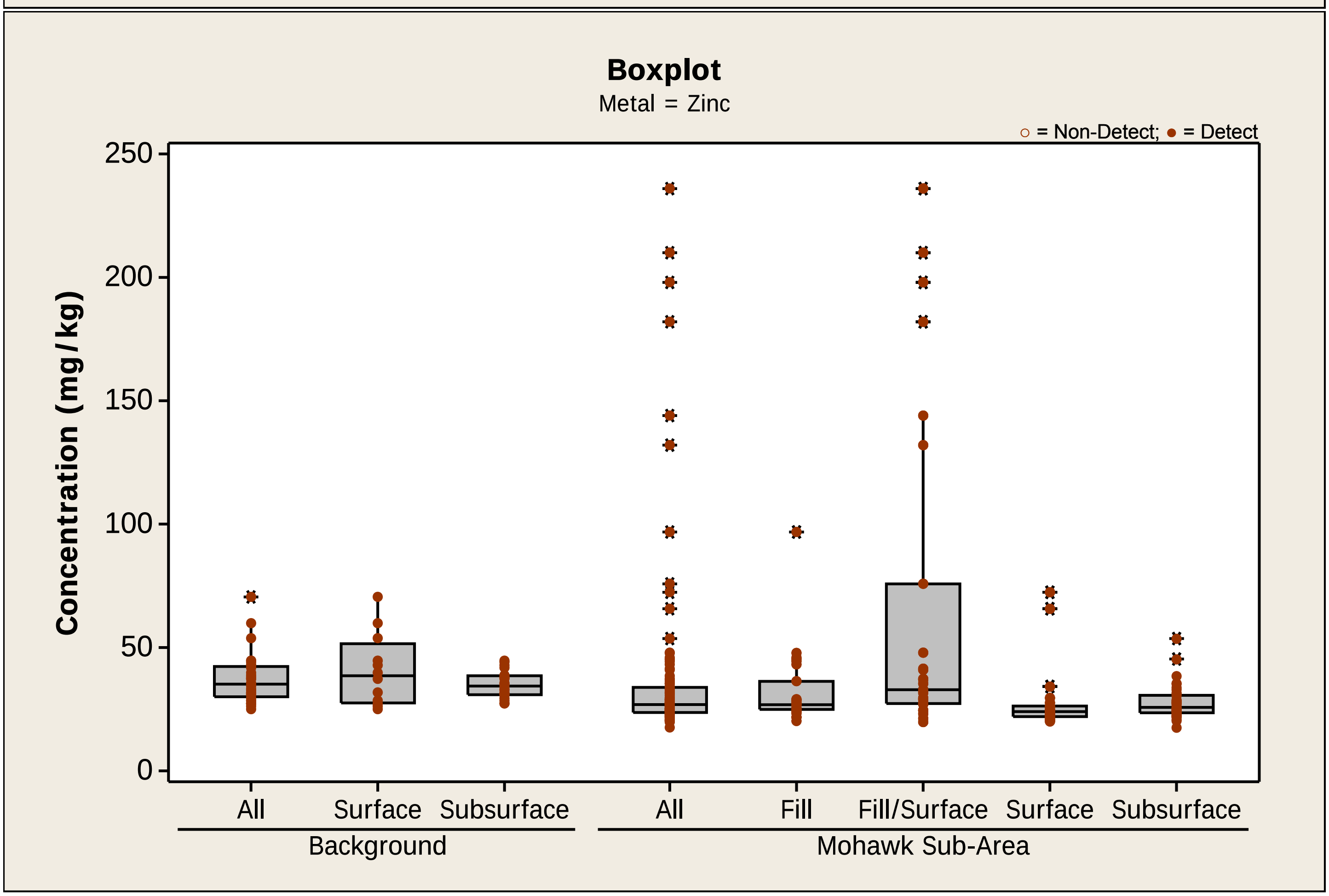
Probability Plot
Normal - 95% CI
Metal = Vanadium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-200
-100
0
100
200
300
400
500
Concentration (mg/kg)
Background
Mohawk



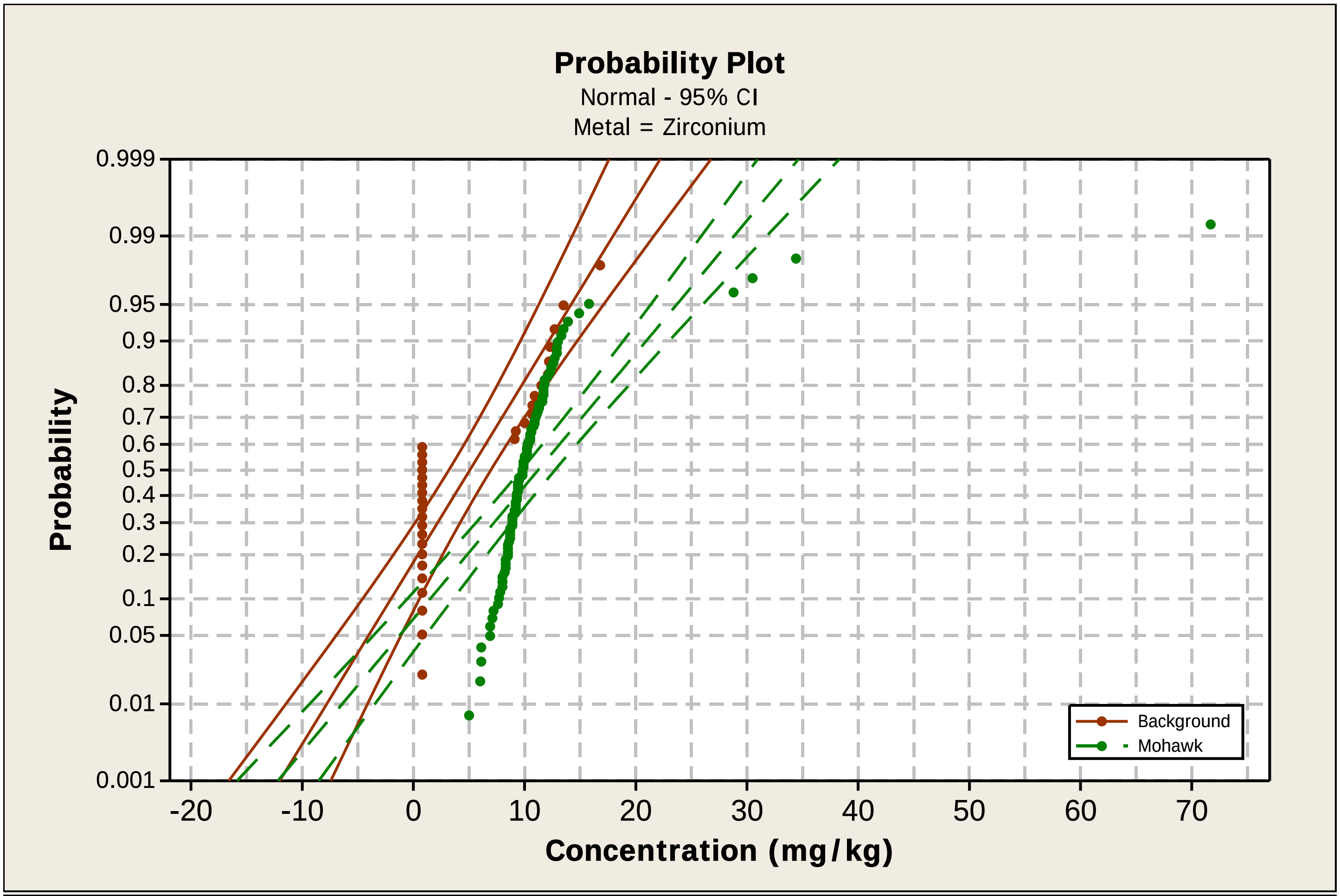
Boxplot
Metal = Vanadium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
500
400
300
200
100
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



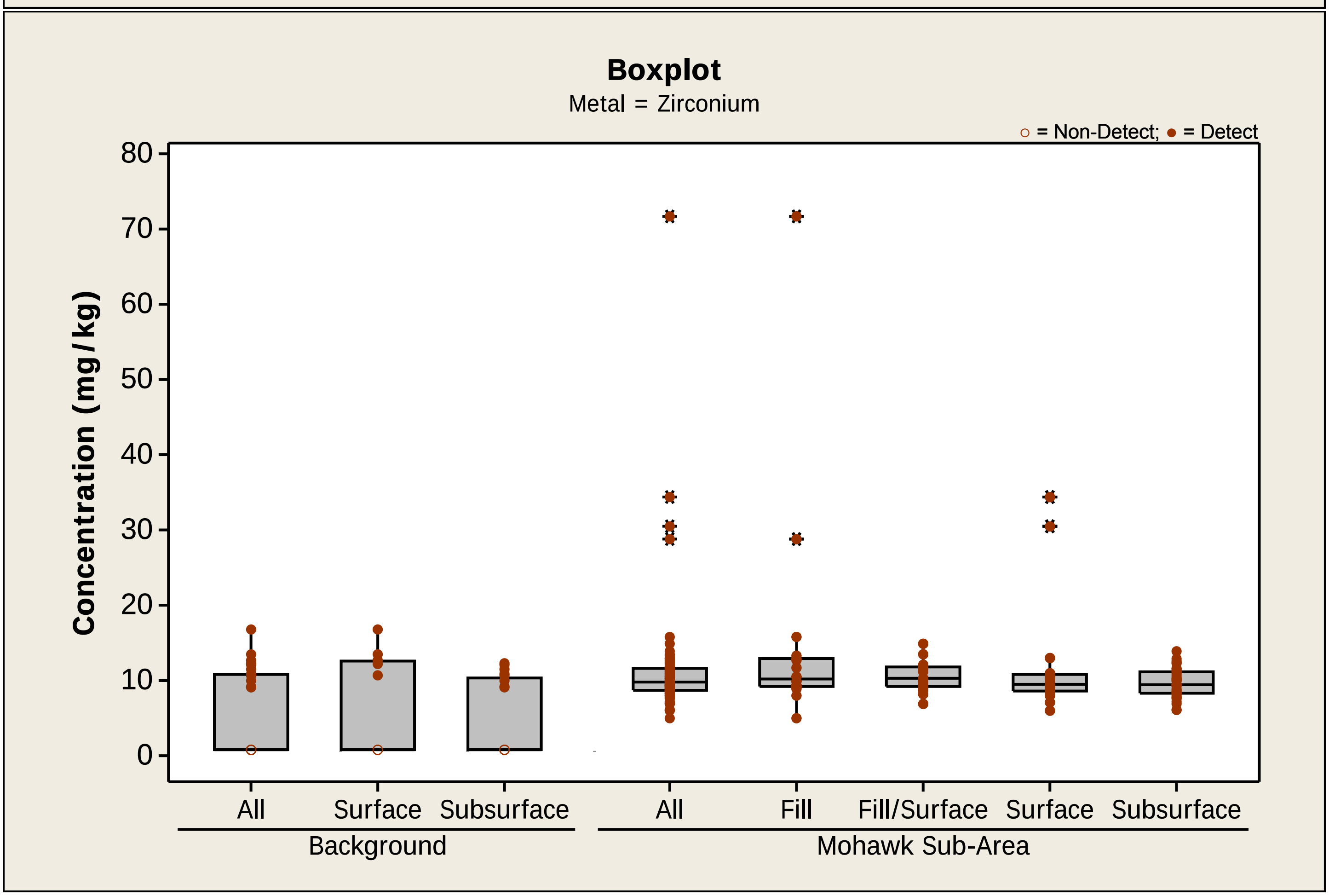
Probability Plot
Normal - 95% CI
Metal = Zinc
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-100
-50
0
50
100
150
200
250
Concentration (mg/kg)
Background
Mohawk



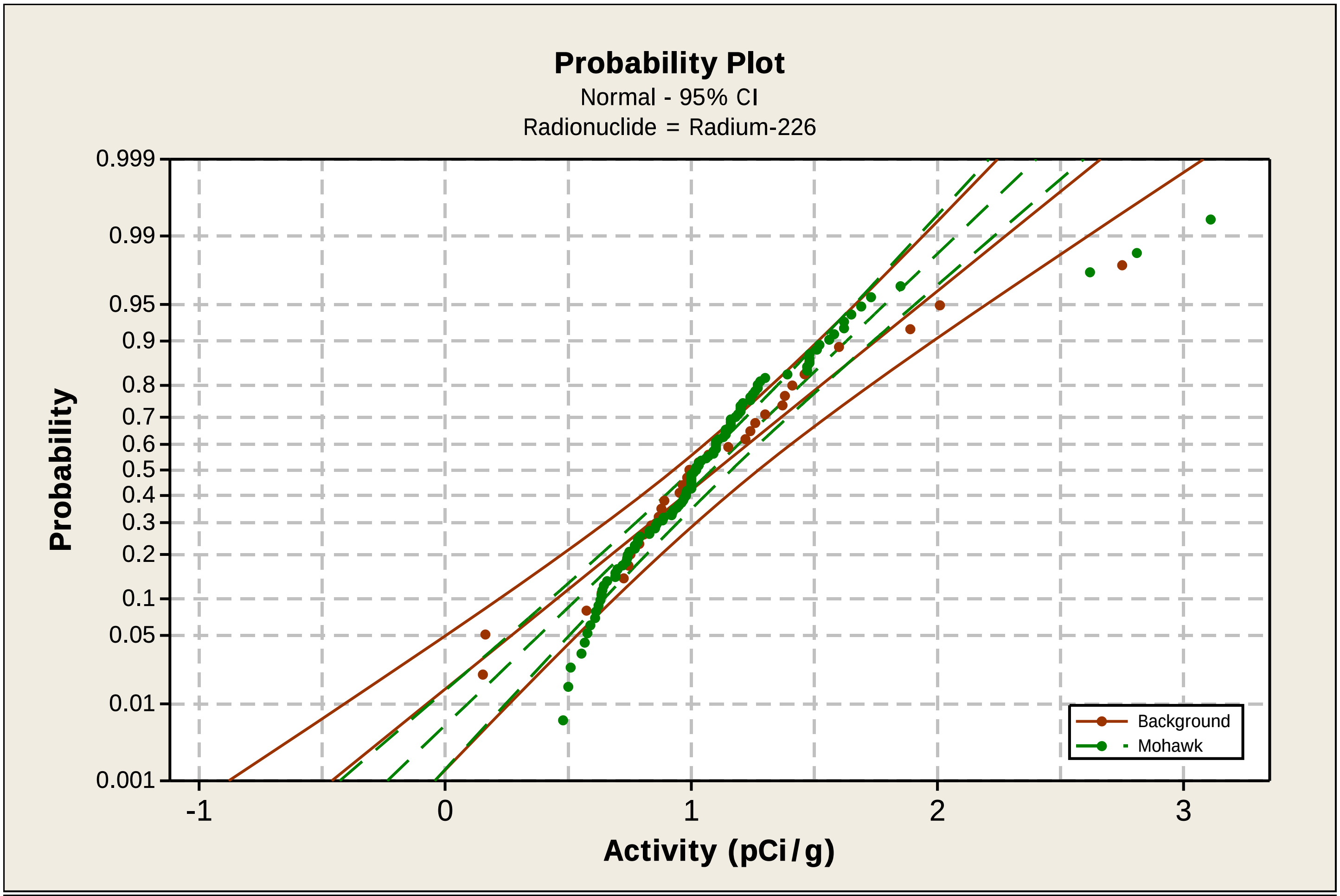
Boxplot
Metal = Zinc
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
250
200
150
100
50
0
All
Surface
Subsurface
Background
All
Fill
Fill/Surface
Surface
Subsurface
Mohawk Sub-Area

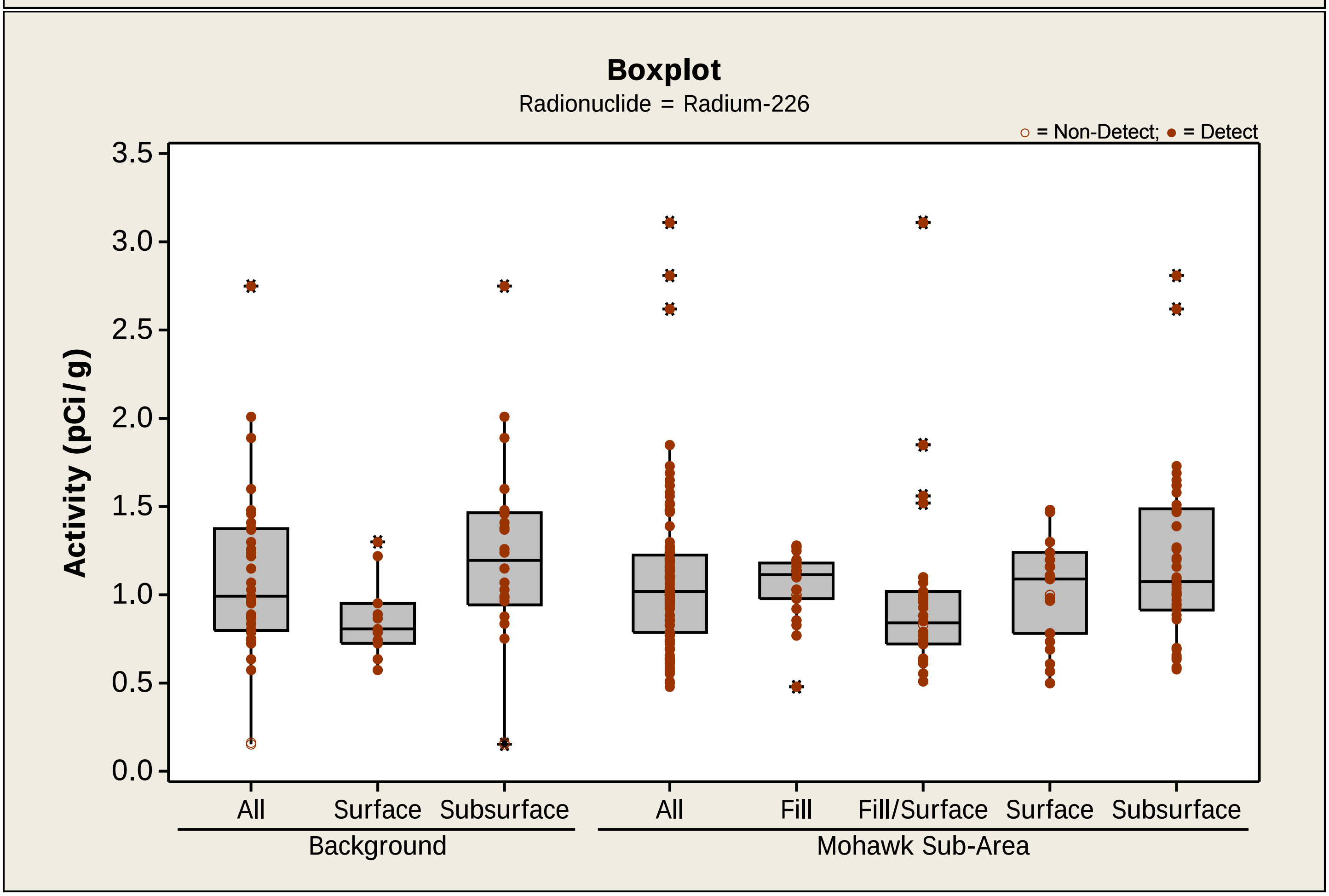


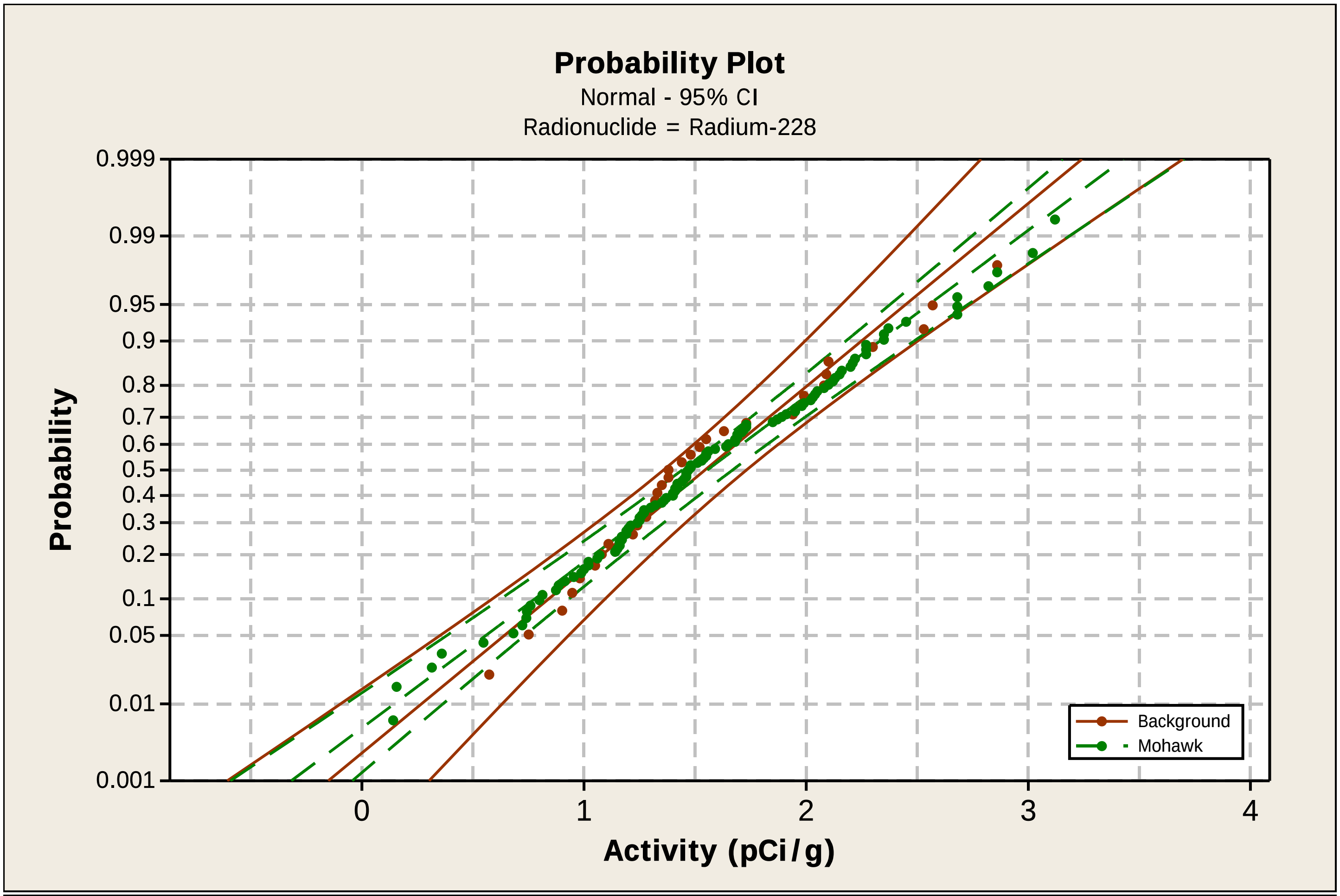
Probability Plot
Normal - 95% CI
Metal = Zirconium
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-20
-10
0
10
20
30
40
50
60
70
Concentration (mg/kg)
Background
Mohawk



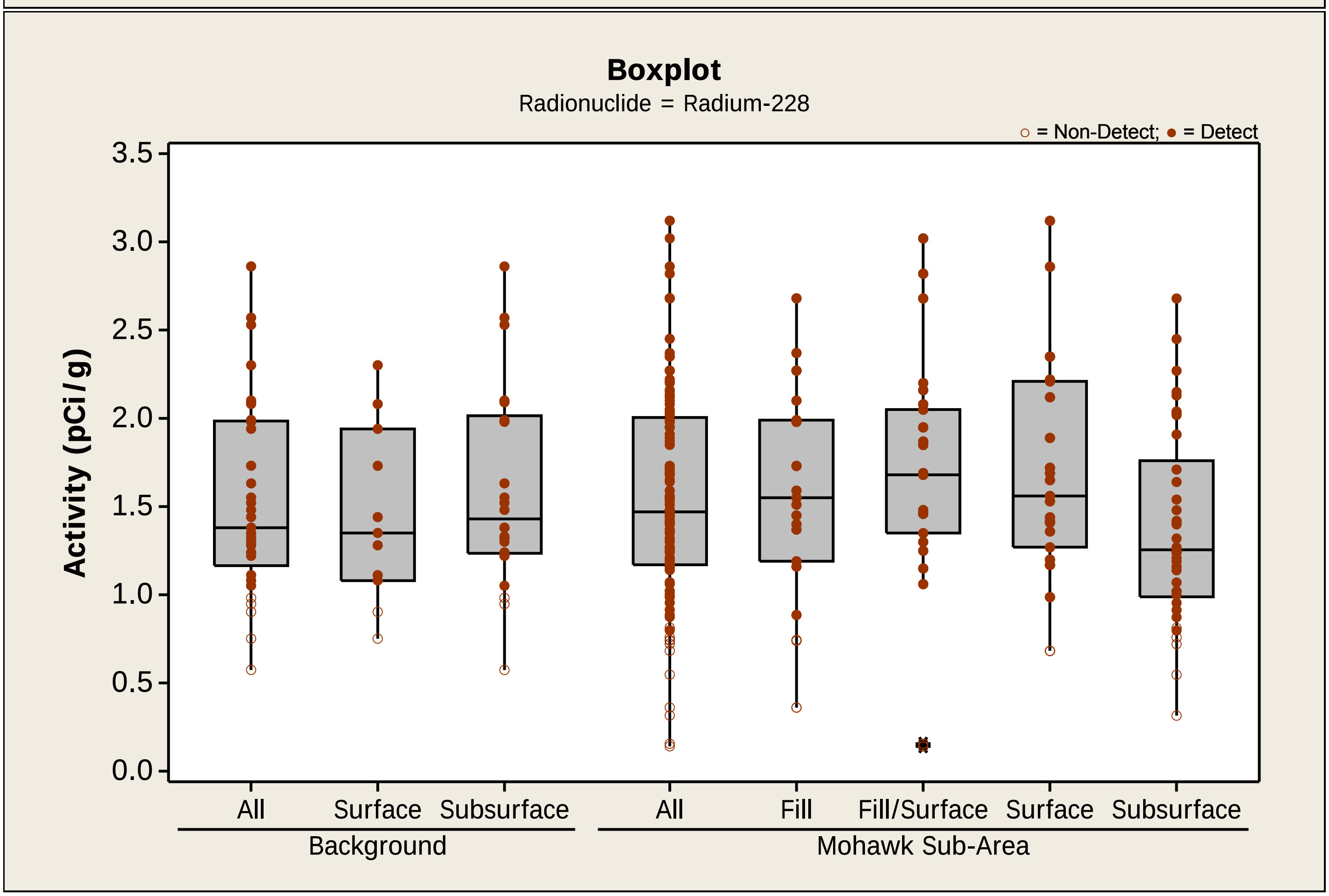
Boxplot
Metal = Zirconium
○ = Non-Detect; ● = Detect
Concentration (mg/kg)
80
70
60
50
40
30
20
10
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Radionuclide = Radium-226
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-1
0
1
2
3
Activity (pCi/g)
Background
Mohawk

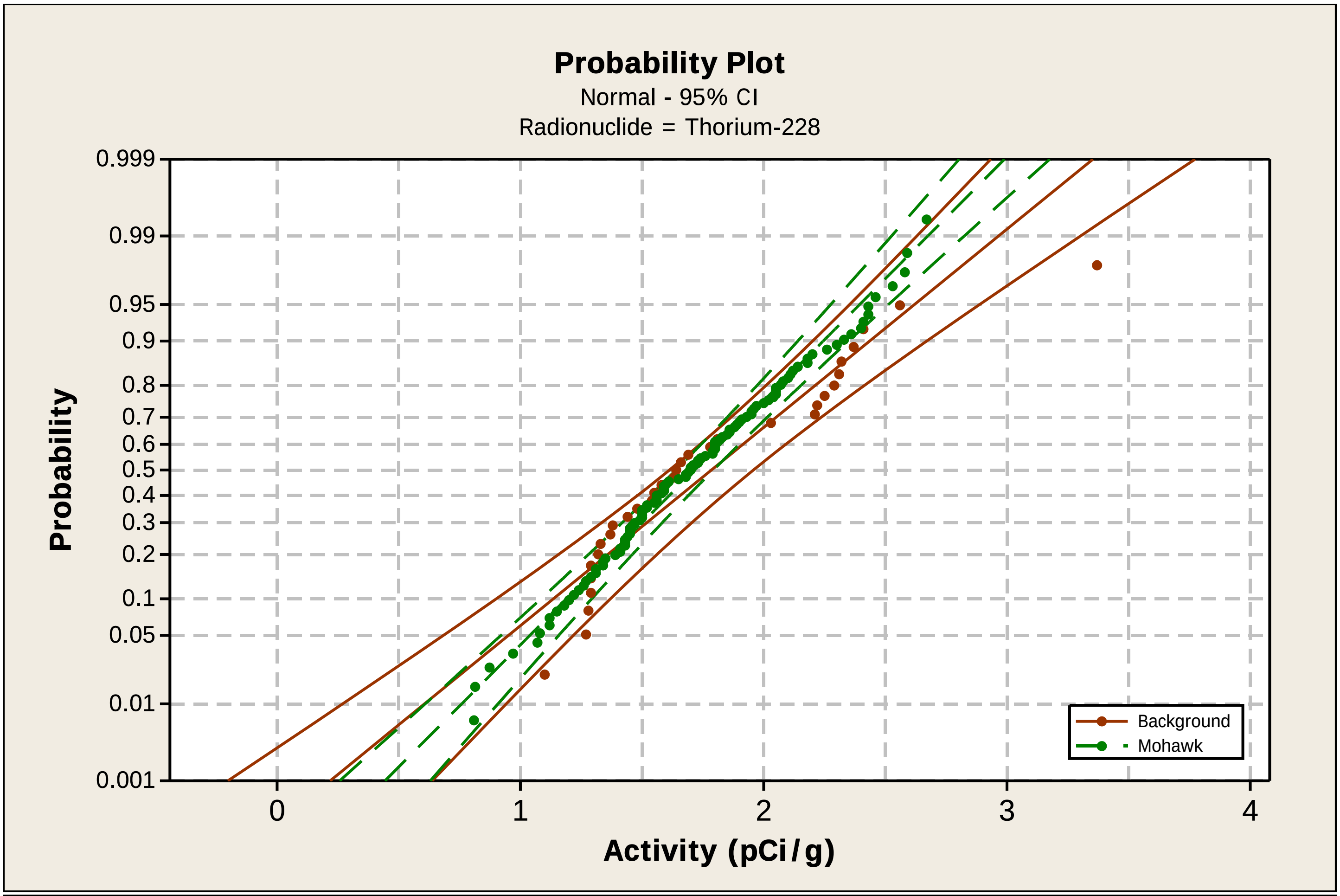

Boxplot
Radionuclide = Radium-226
○ = Non-Detect; ● = Detect
Activity (pCi/g)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



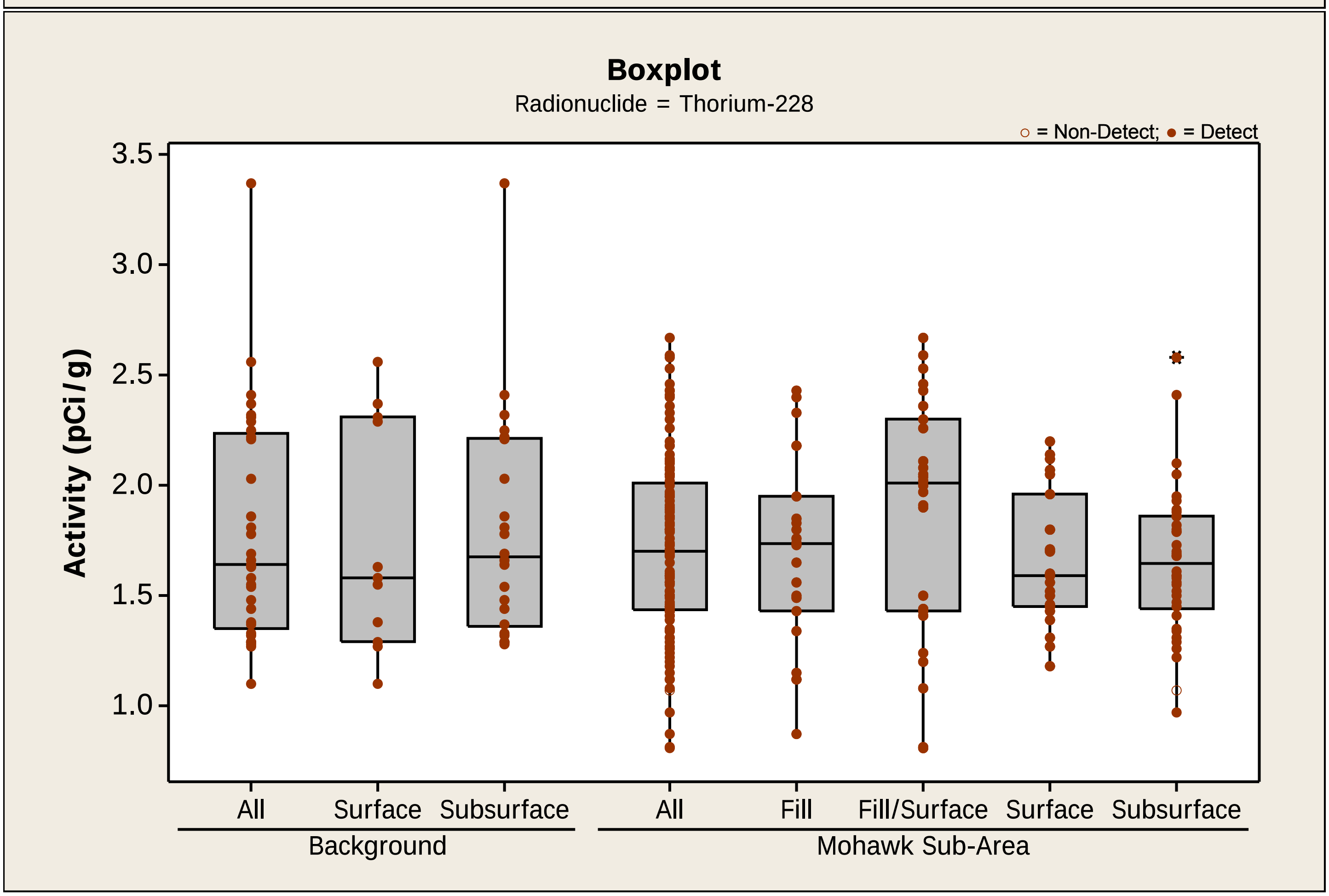
Probability Plot
Normal - 95% CI
Radionuclide = Radium-228
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
1
2
3
4
Activity (pCi/g)
Background
Mohawk



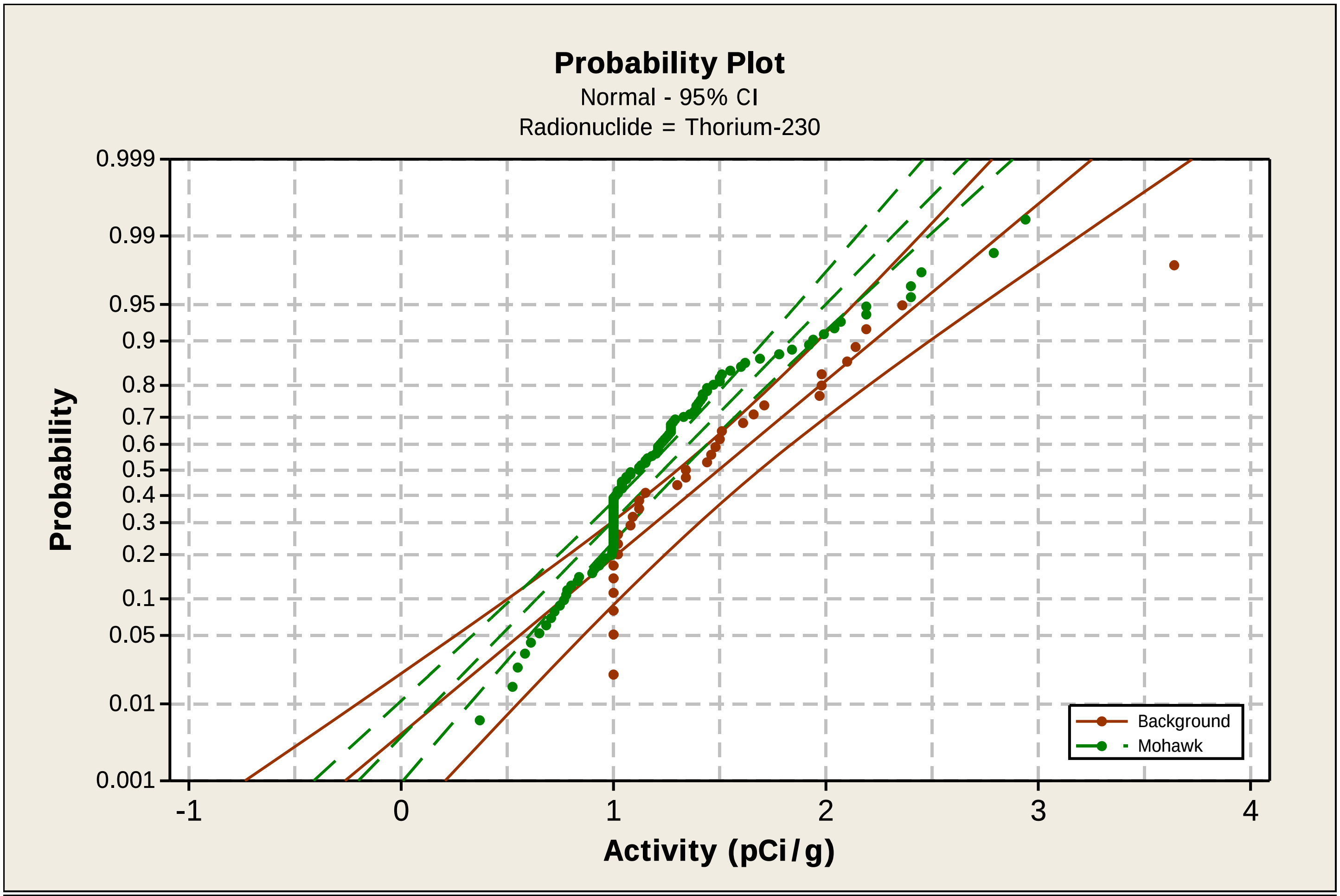
Boxplot
Radionuclide = Radium-228
○ = Non-Detect; ● = Detect
Activity (pCi/g)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

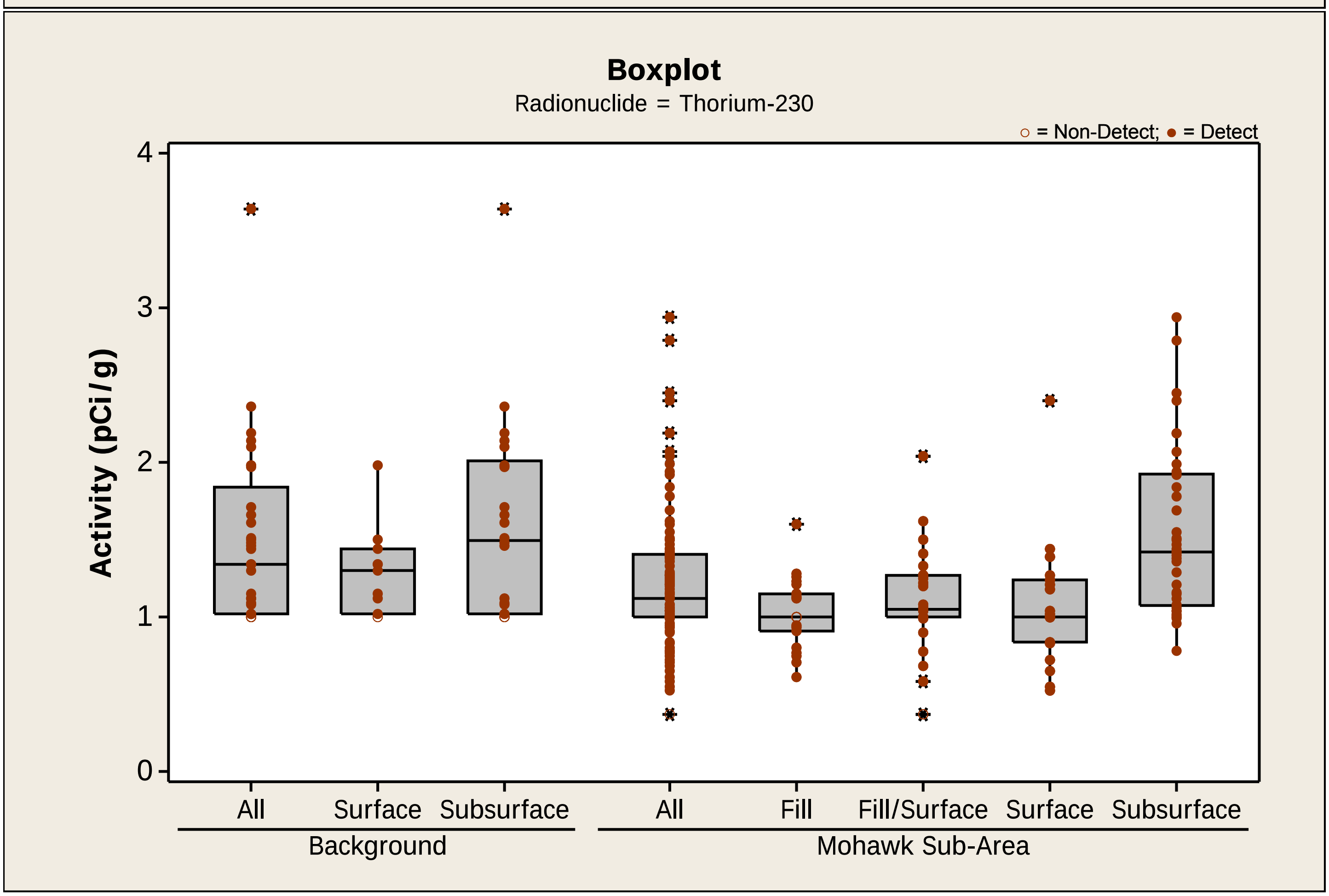


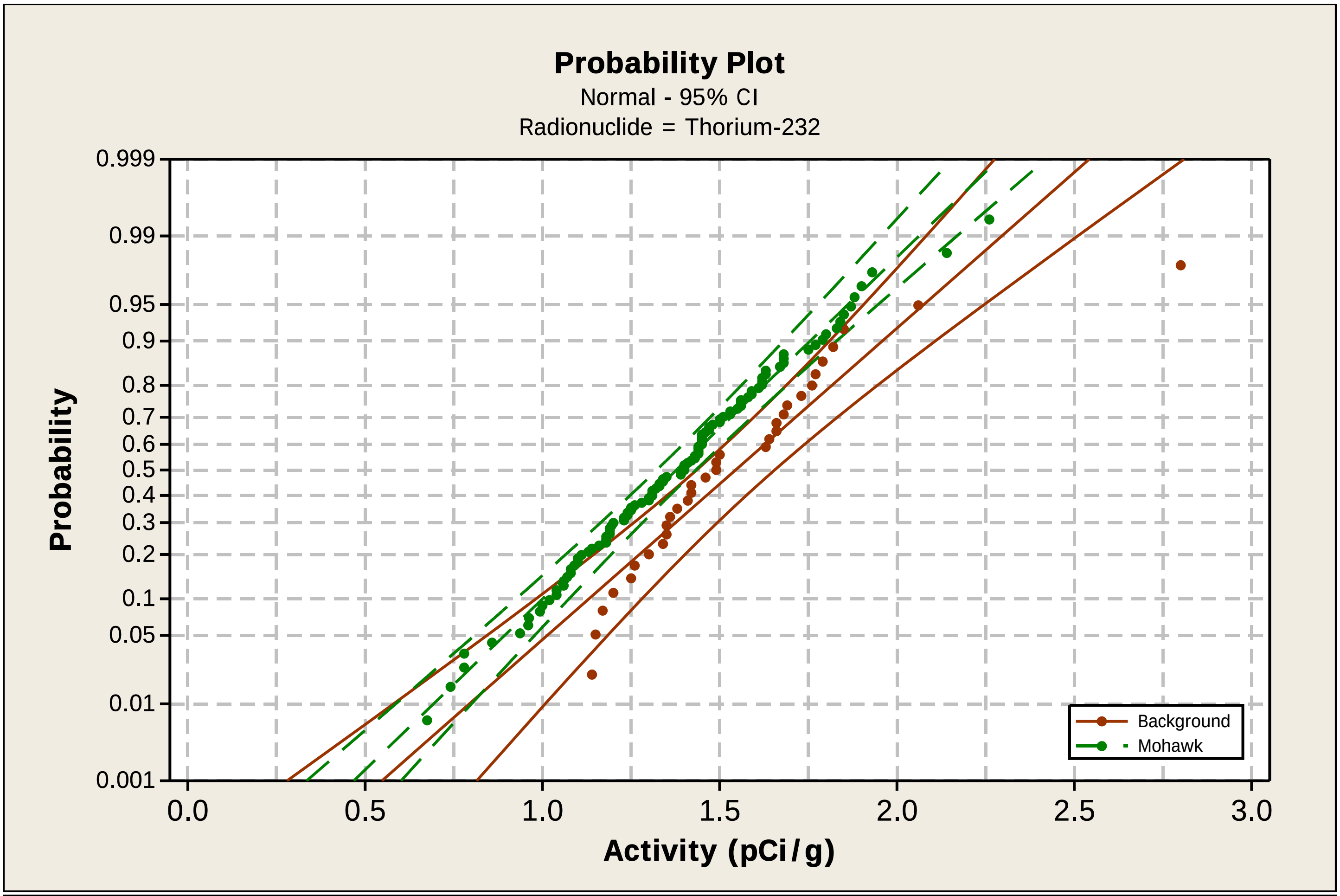
Probability Plot
Normal - 95% CI
Radionuclide = Thorium-228
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0
1
2
3
4
Activity (pCi/g)
Background
Mohawk

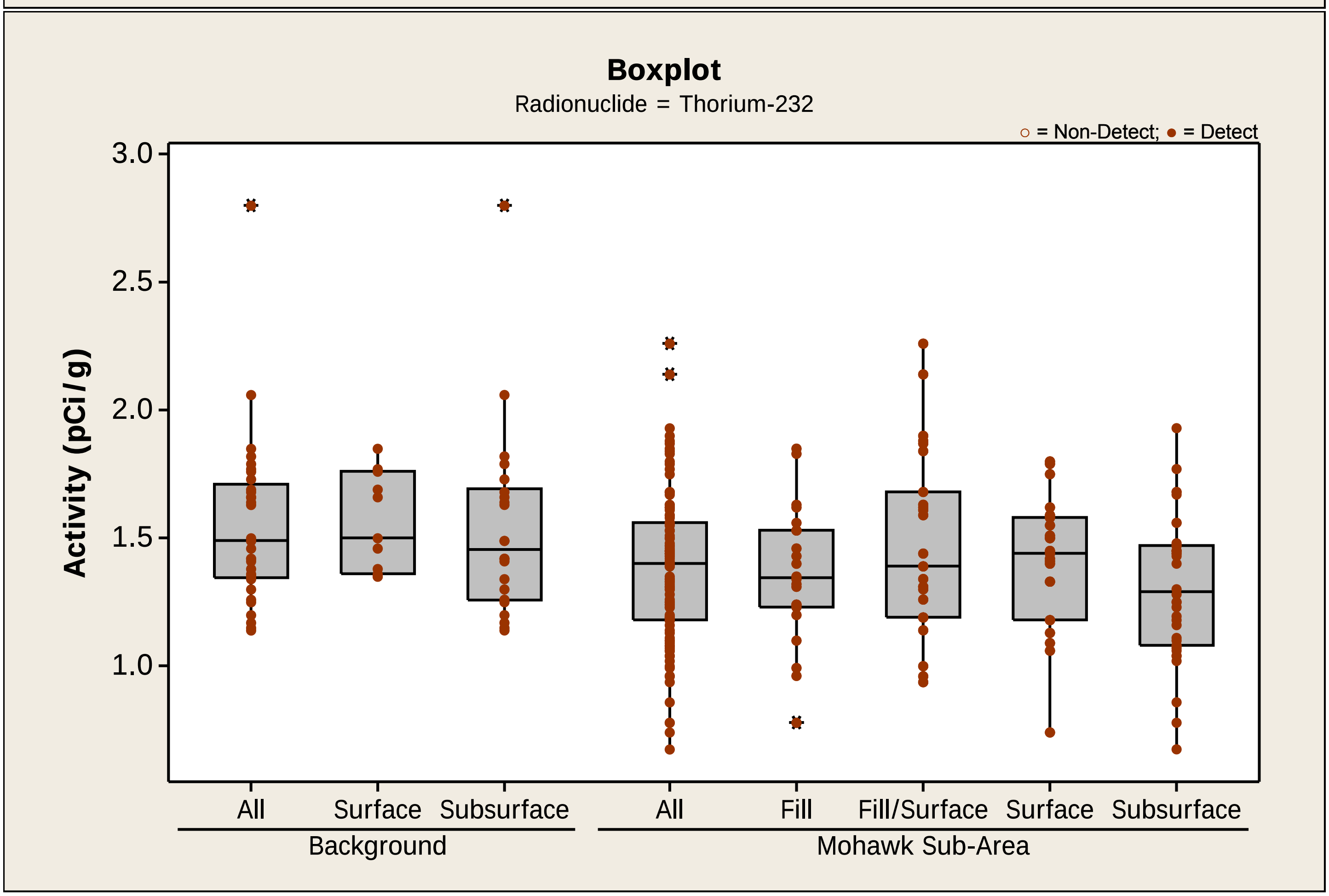


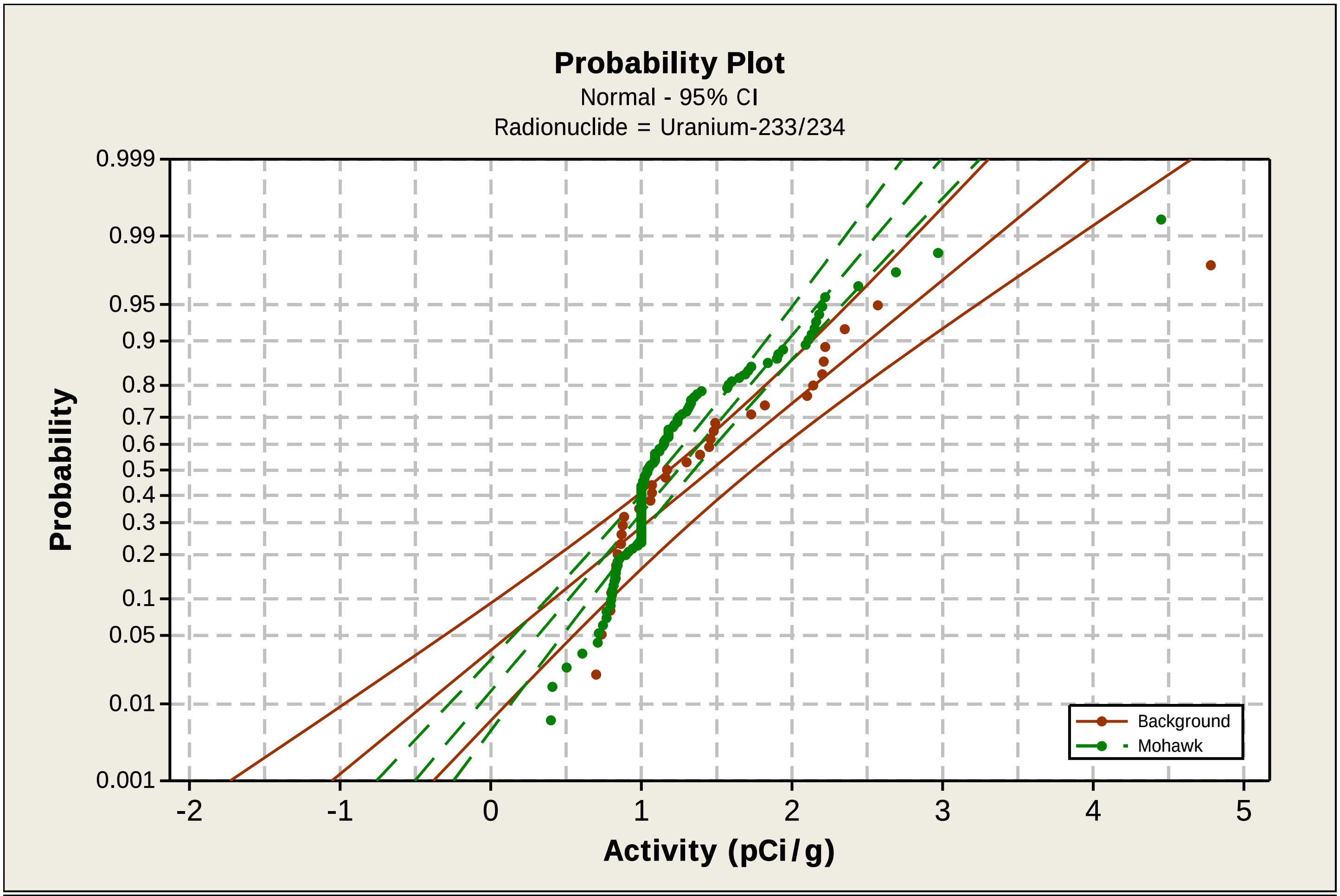
Boxplot
Radionuclide = Thorium-228
○ = Non-Detect; ● = Detect
Activity (pCi/g)
3.5
3.0
2.5
2.0
1.5
1.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

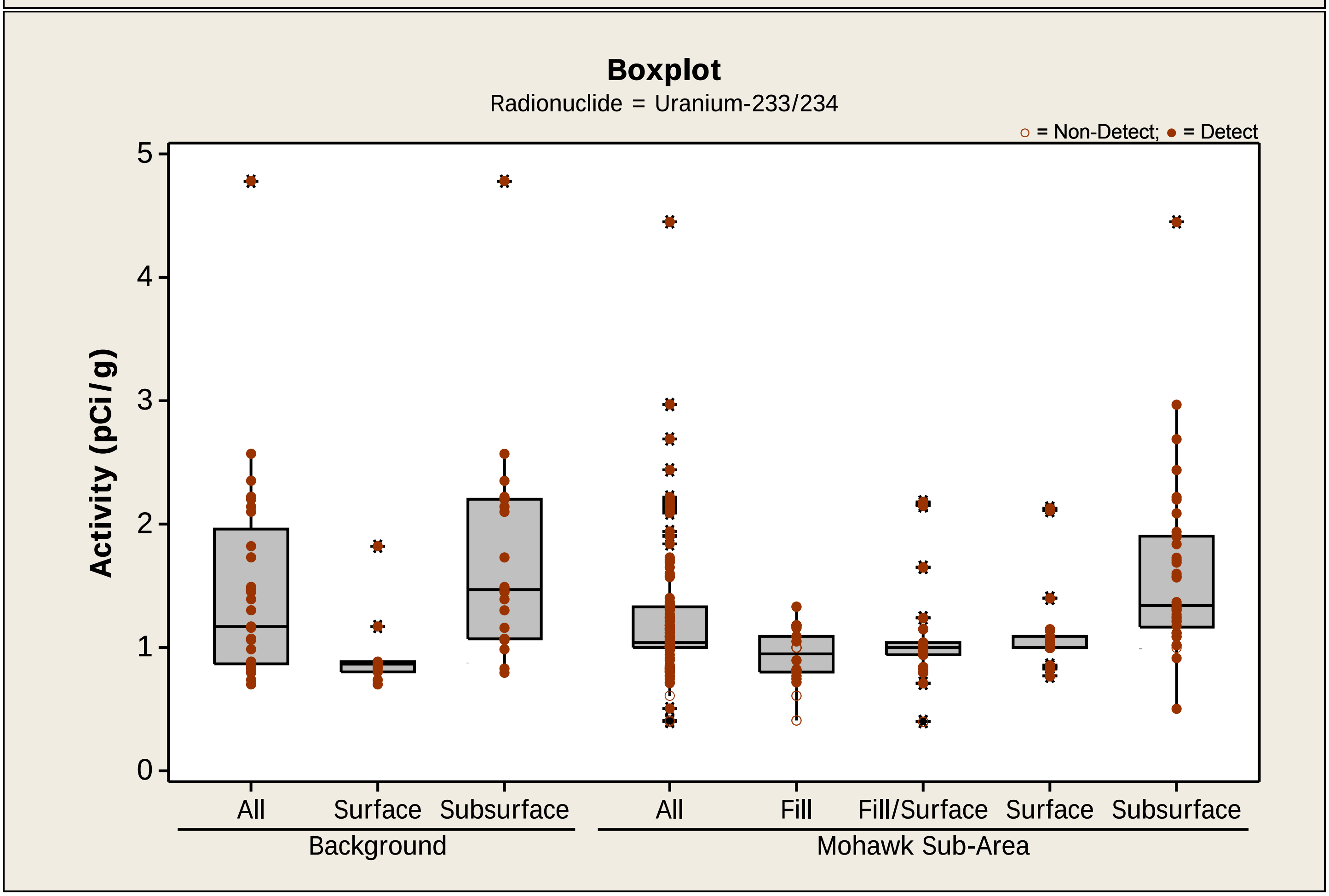

Probability Plot
Normal - 95% CI
Radionuclide = Thorium-230
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-1
0
1
2
3
4
Activity (pCi/g)
Background
Mohawk

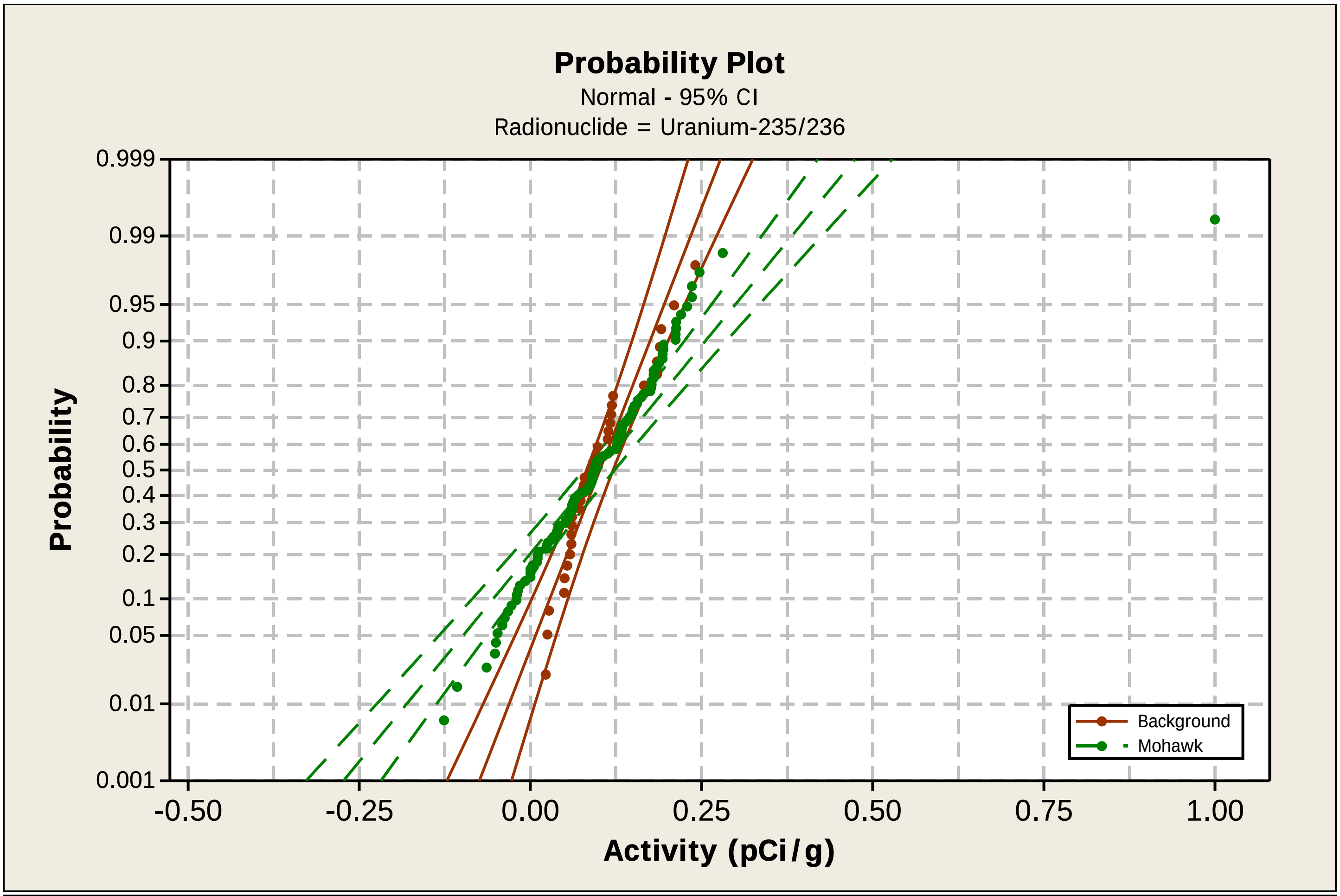

Boxplot
Radionuclide = Thorium-230
○ = Non-Detect; ● = Detect
Activity (pCi/g)
4
3
2
1
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

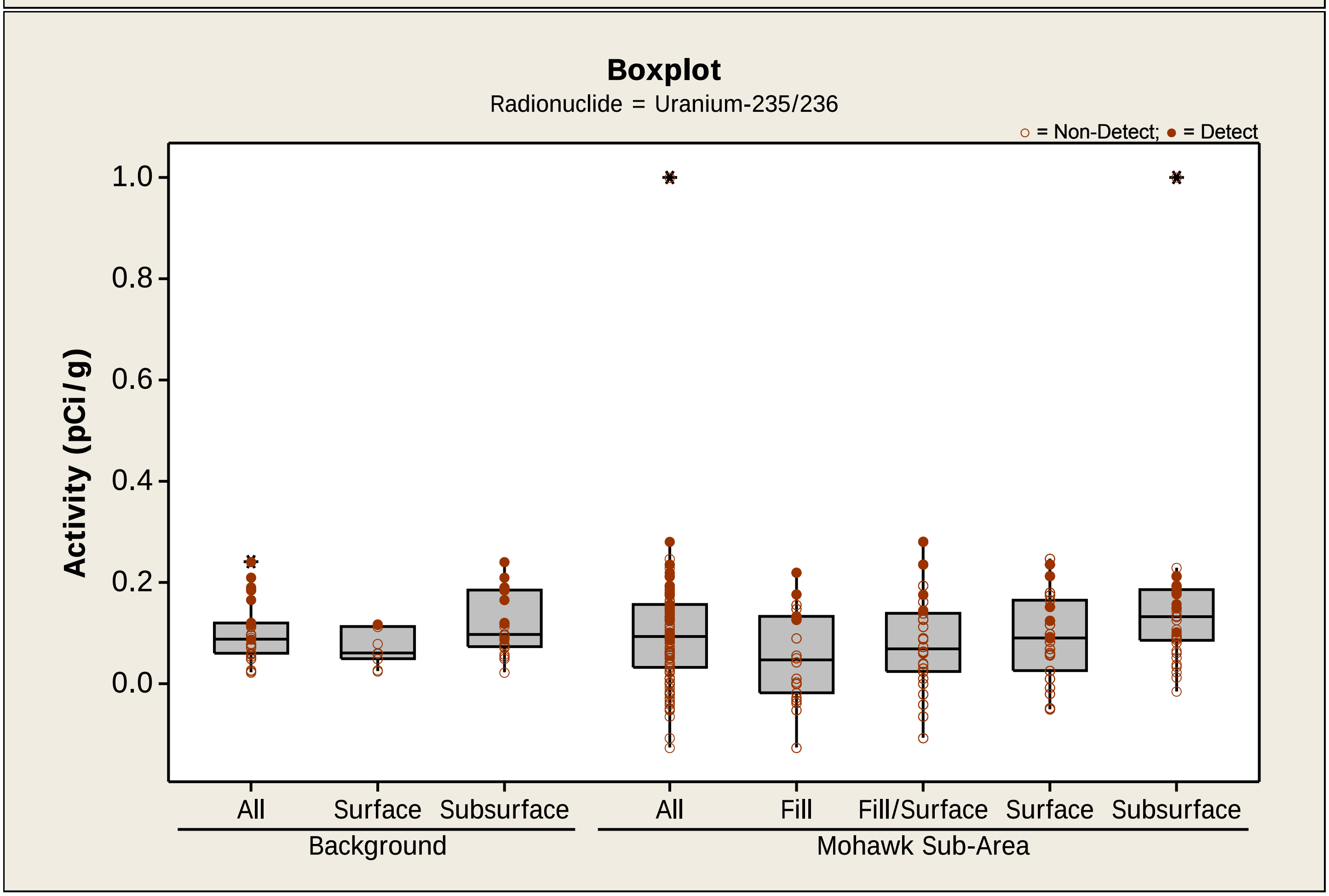

Probability Plot
Normal - 95% CI
Radionuclide = Thorium-232
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Activity (pCi/g)
Background
Mohawk

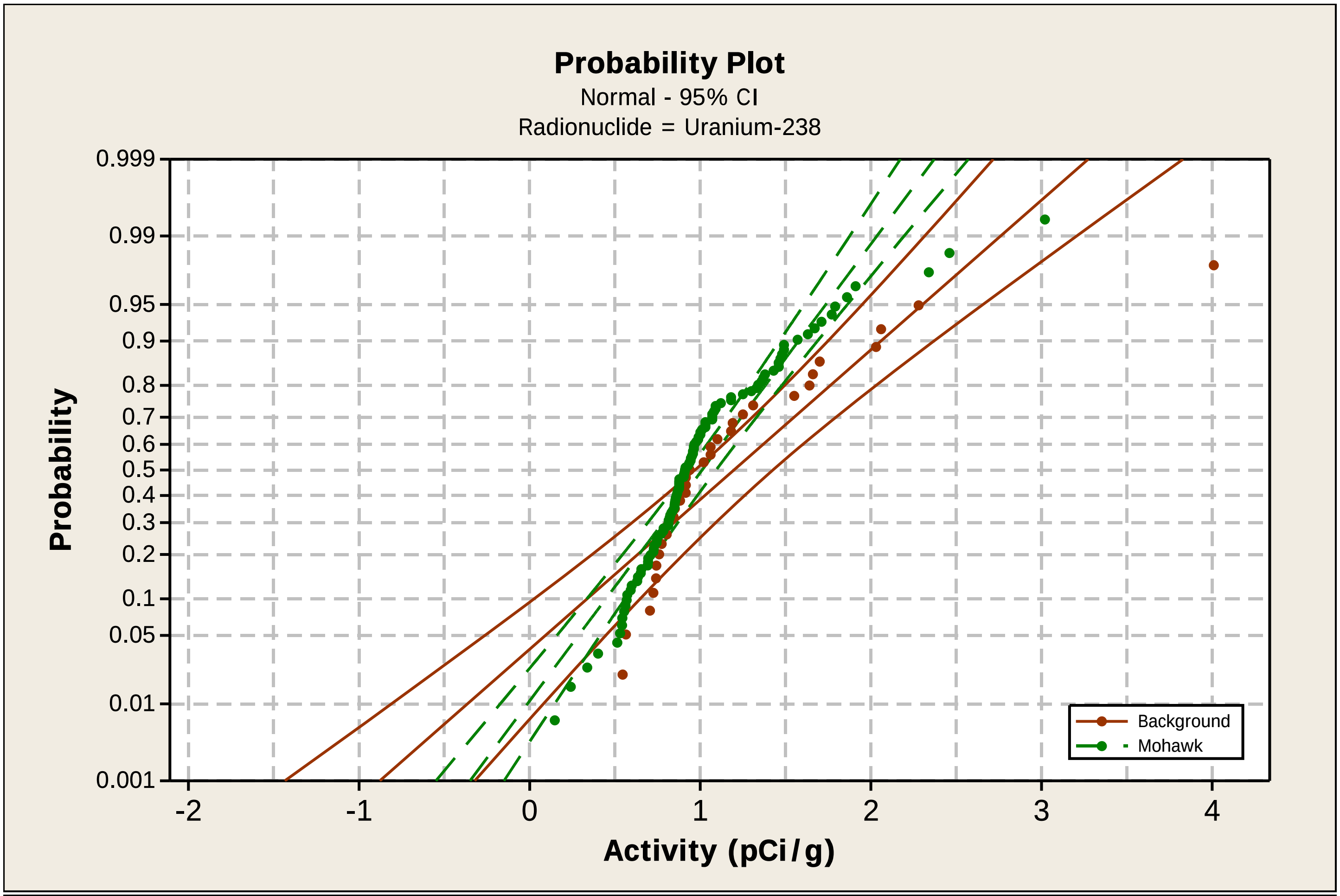

Boxplot
Radionuclide = Thorium-232
○ = Non-Detect; ● = Detect
Activity (pCi/g)
3.0
2.5
2.0
1.5
1.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Radionuclide = Uranium-233/234
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-2
-1
0
1
2
3
4
5
Activity (pCi/g)
Background
Mohawk

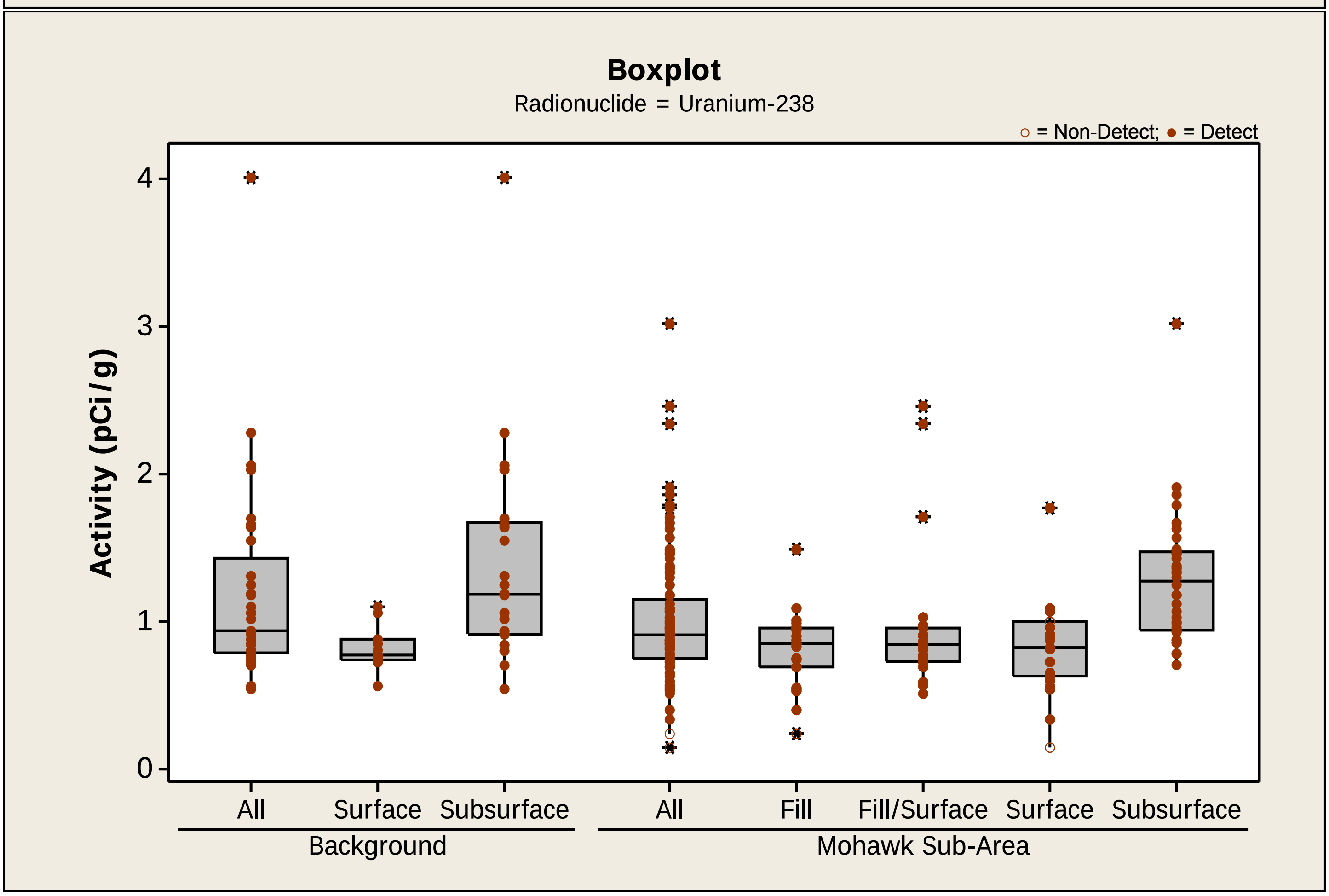

Boxplot
Radionuclide = Uranium-233/234
○ = Non-Detect; ● = Detect
Activity (pCi/g)
5
4
3
2
1
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area


Probability Plot
Normal - 95% CI
Radionuclide = Uranium-235/236
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-0.50
-0.25
0.00
0.25
0.50
0.75
1.00
Activity (pCi/g)
Background
Mohawk


Boxplot
Radionuclide = Uranium-235/236
○ = Non-Detect; ● = Detect
Activity (pCi/g)
1.0
0.8
0.6
0.4
0.2
0.0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area



Probability Plot
Normal - 95% CI
Radionuclide = Uranium-238
Probability
0.999
0.99
0.95
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.05
0.01
0.001
-2
-1
0
1
2
3
4
Activity (pCi/g)
Background
Mohawk



Boxplot
Radionuclide = Uranium-238
○ = Non-Detect; ● = Detect
Activity (pCi/g)
4
3
2
1
0
All
Surface
Subsurface
All
Fill
Fill/Surface
Surface
Subsurface
Background
Mohawk Sub-Area

APPENDIX H

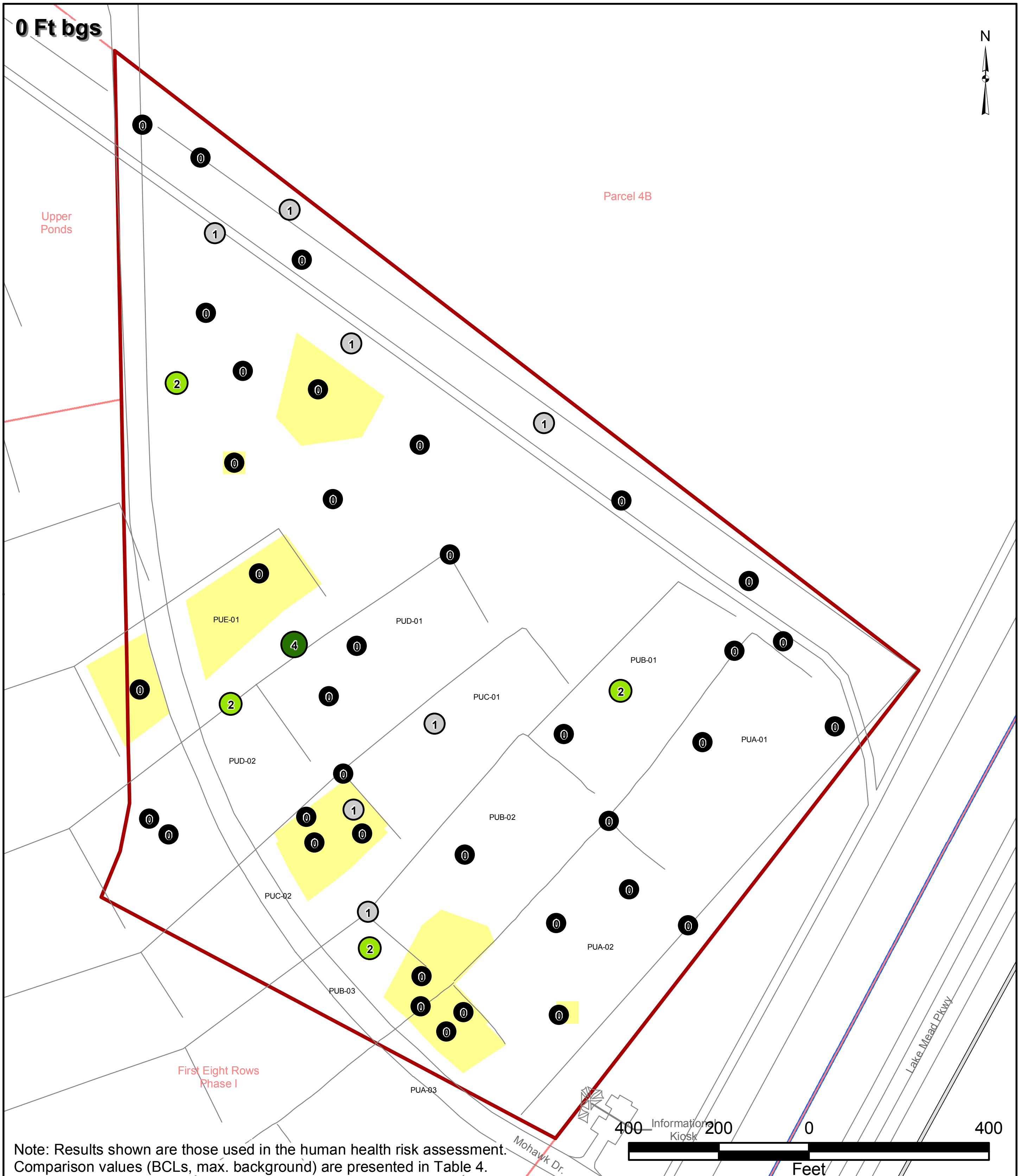
HUMAN HEALTH RISK ASSESSMENT CALCULATION SPREADSHEETS

(on the report CD in Appendix B)

APPENDIX I

CHEMICALS OF POTENTIAL CONCERN (COPC) INTENSITY PLOTS

LIST OF FIGURES (APPENDIX I)



Note: Results shown are those used in the human health risk assessment.
Comparison values (BCLs, max. background) are presented in Table 4.

- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Soil Removal Areas
- None Detected
- 1 Chrysotile Fiber
- 2-3 Chrysotile Fibers
- 4-7 Chrysotile Fibers
- >7 Chrysotile Fibers

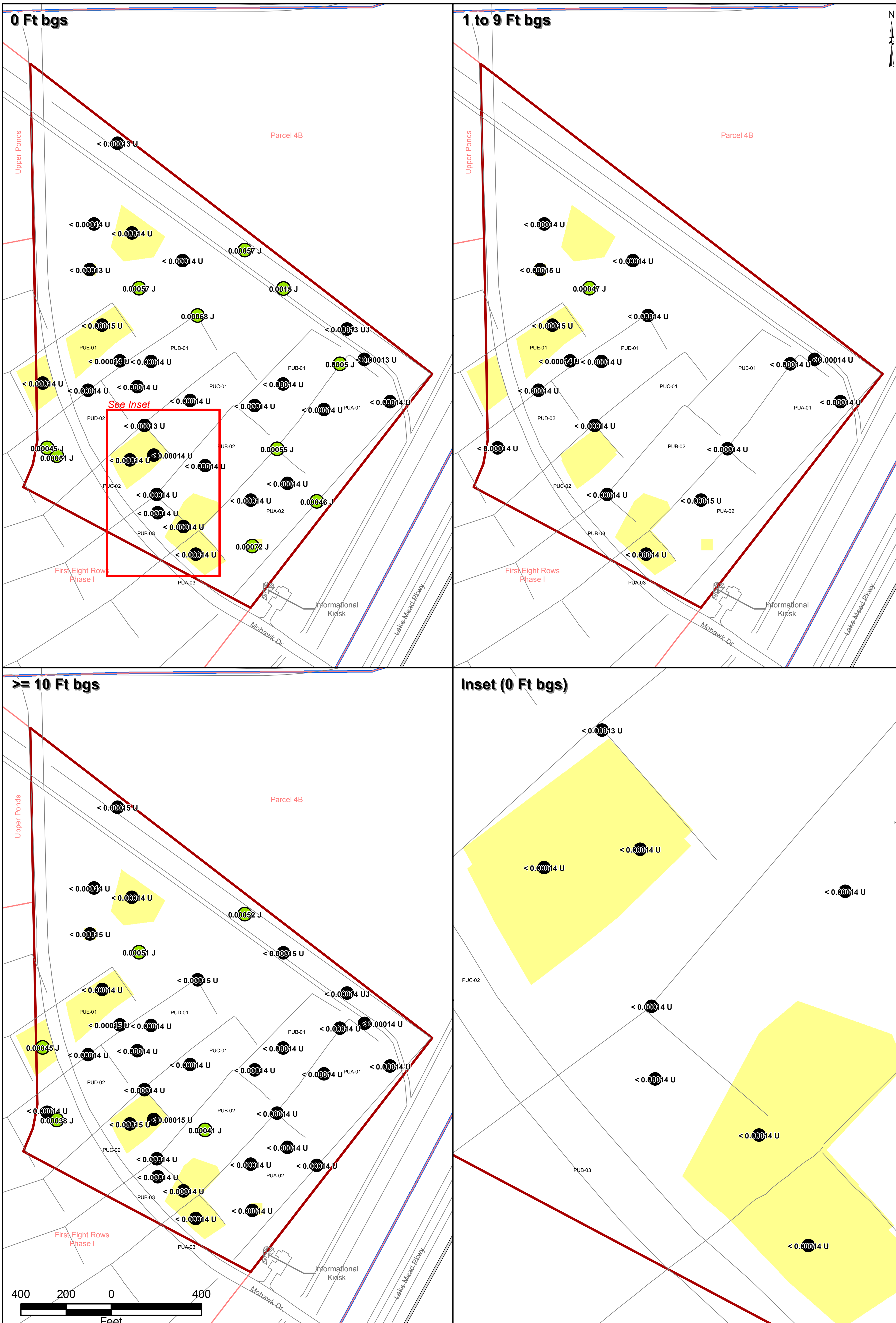
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-1

ASBESTOS SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by		Date	
MKJ (ERM)	ERM	11/18/10	JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

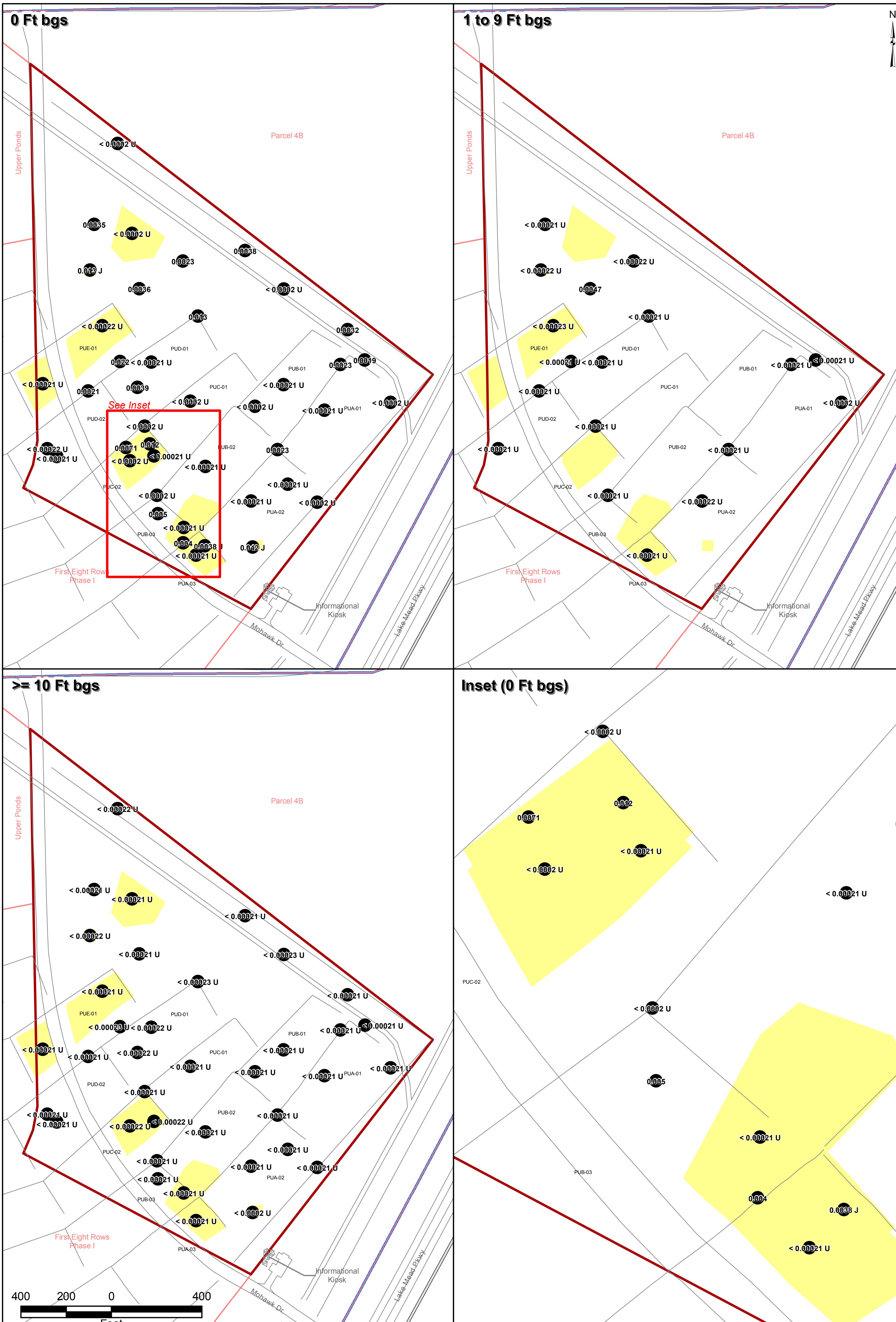
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-2

1,2,4-TRIMETHYLBENZENE SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

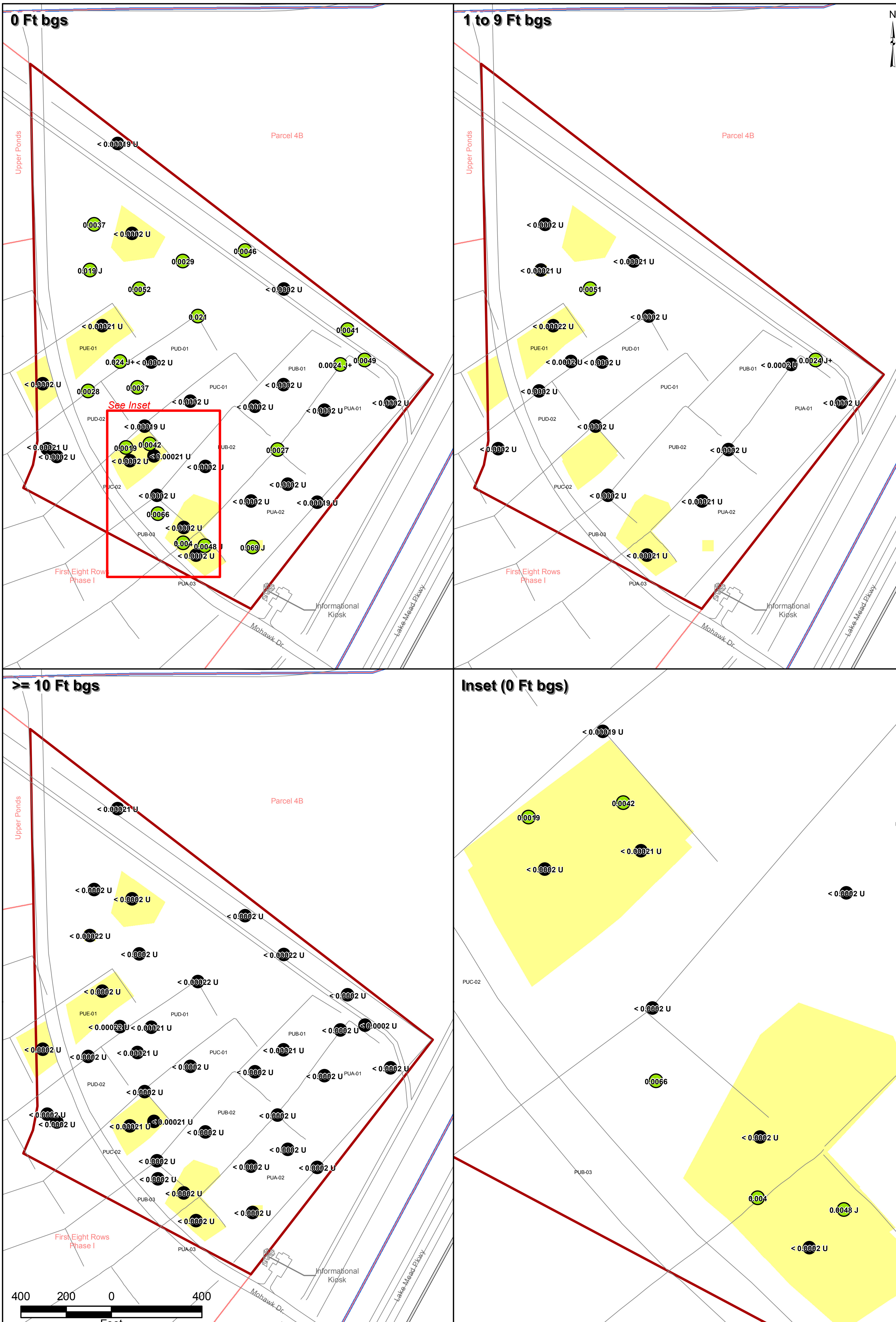
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-3

2,4-DDE
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

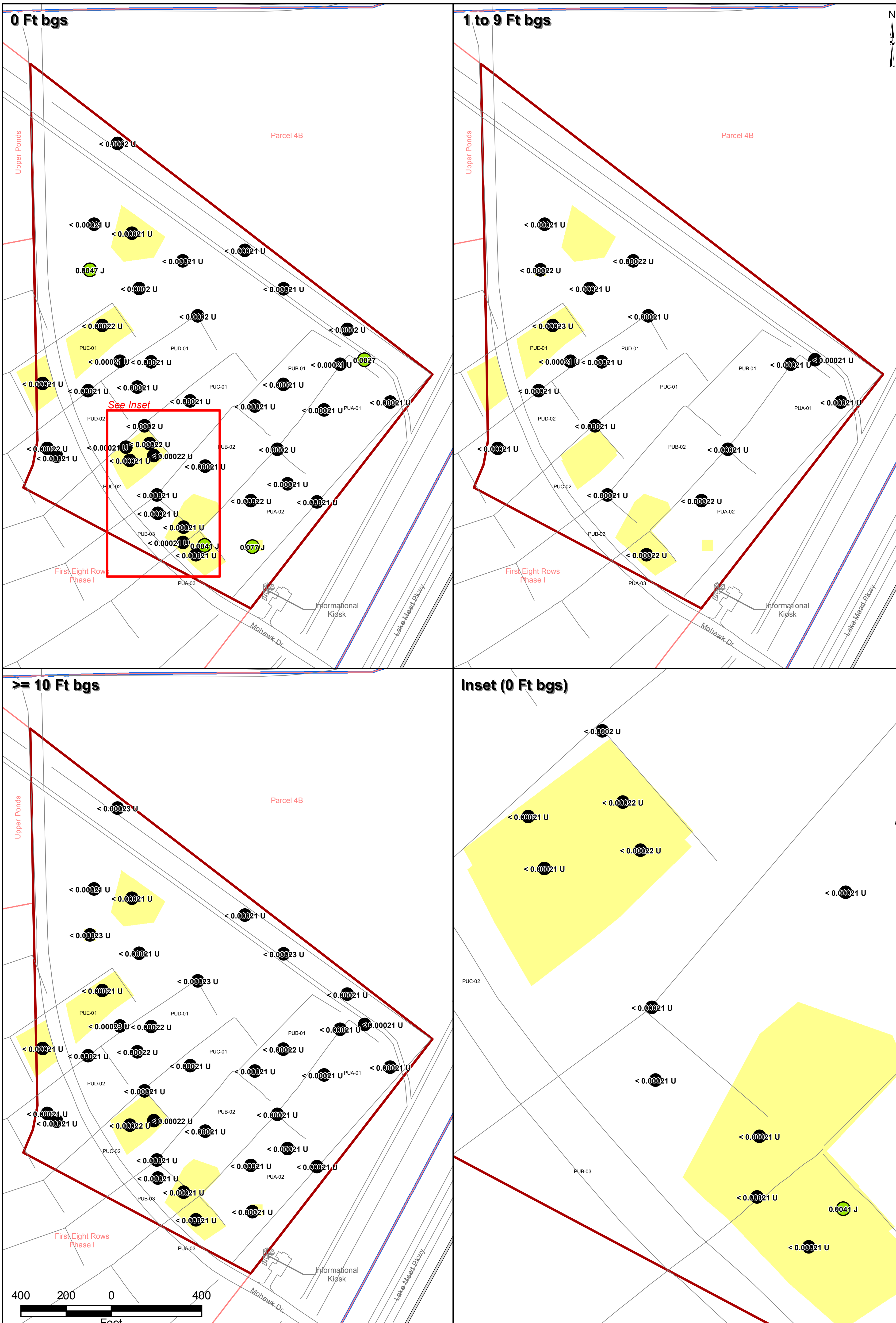
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-4

4,4-DDE
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Soil Removal Areas

- Non-Detect
- Detect < 1/2-BCL
- >= 1/2-BCL and < BCL
- >= BCL and < 10x BCL
- >= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

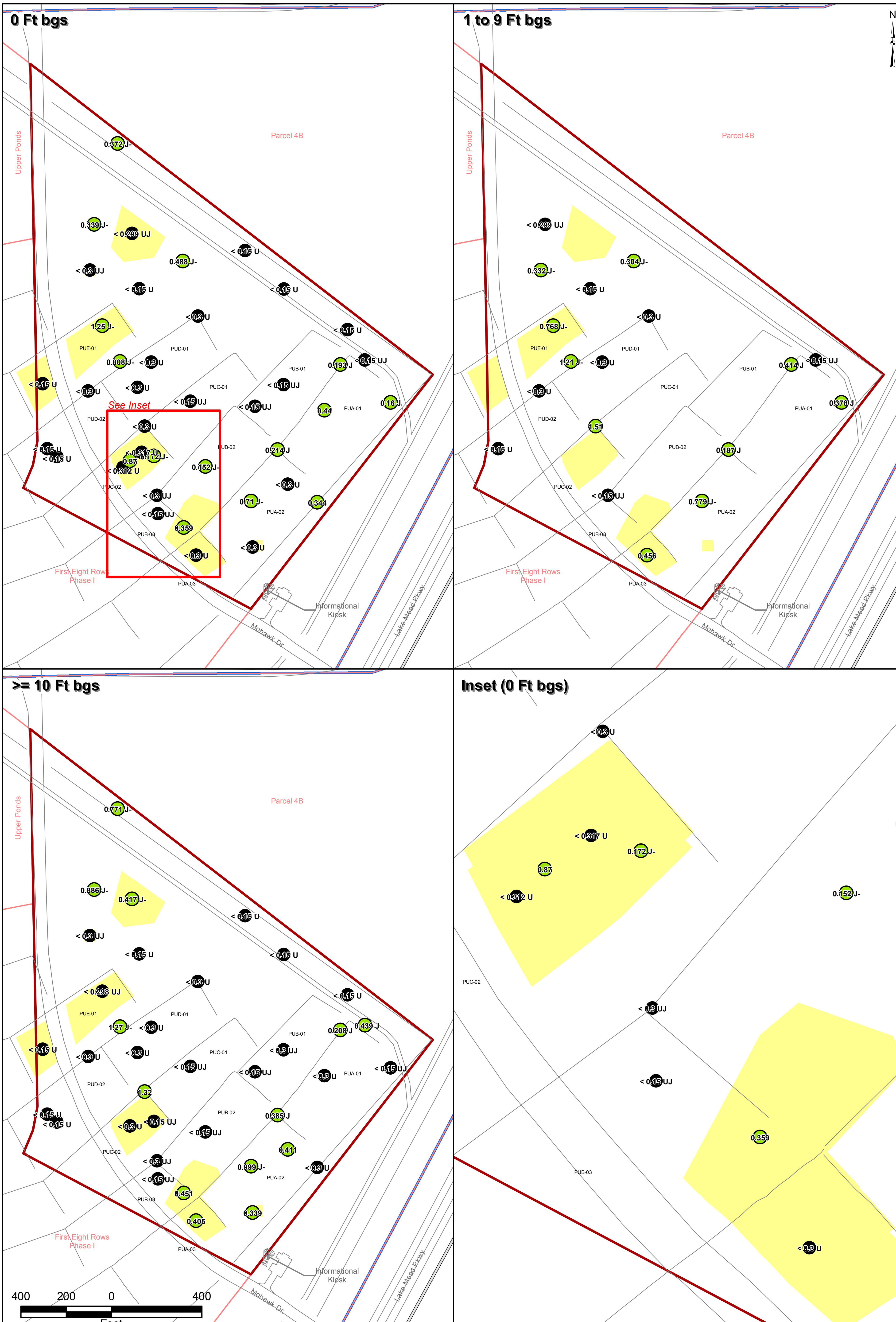
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-5

4,4-DDT
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area

Site AOC3 Boundary

Eastside Soil Sub-Areas

Soil Removal Areas

Non-Detect

Detect < 1/2-BCL

>= 1/2-BCL and < BCL

>= BCL and < 10x BCL

>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

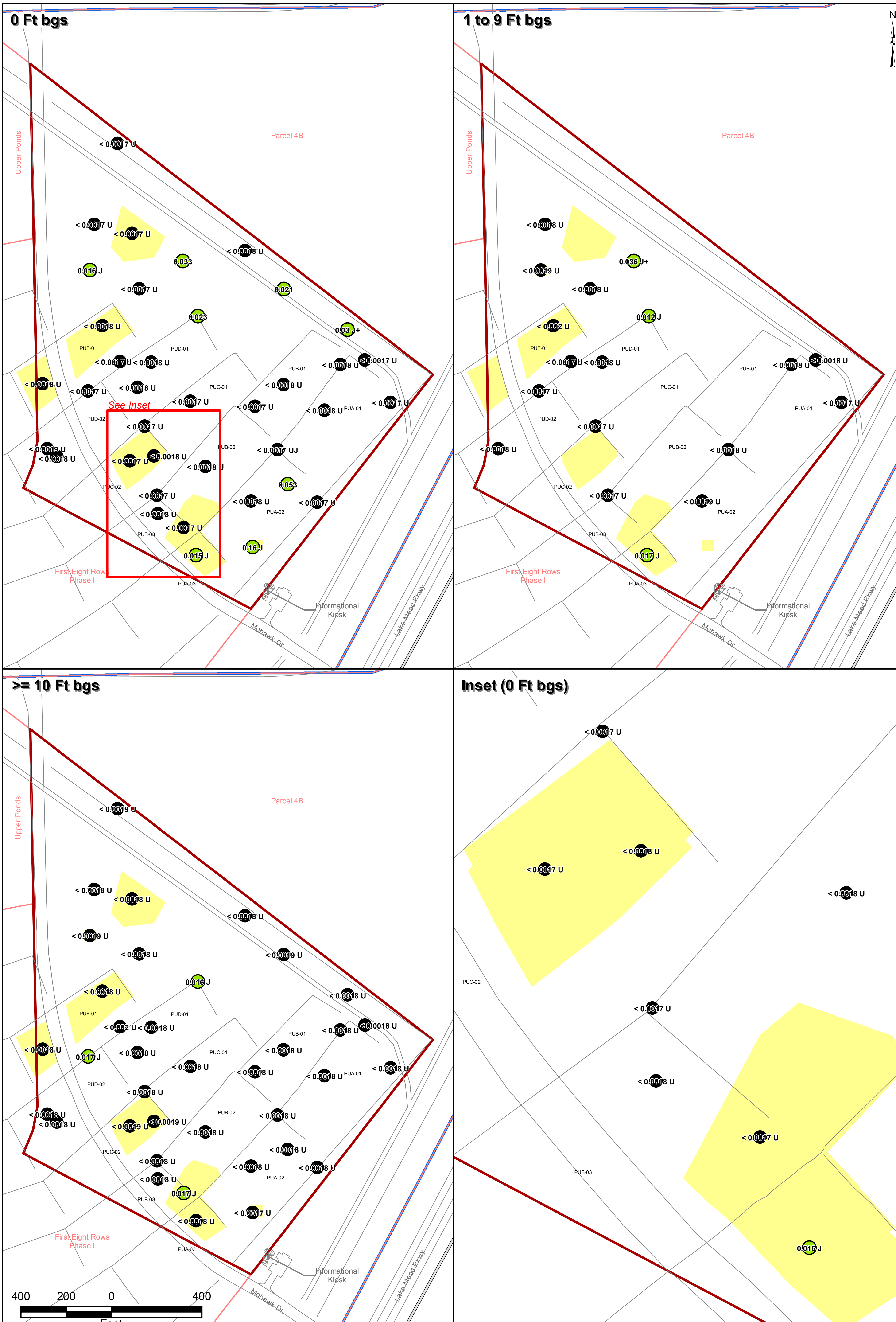
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-6

ACETALDEHYDE SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Soil Removal Areas

- Non-Detect
- Detect < 1/2-BCL
- >= 1/2-BCL and < BCL
- >= BCL and < 10x BCL
- >= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

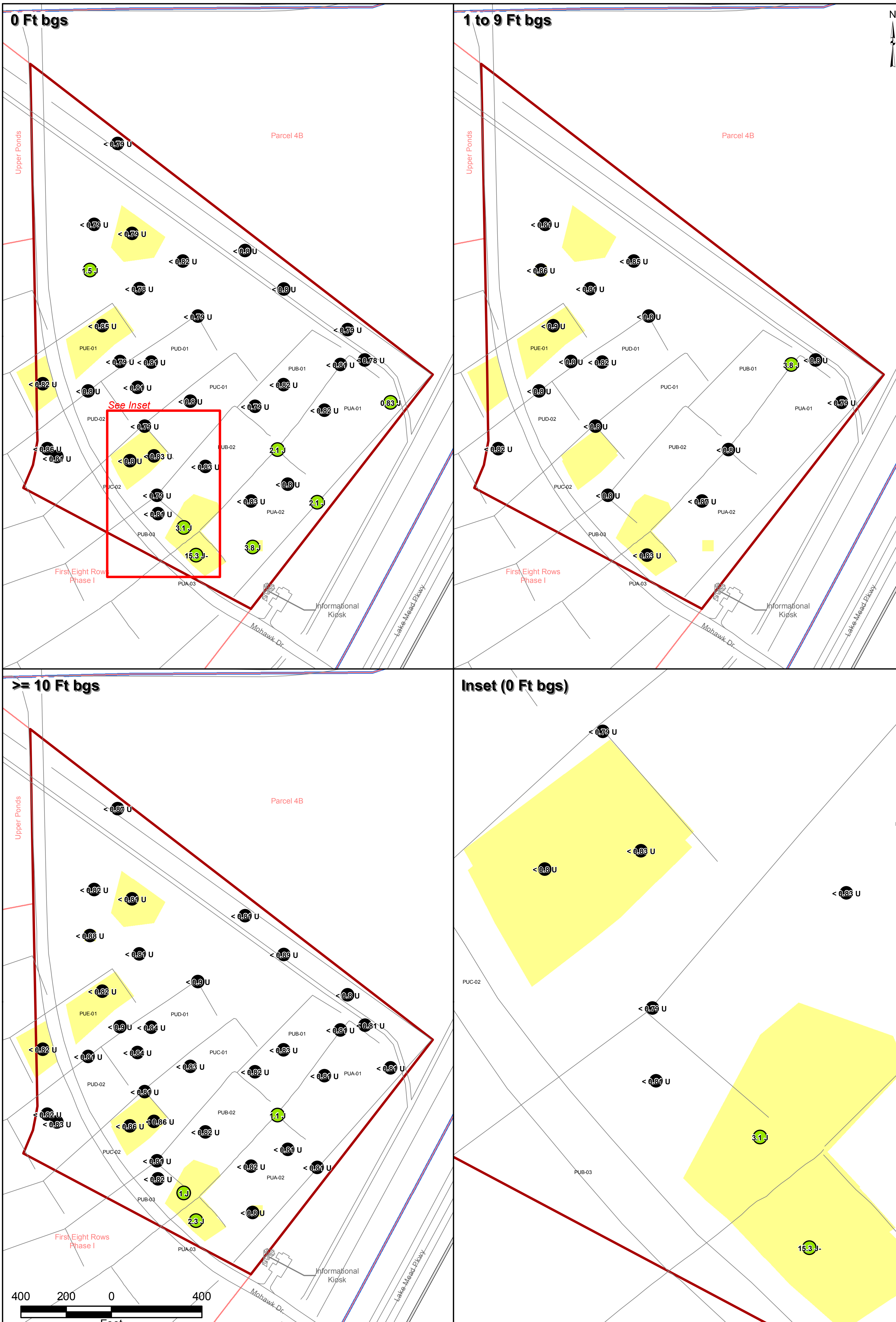
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-7

ACETONE
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Soil Removal Areas

- Non-Detect
- Detect < 1/2-BCL
- >= 1/2-BCL and < BCL
- >= BCL and < 10x BCL
- >= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

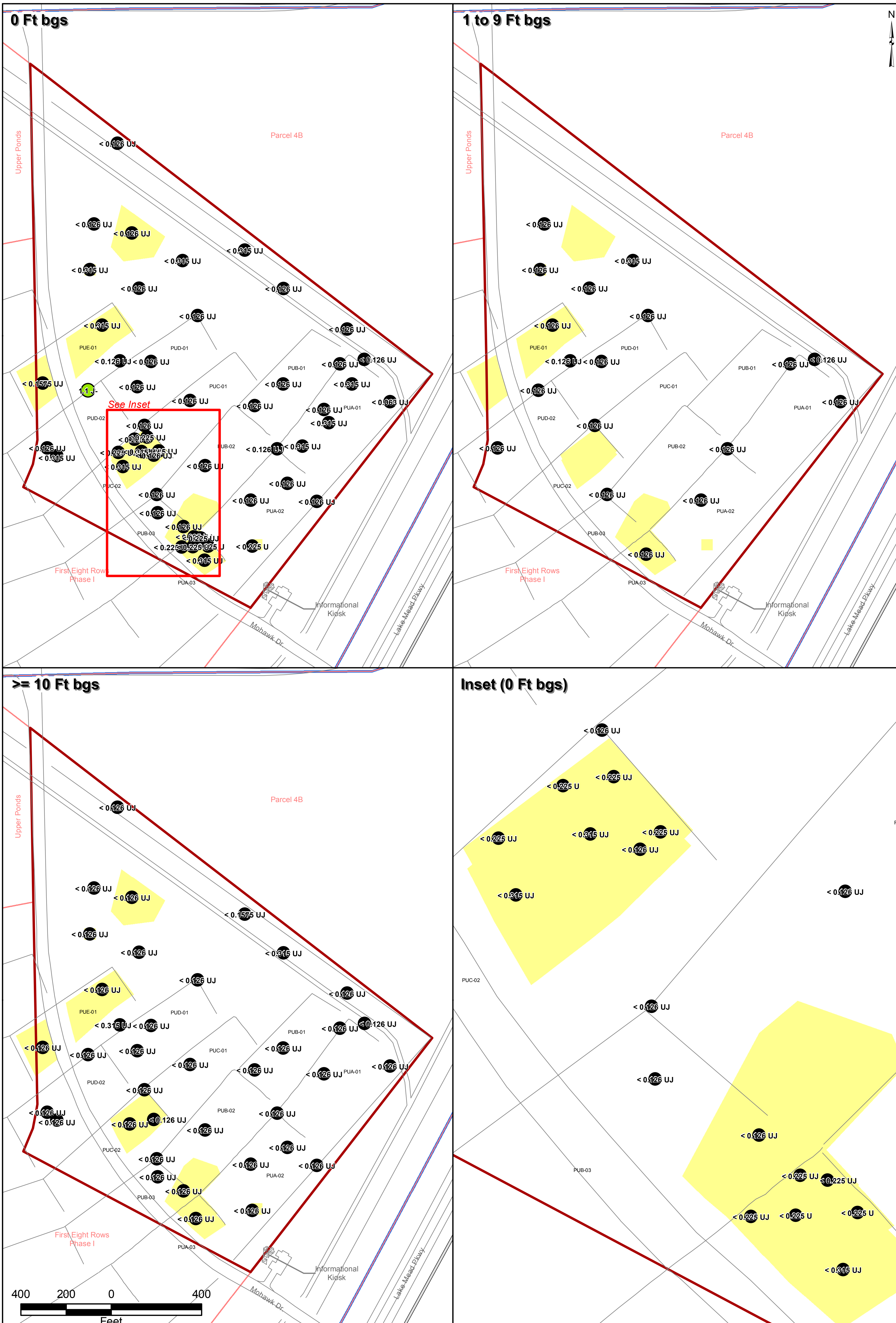
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-8

AMMONIA
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

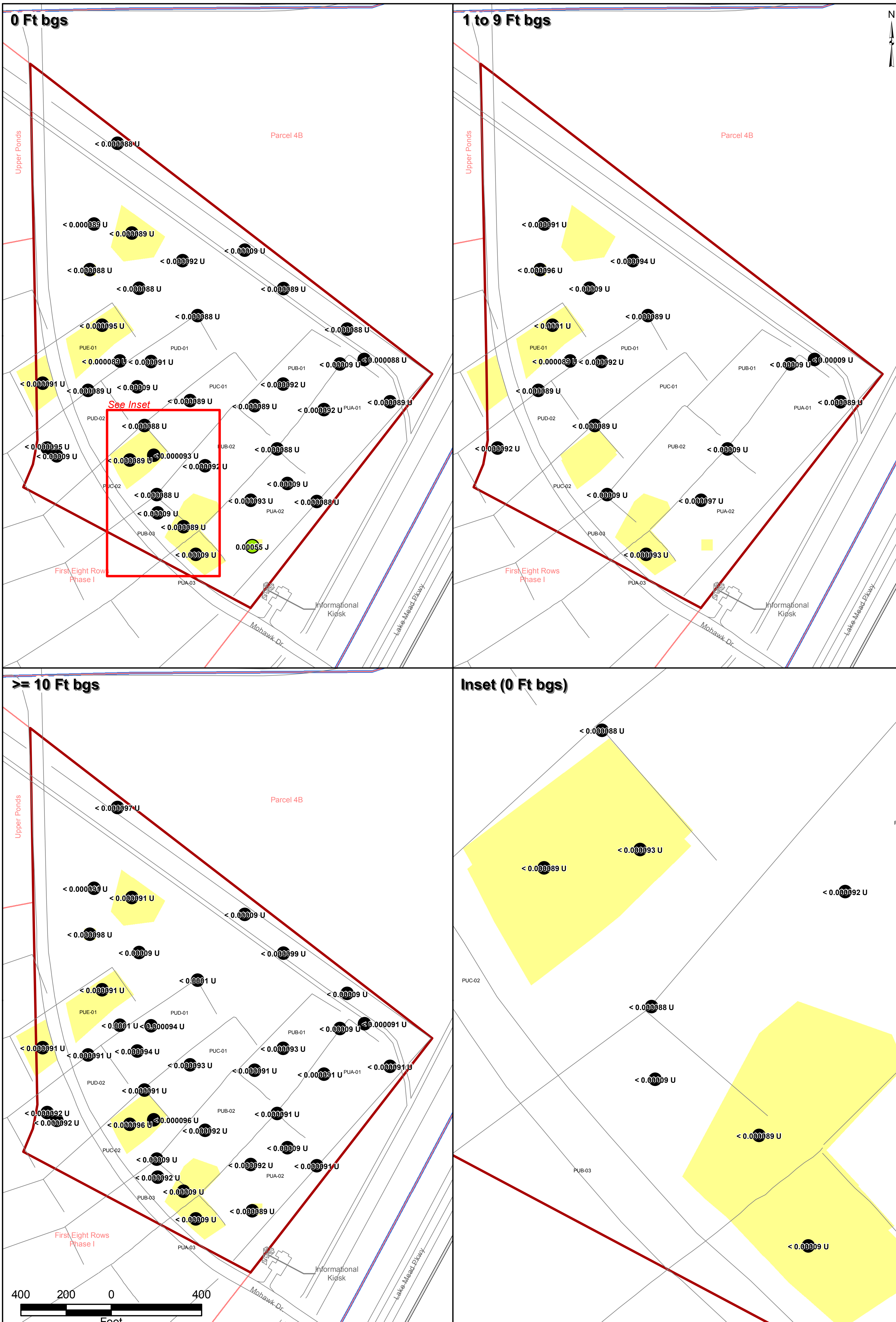
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-9

ANTIMONY
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	11/18/10	FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

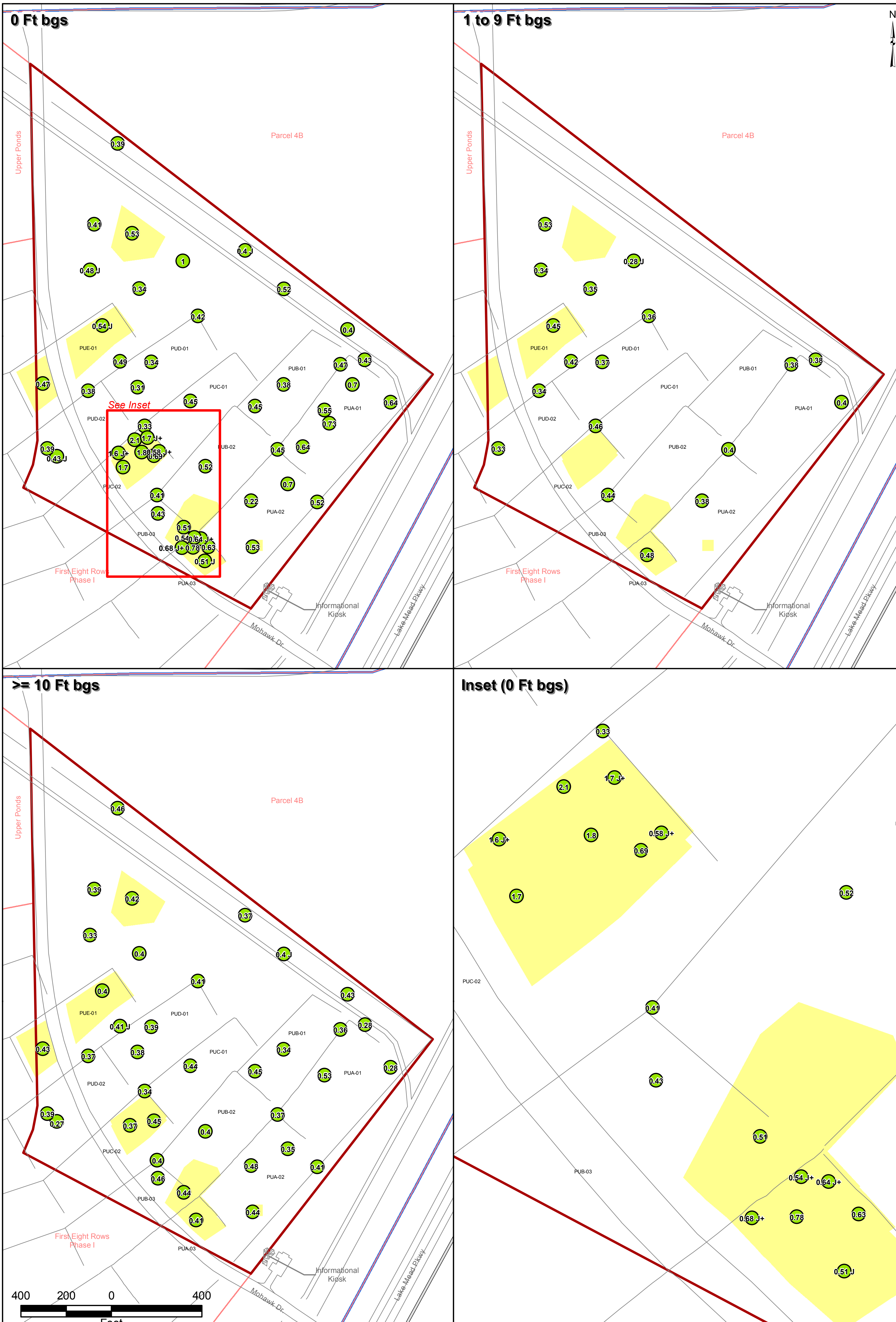
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-10

BENZENE
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Soil Removal Areas
- Non-Detect
- Detect < 1/2-BCL
- >= 1/2-BCL and < BCL
- >= BCL and < 10x BCL
- >= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

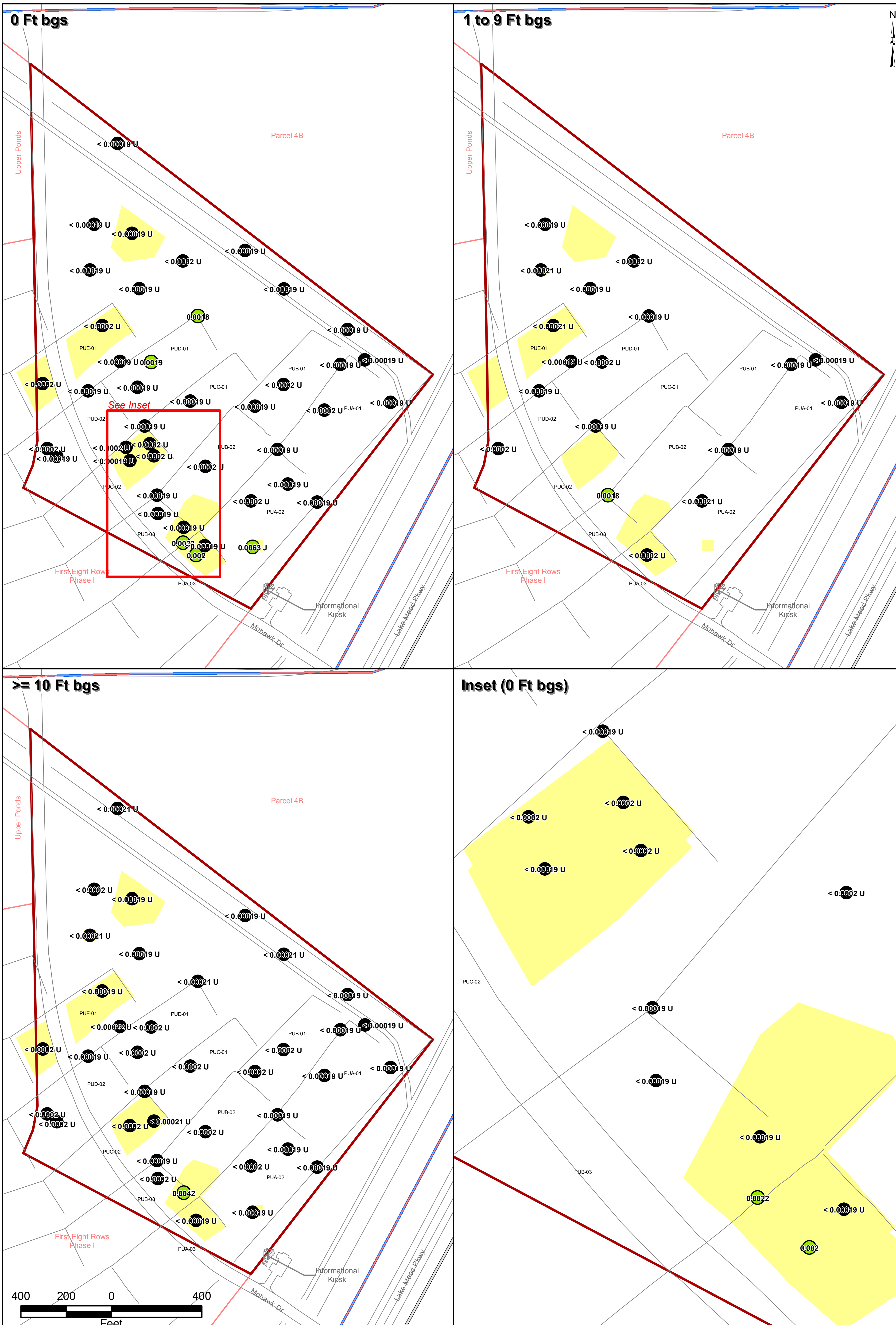
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-11

BERYLLIUM
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Soil Removal Areas

- Non-Detect
- Detect < 1/2-BCL
- >= 1/2-BCL and < BCL
- >= BCL and < 10x BCL
- >= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

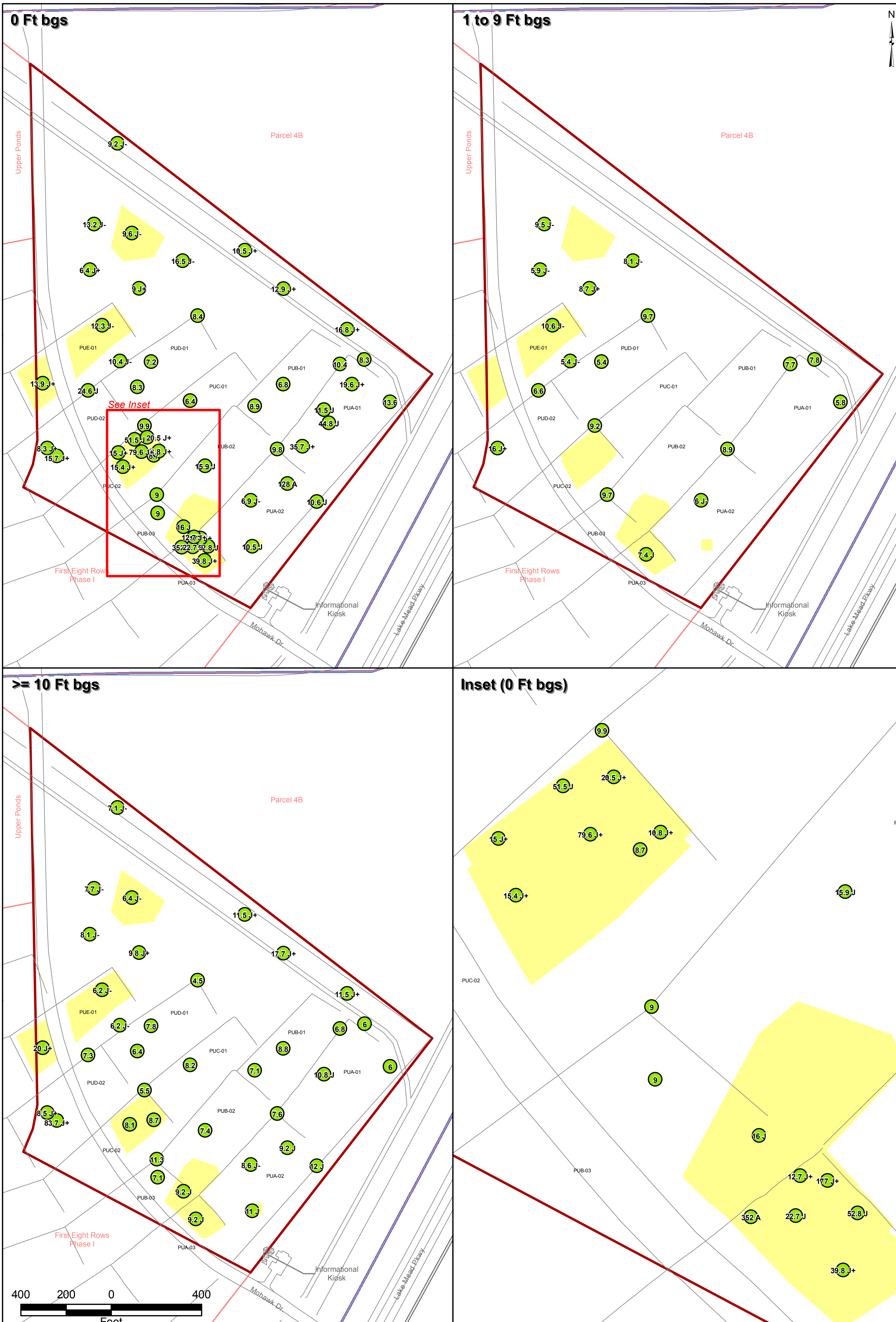
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-12

beta-BHC
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

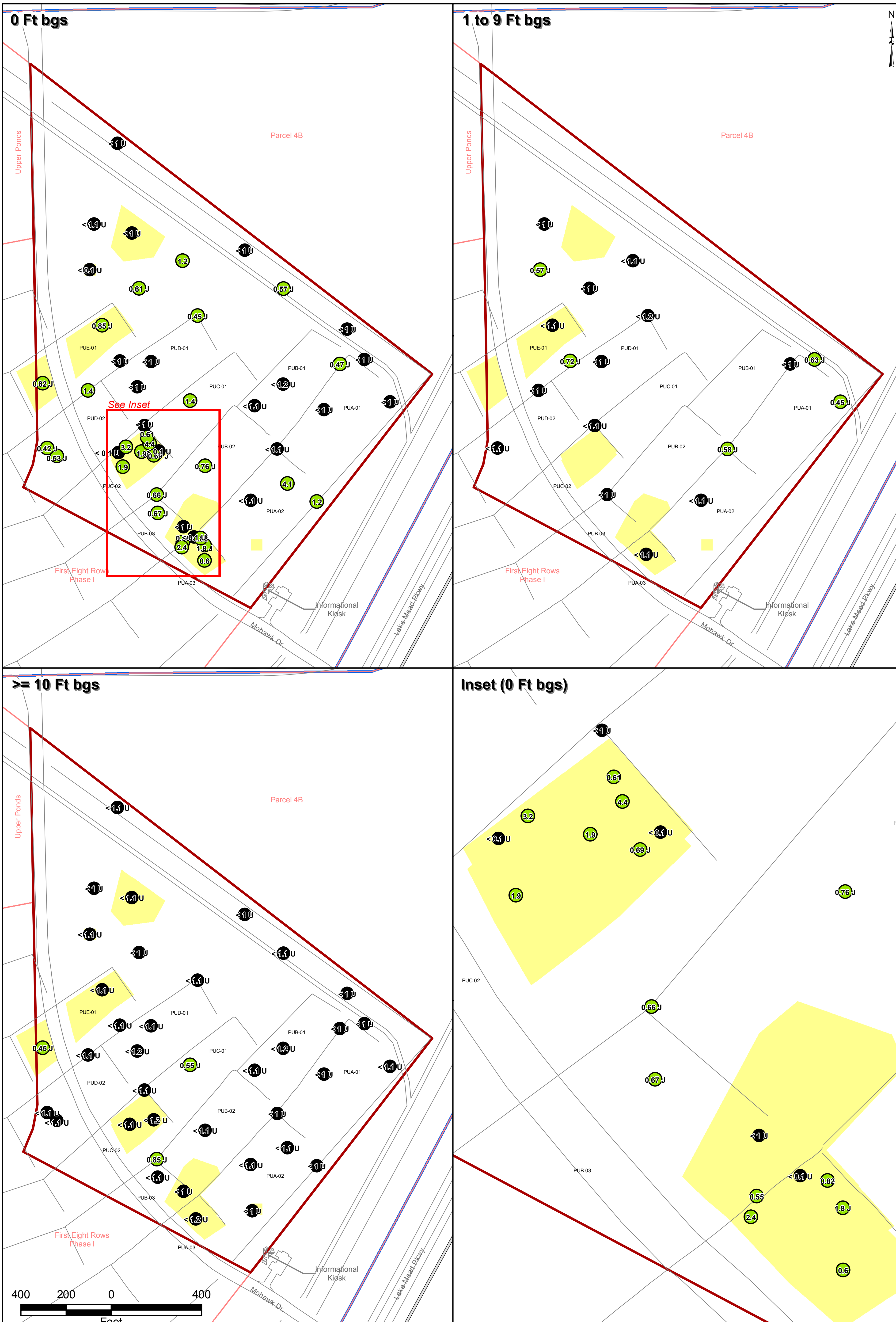
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-13

CHROMIUM (TOTAL) SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

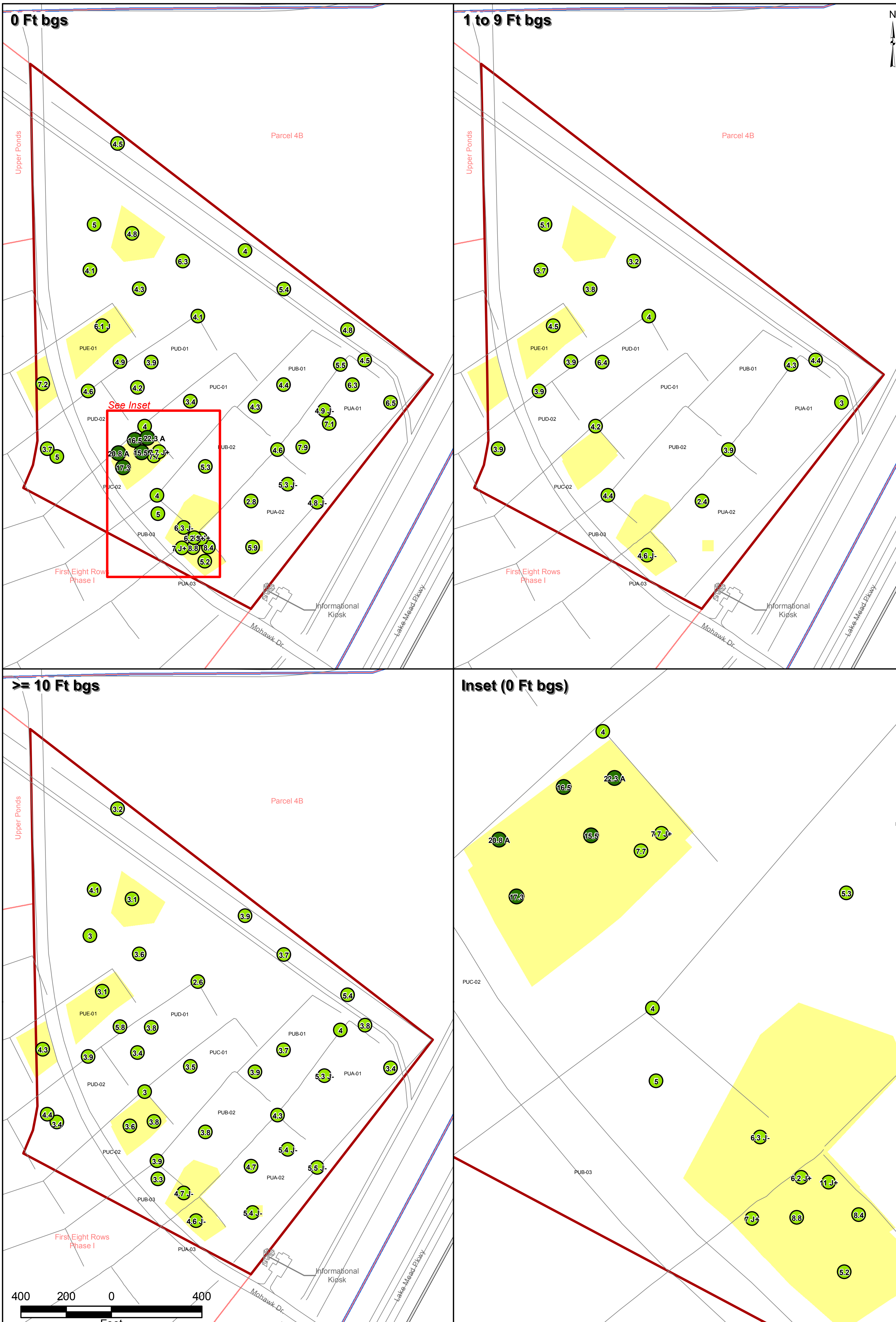
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-14

CHROMIUM (VI)
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	11/18/10	FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

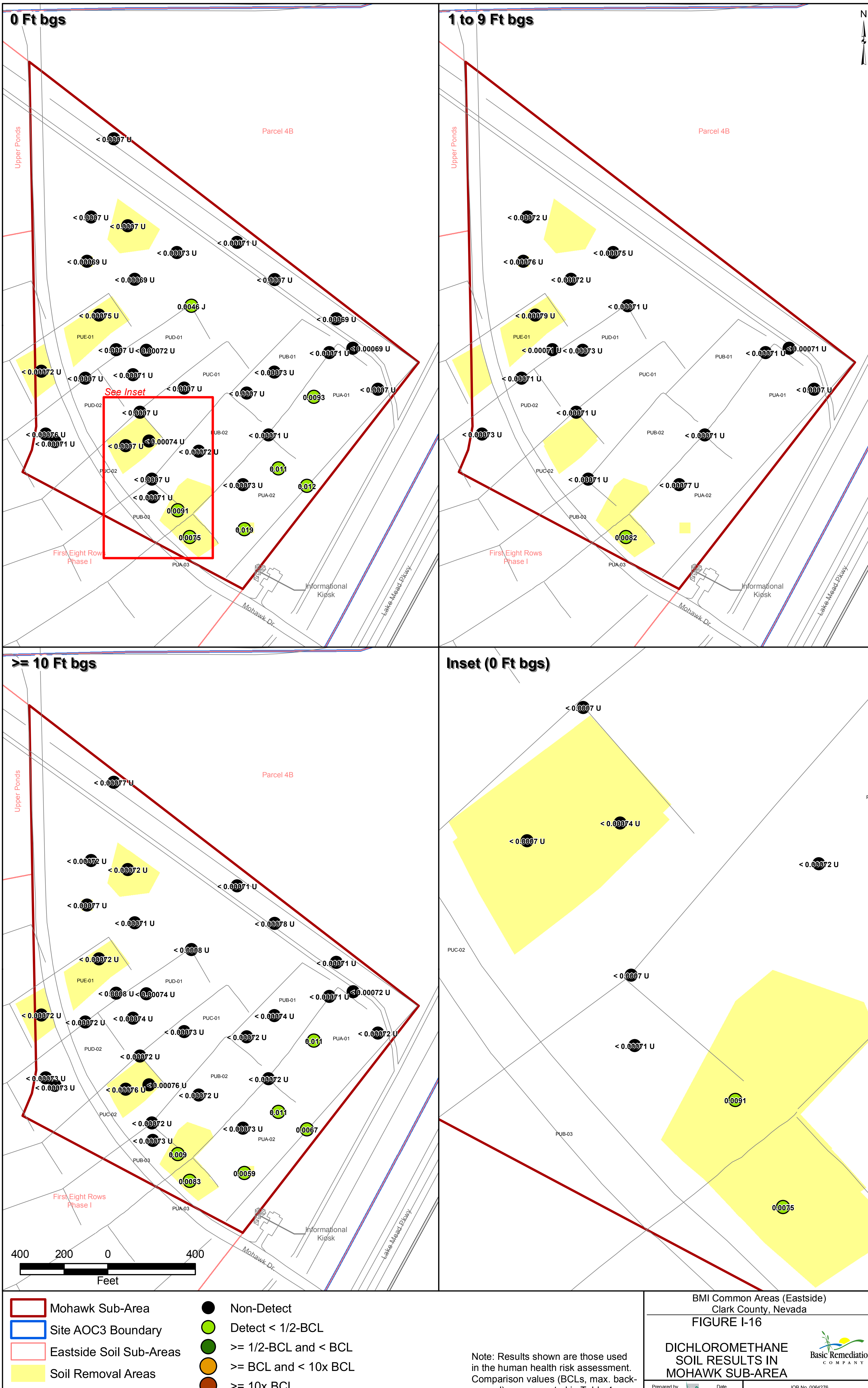
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-15

COBALT
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

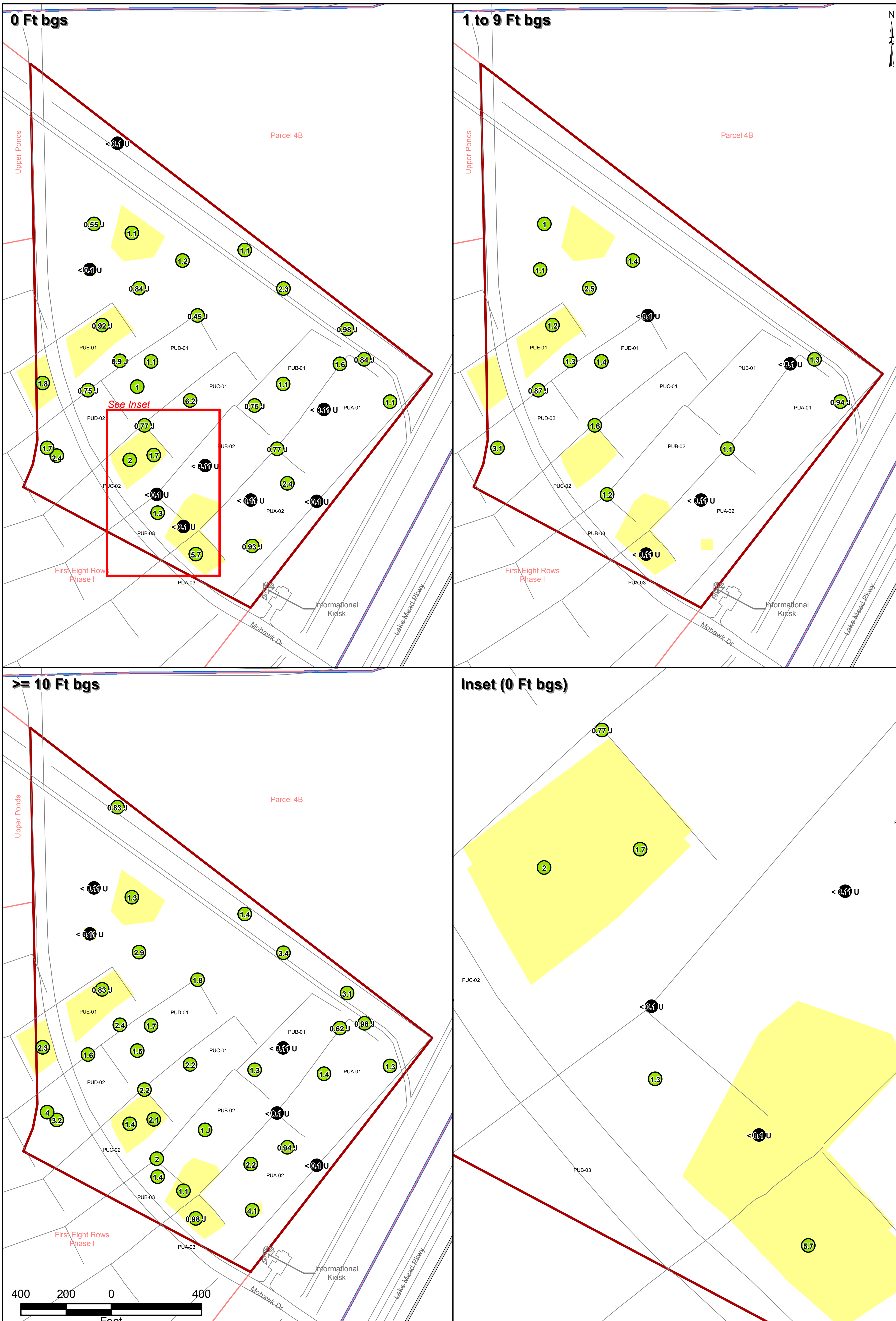
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-16

DICHLOROMETHANE SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. back-ground) are presented in Table 4.

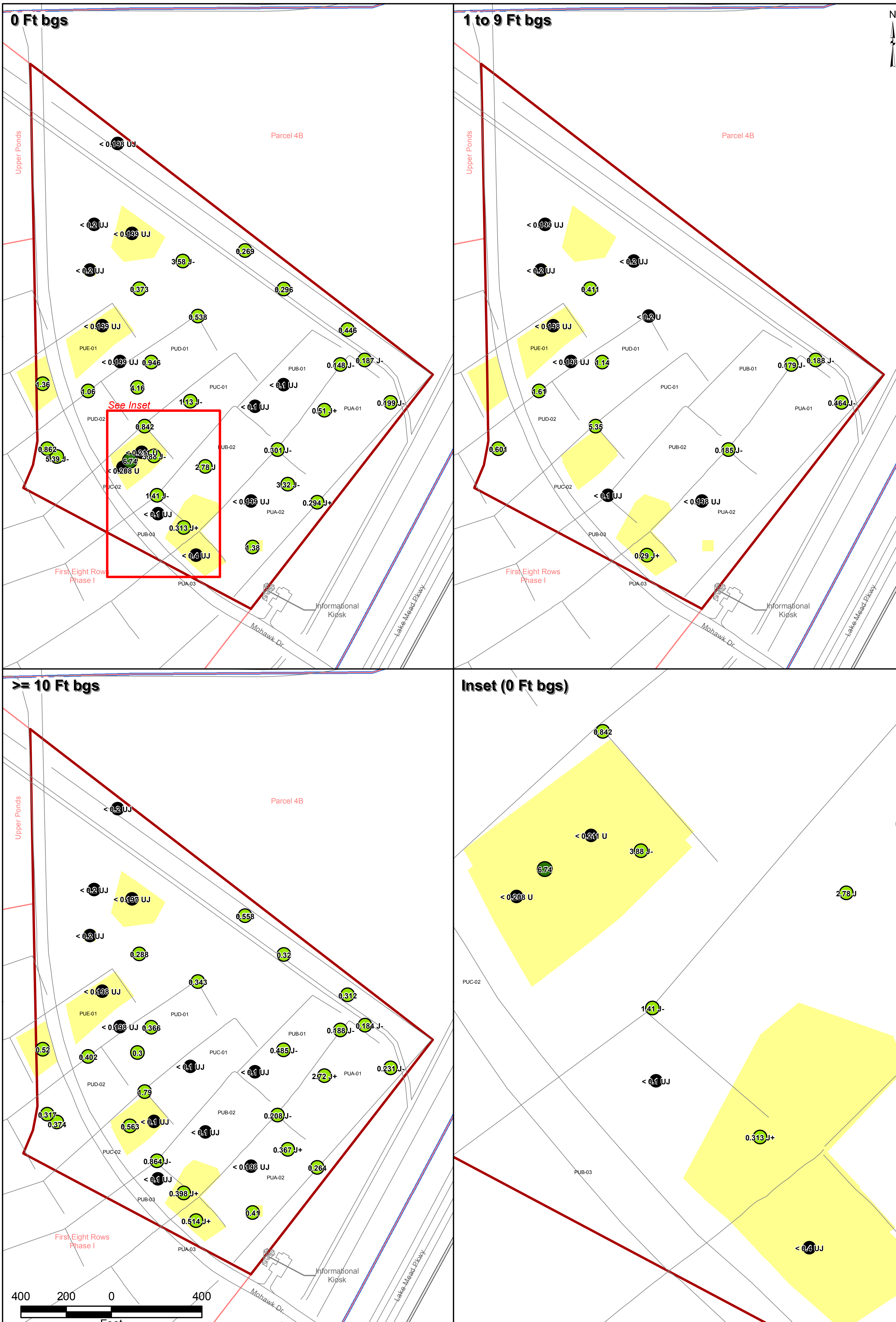
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-17

FLUORIDE
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

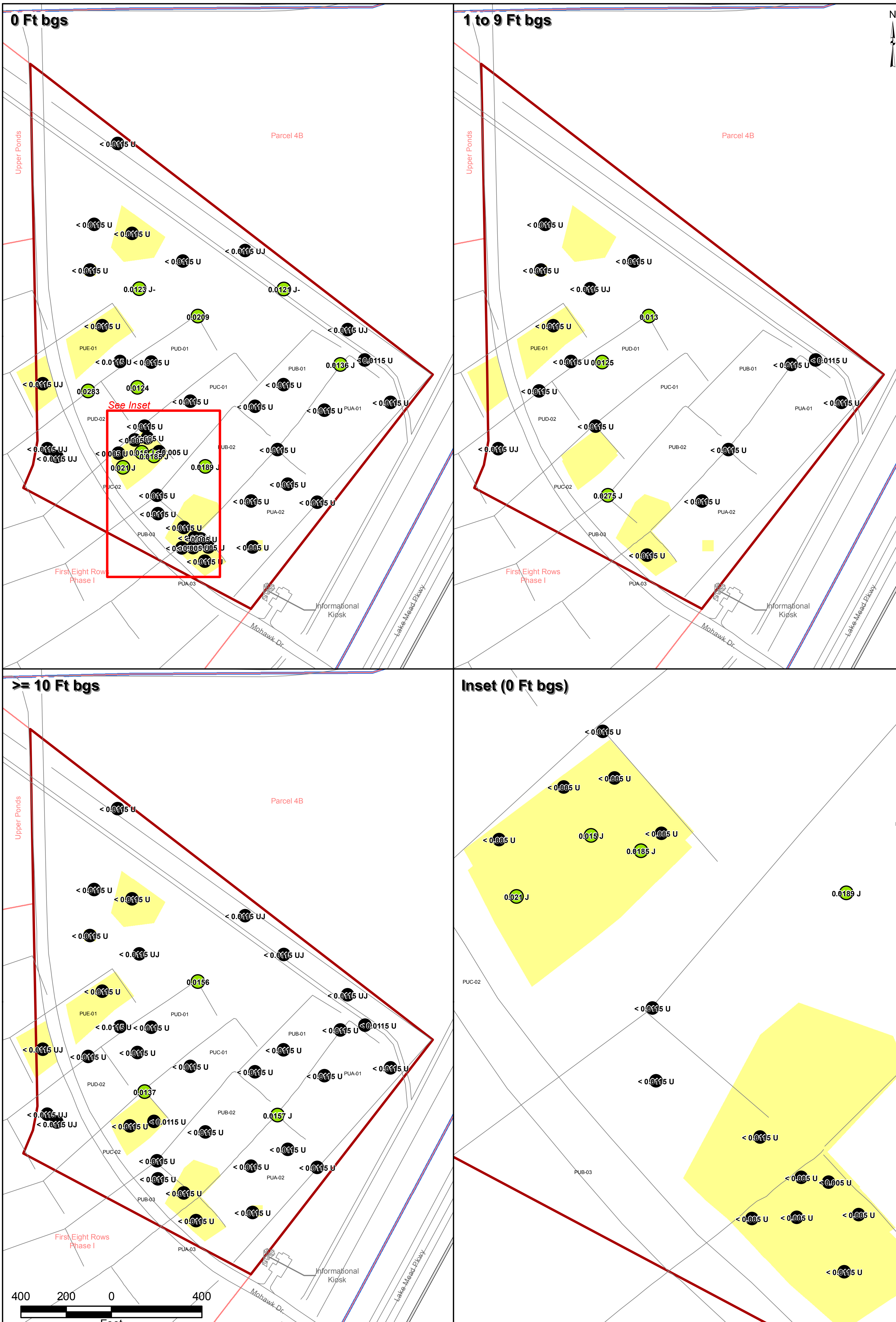
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-18

FORMALDEHYDE SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. back-ground) are presented in Table 4.

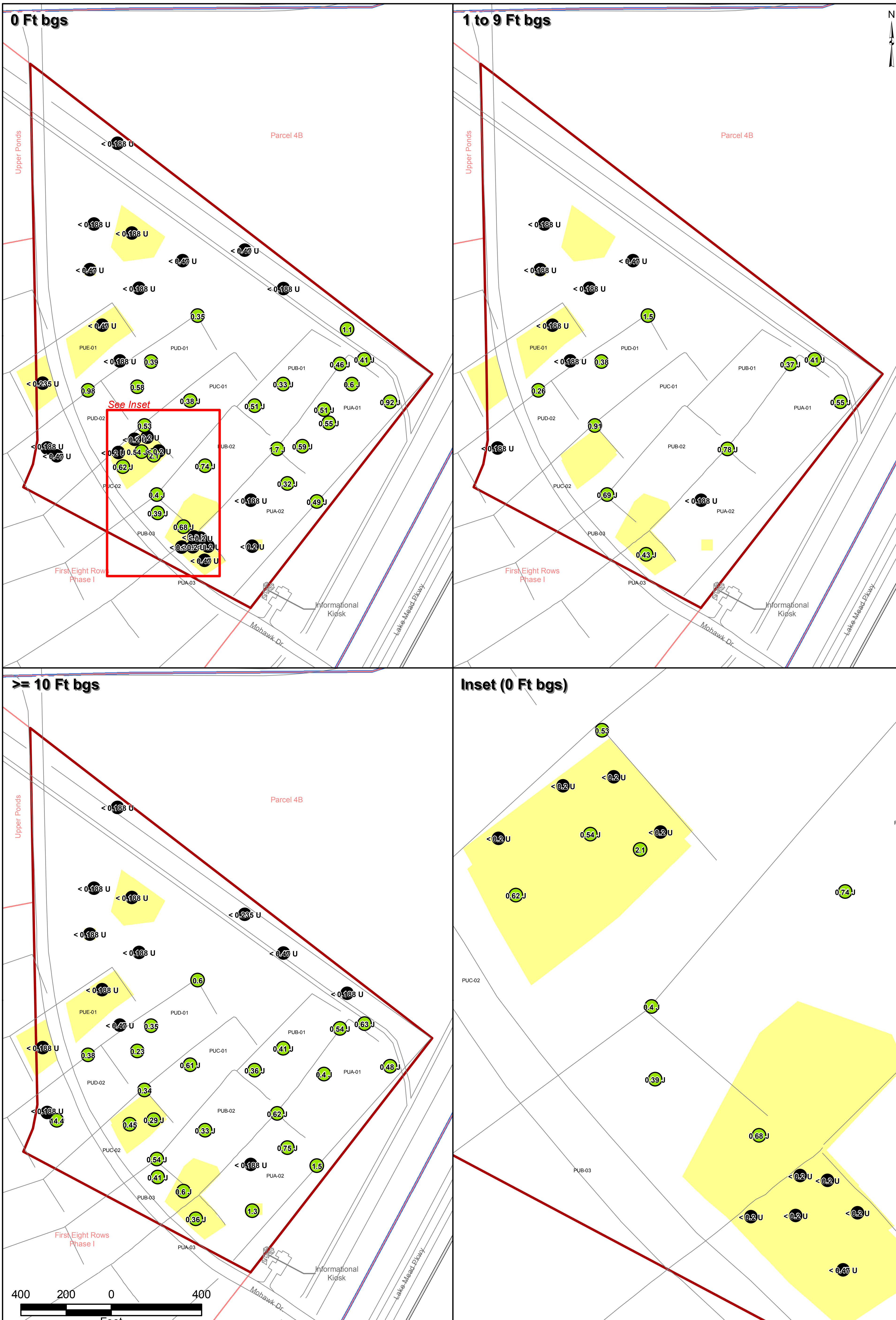
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-19

MERCURY
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation
COMPANY

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	11/18/10	FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

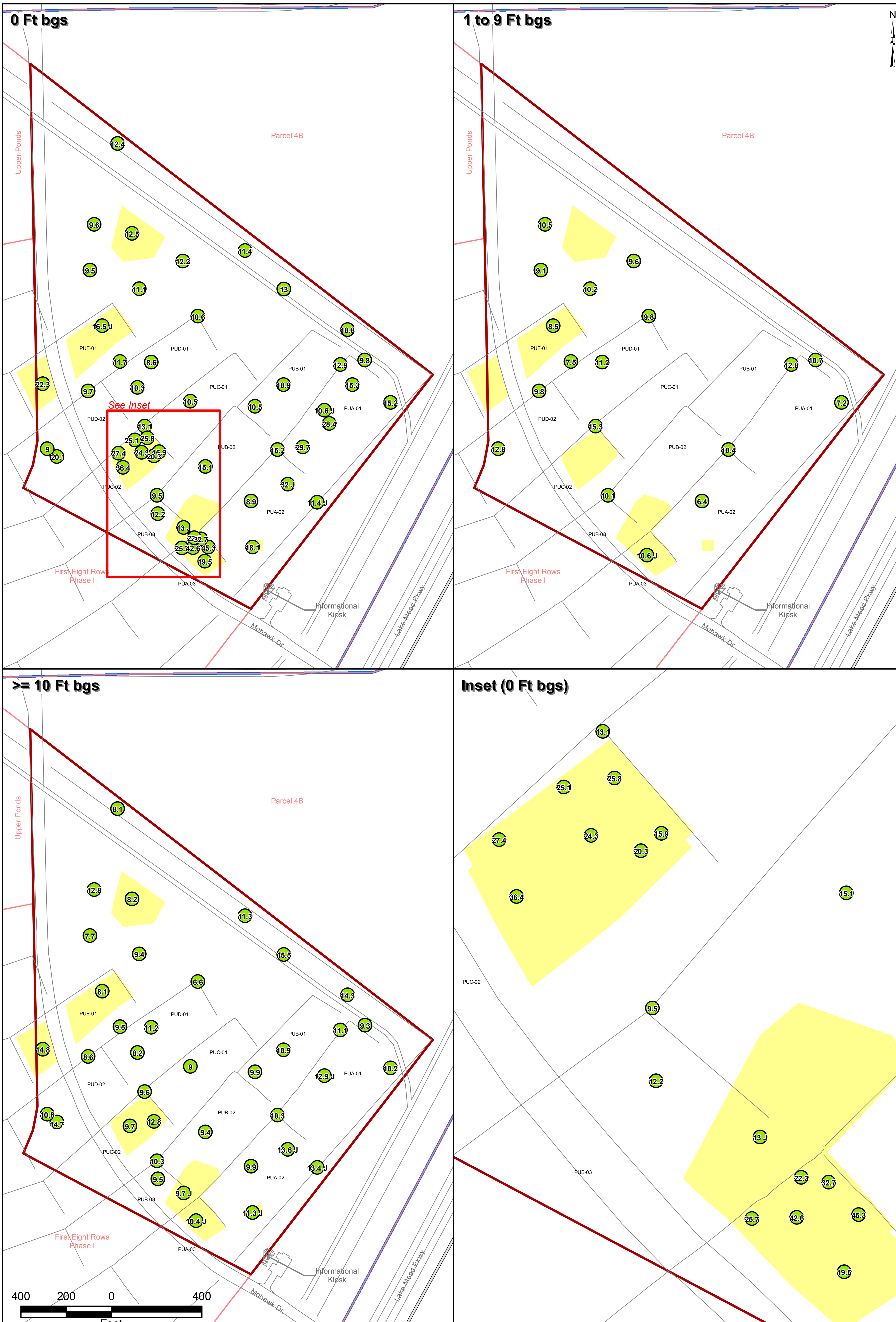
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-20

MOLYBDENUM SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

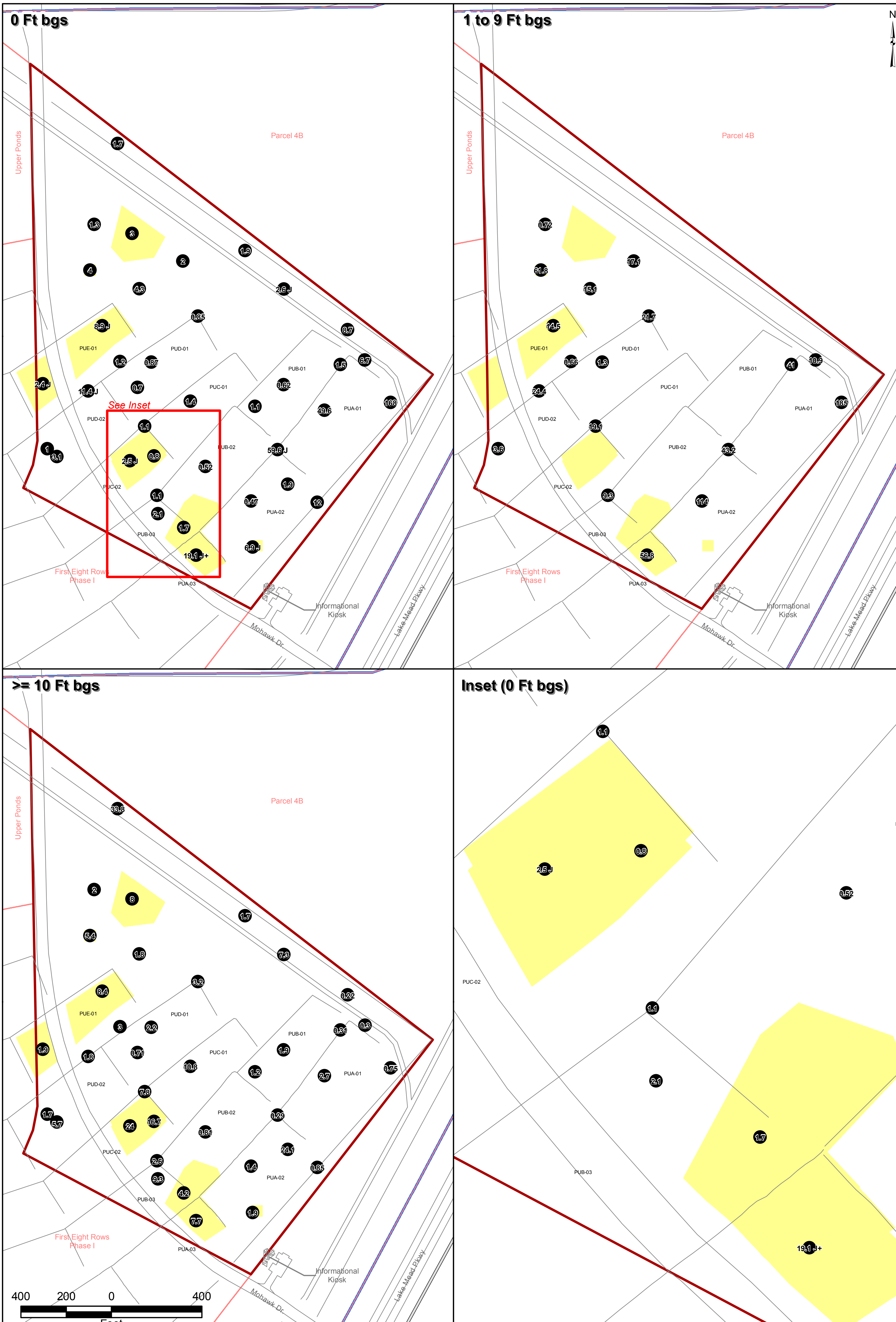
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-21

NICKEL
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

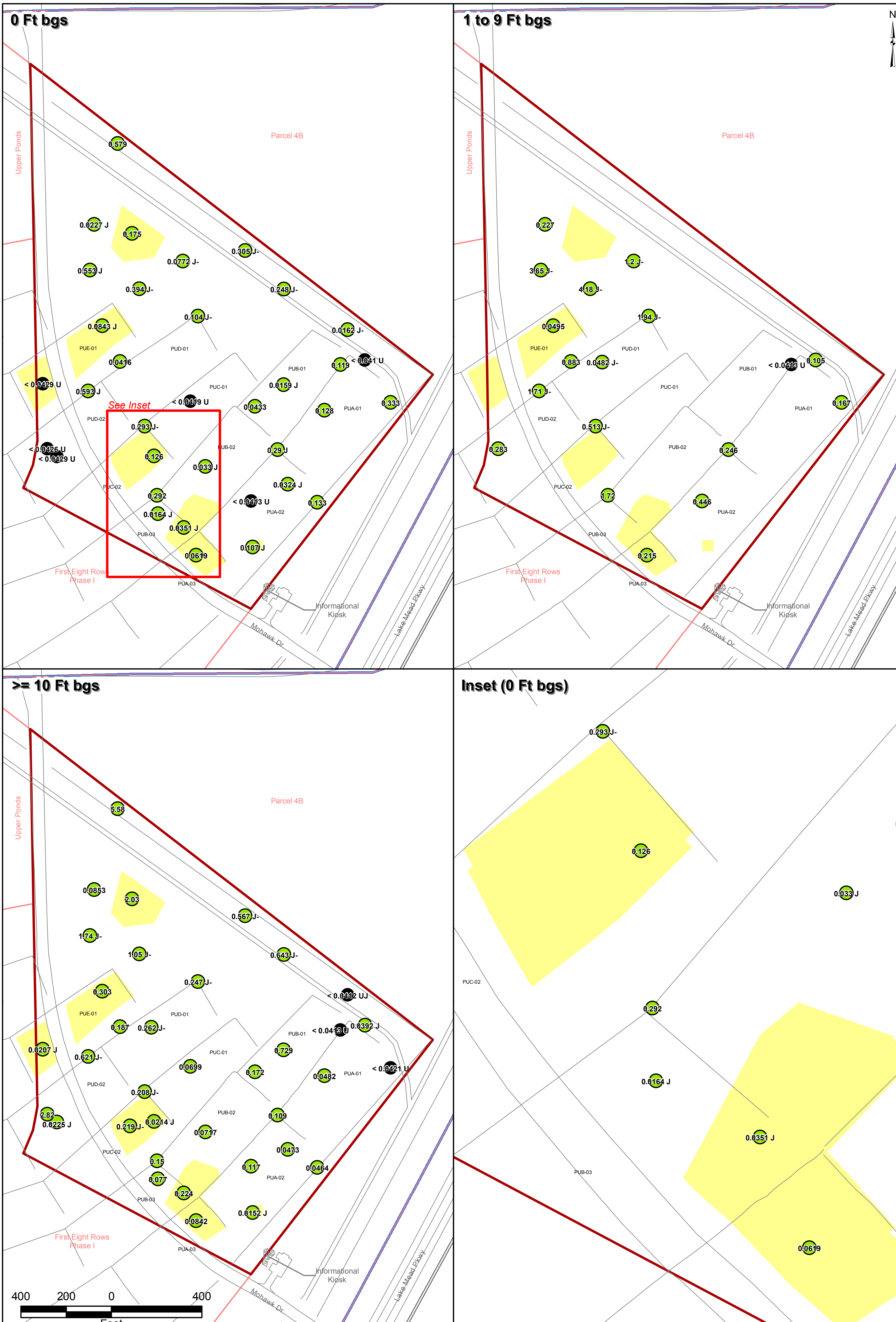
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-22

NITRATE (as N)
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by		Date	JOB No. 0064276
MKJ (ERM)	ERM	11/18/10	FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

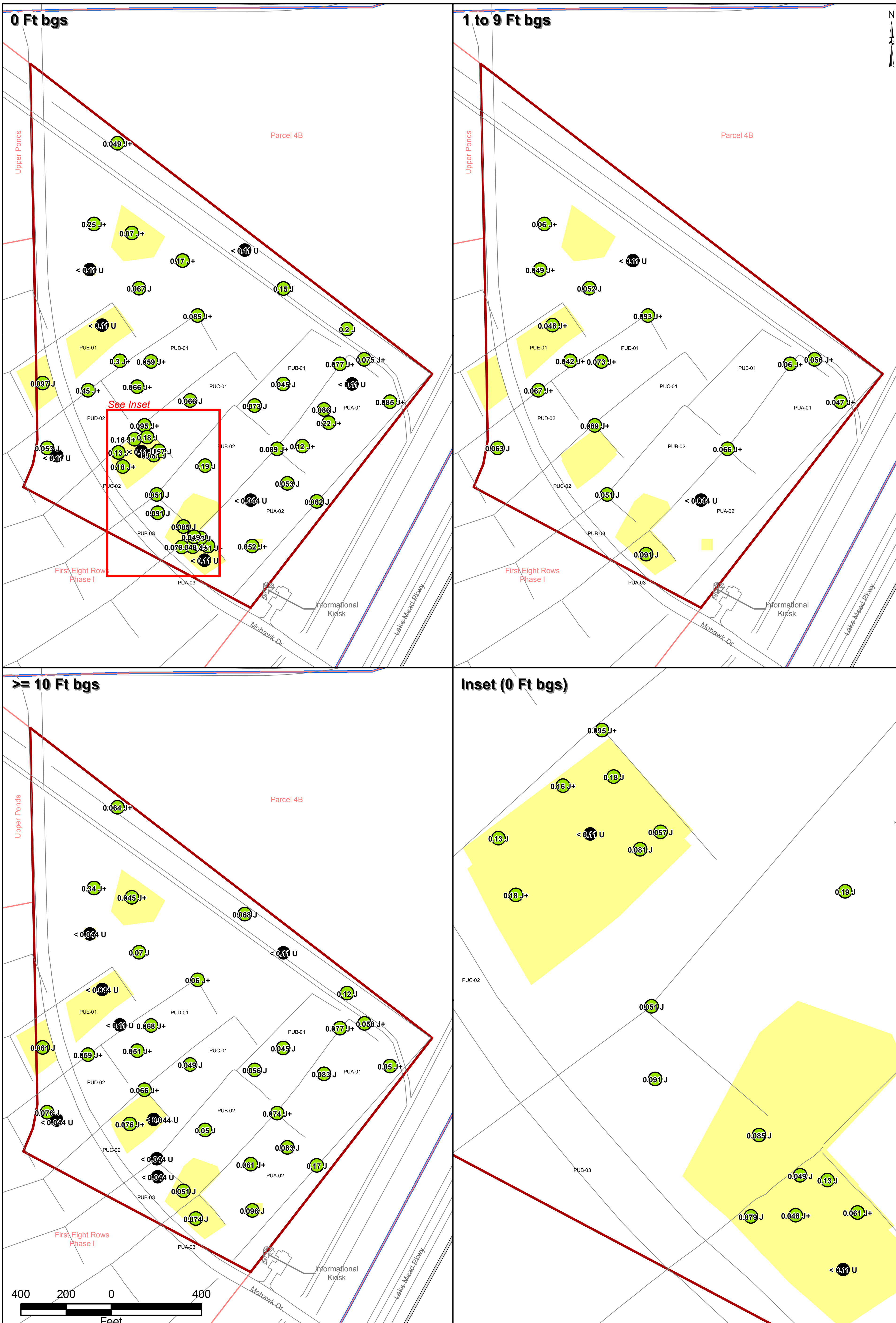
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-23

PERCHLORATE SOIL RESULTS IN MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

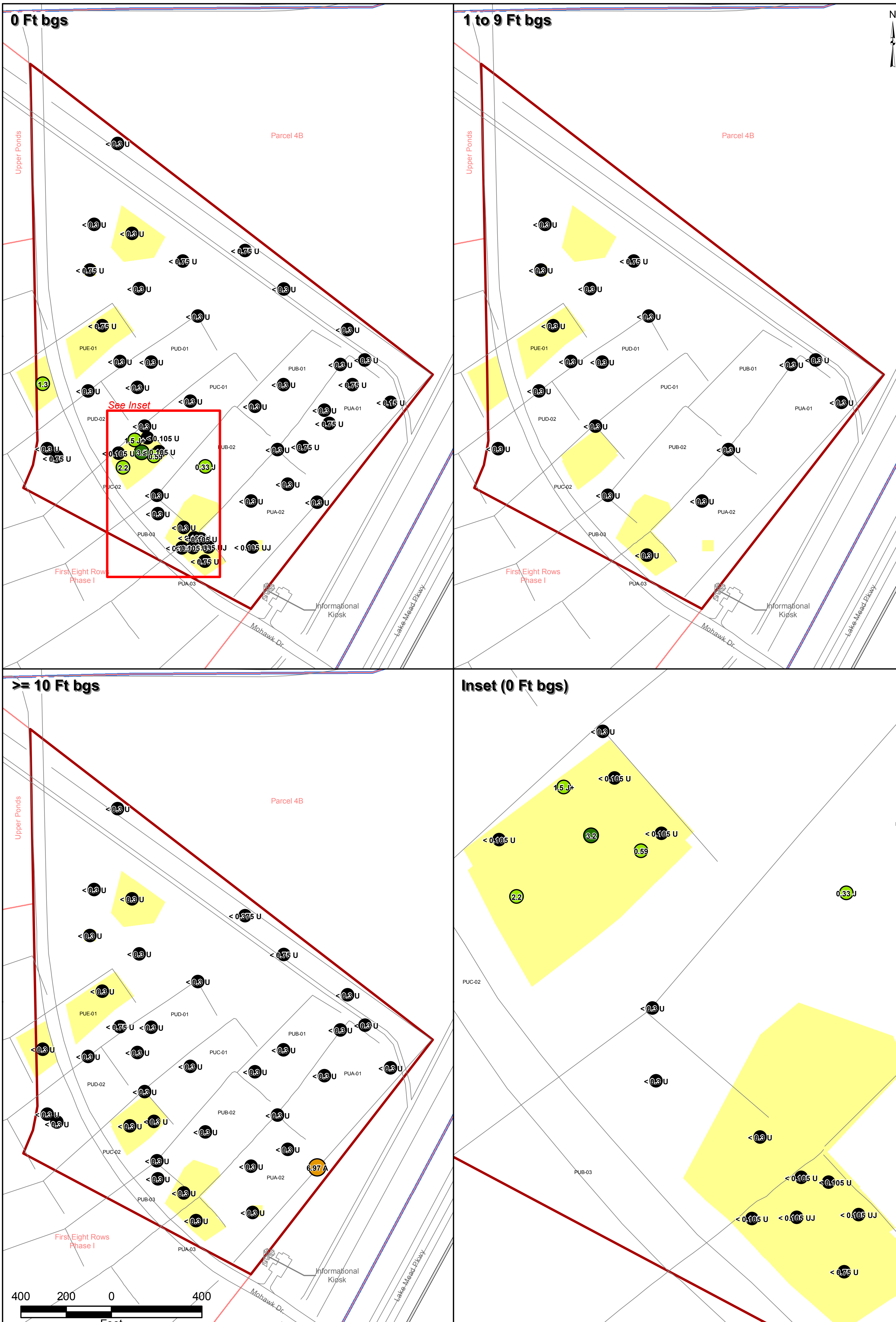
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-24

SILVER
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

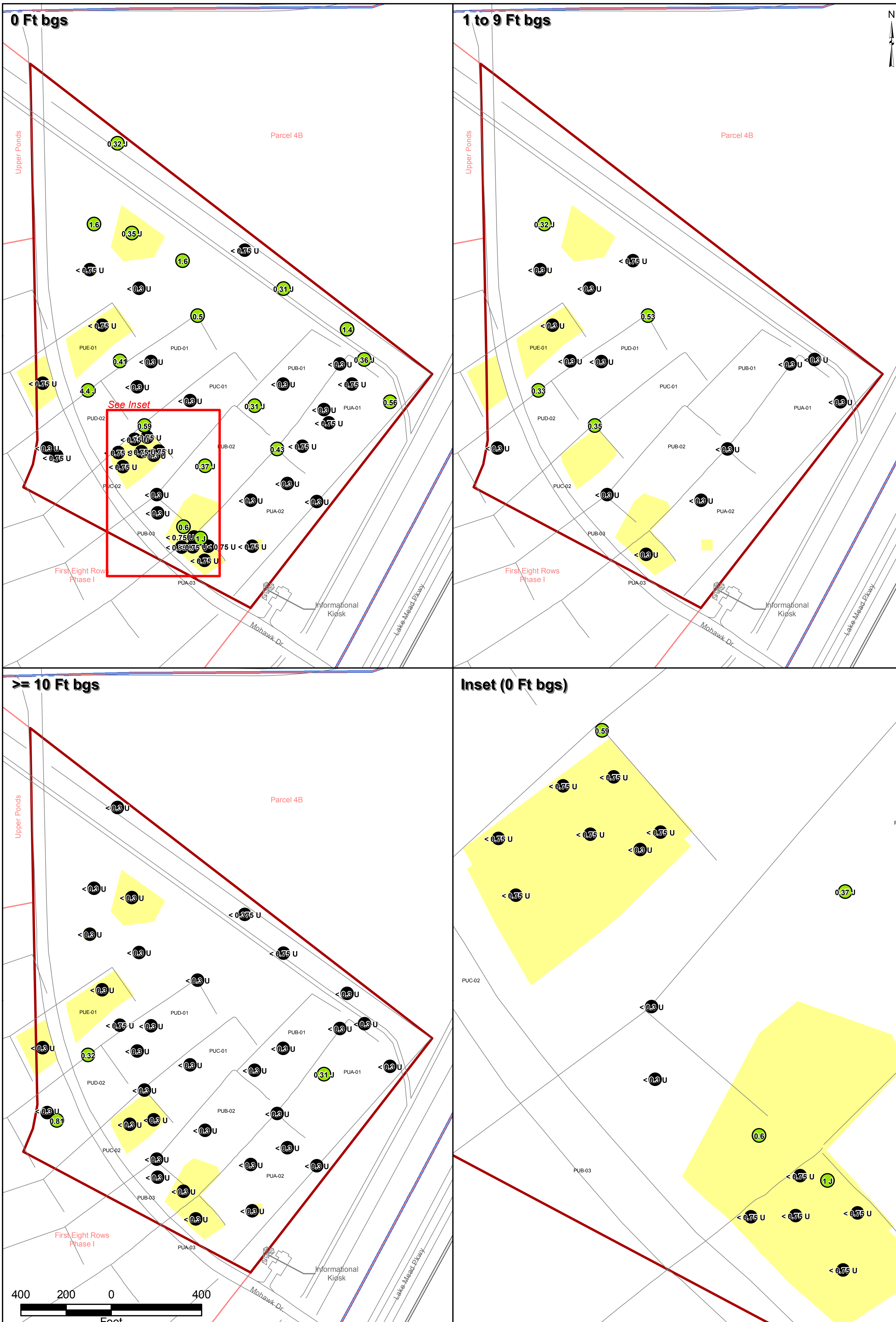
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-25

THALLIUM
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

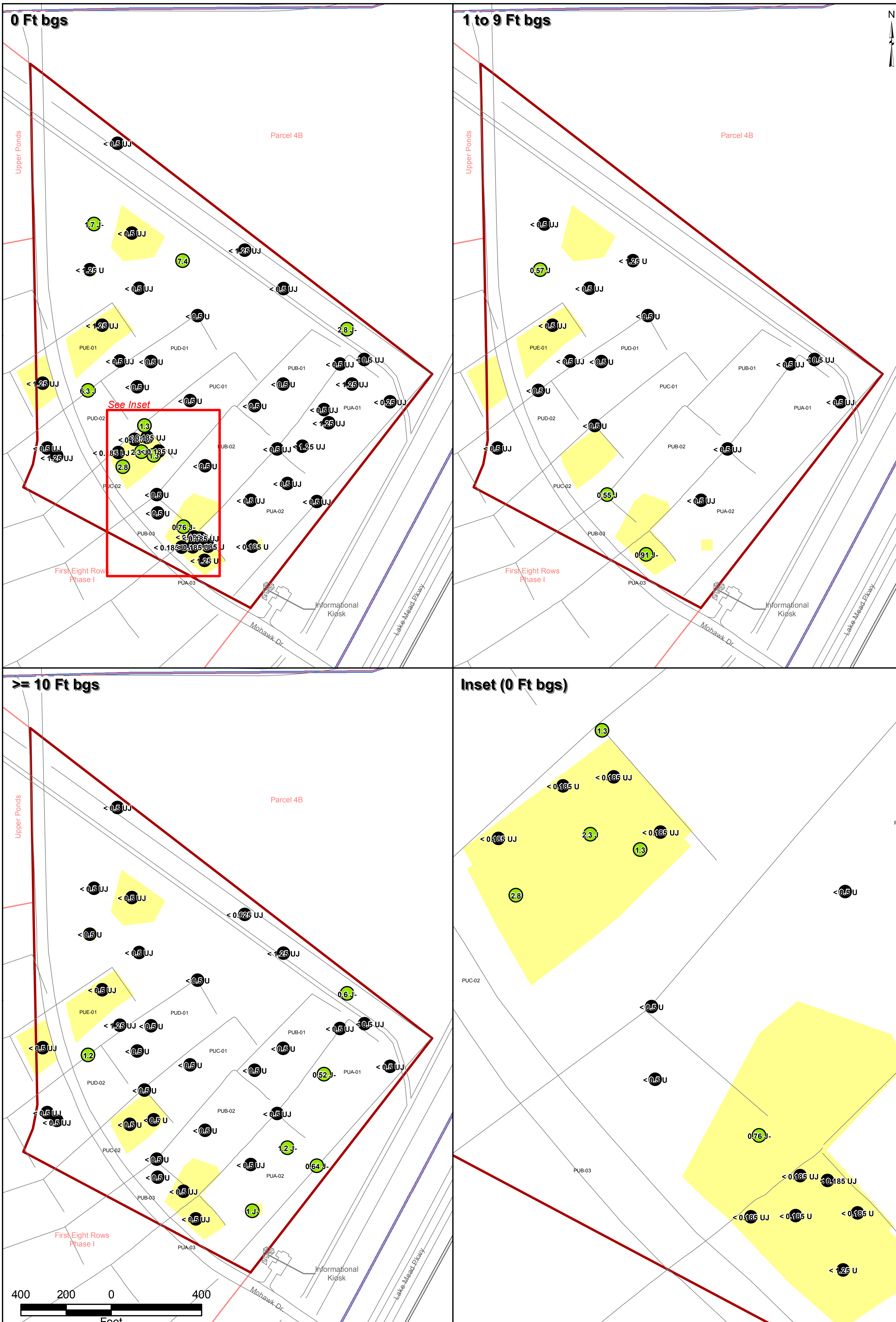
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-26

TIN
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

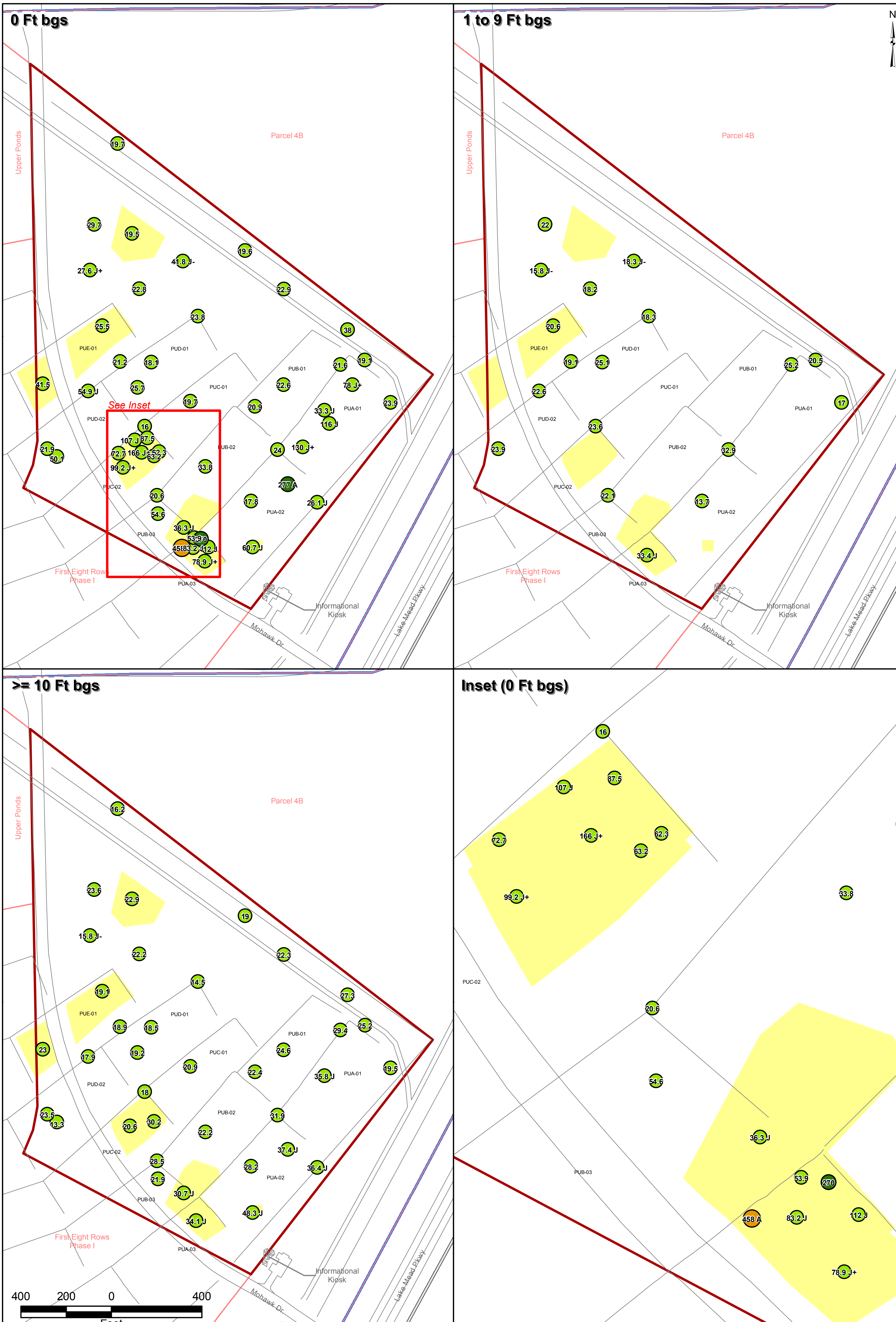
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-27

TUNGSTEN
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area
Site AOC3 Boundary
Eastside Soil Sub-Areas
Soil Removal Areas

Non-Detect
Detect < 1/2-BCL
>= 1/2-BCL and < BCL
>= BCL and < 10x BCL
>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

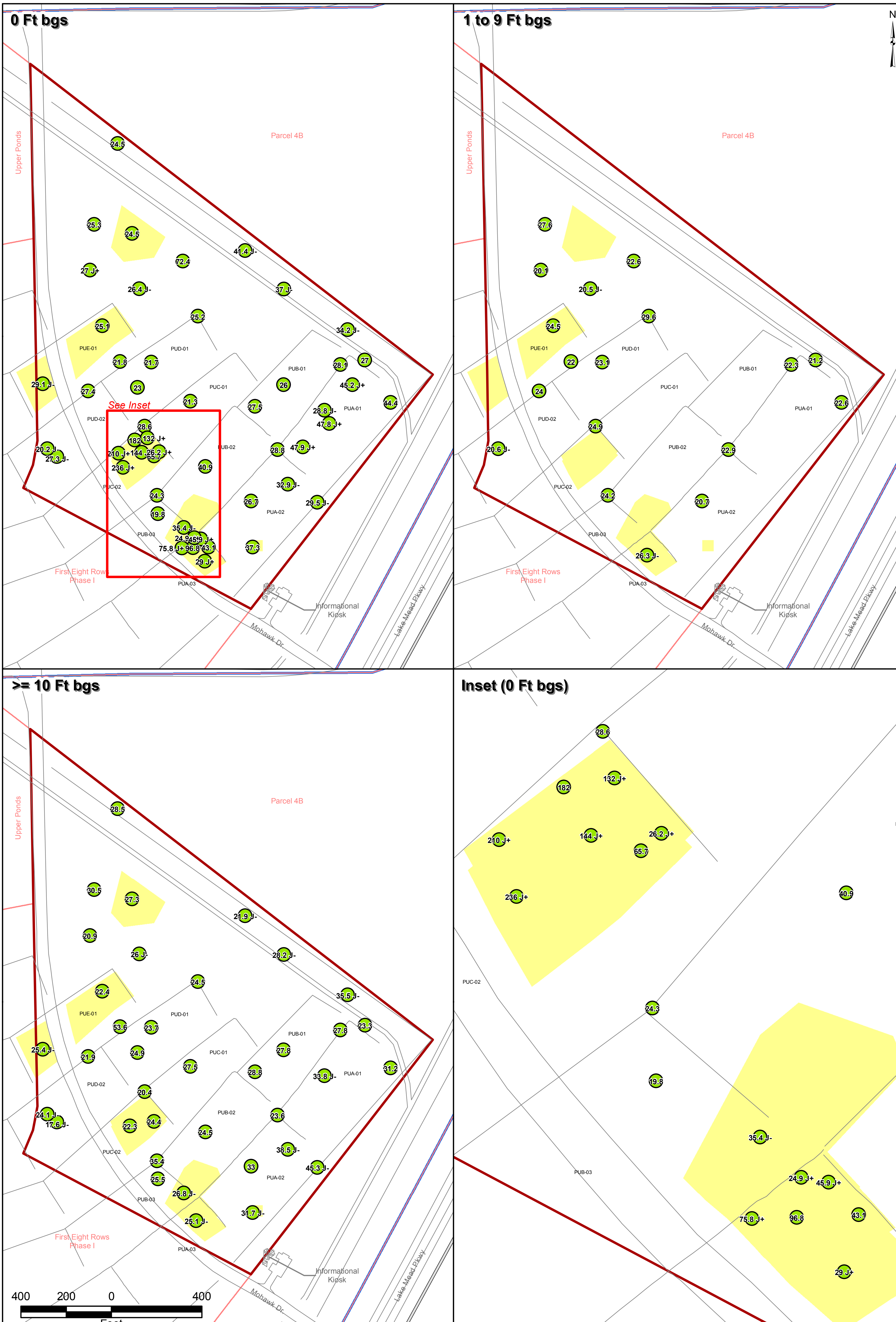
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-28

VANADIUM
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < 1/2-BCL
Eastside Soil Sub-Areas	>= 1/2-BCL and < BCL
Soil Removal Areas	>= BCL and < 10x BCL
	>= 10x BCL

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

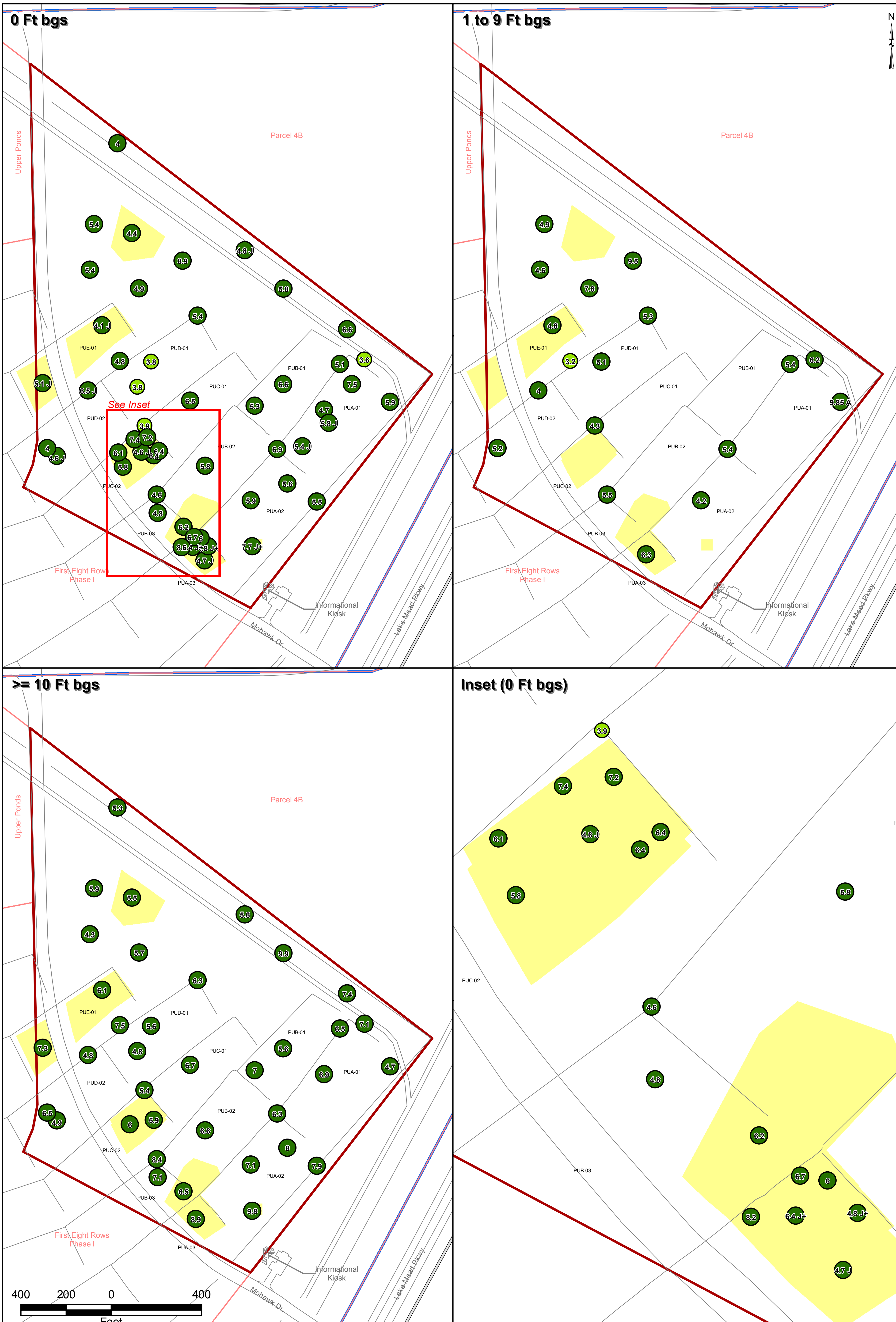
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-29

ZINC
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Mohawk Sub-Area	Non-Detect
Site AOC3 Boundary	Detect < BCL
Eastside Soil Sub-Areas	>= BCL and < 10x BCL
Soil Removal Areas	>= 10x BCL and < Max. Background
	>= Max. Background

Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4.

Although not a COPC in the human health risk assessment, arsenic is presented here because it is a primary chemical of interest for the project.

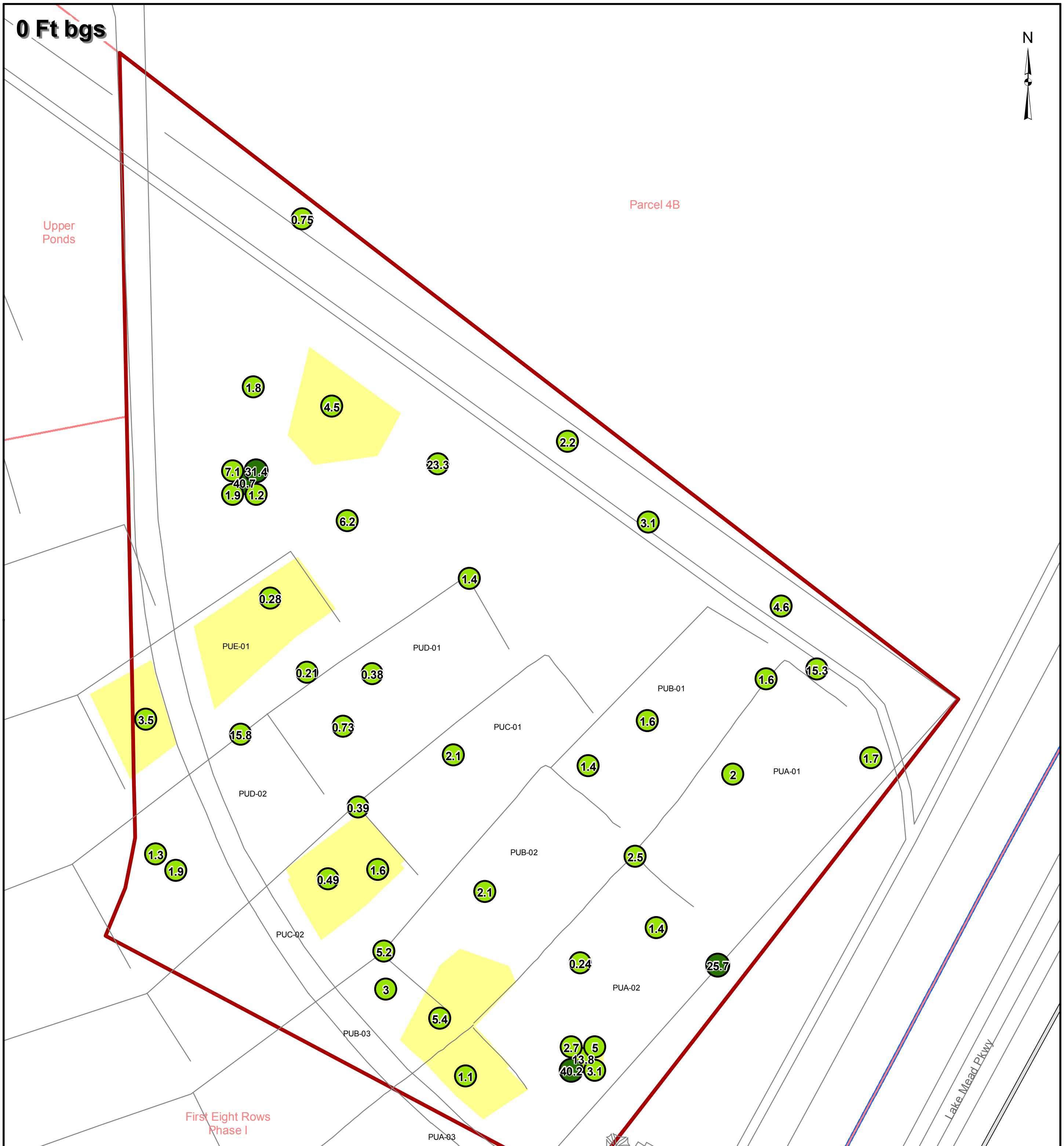
BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-30

ARSENIC
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation COMPANY

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD



Note: Results shown are those used in the human health risk assessment. Comparison values (BCLs, max. background) are presented in Table 4. Although not a COPC in the human health risk assessment, TCDD TEQ is presented here because it is a primary chemical of interest for the project.

- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Soil Removal Areas

- Non-Detect
- Detect < 1/2-BCL
- >= 1/2-BCL and < BCL
- >= BCL and < 10x BCL
- >= 10x BCL

BMI Common Areas (Eastside)
Clark County, Nevada

FIGURE I-31

TCDD TEQ
SOIL RESULTS IN
MOHAWK SUB-AREA

Basic Remediation Company

Prepared by MKJ (ERM) | ERM | Date 11/18/10 | JOB No. 0064276 | FILE: GIS/BRC/MOHAWK/APPENDIX_I.MXD

APPENDIX J

VAPOR INTRUSION TIER 2 ASSESSMENT AND COMPARISON STUDY AREA RESULTS

LIST OF TABLES (APPENDIX J)

TABLE J-1
TIER 2 ASSESSMENT FOR THE MOHAWK SUB-AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	USEPA 2002 VI SL[1]	AA-18 N Feb 2007	AA-18 FD Feb 2007	MCF-12B N Feb 2007
Acetaldehyde	ug/L	340	3.8 J	4.1 J	< 30 U
4,4-DDE	ug/L	29	< 0.05 U	< 0.05 U	< 0.05 U
Aldrin	ug/L	0.071	< 0.05 U	< 0.05 U	< 0.05 U
alpha-BHC	ug/L	3.1	< 0.05 U	< 0.05 U	< 0.05 U
Chlordane	ug/L	12	< 0.5 U	< 0.5 U	< 0.5 U
Dieldrin	ug/L	0.86	< 0.05 U	< 0.05 U	< 0.05 U
Heptachlor	ug/L	0.4	< 0.05 U	< 0.05 U	< 0.05 U
Lindane	ug/L	11	< 0.05 U	< 0.05 U	< 0.05 U
2-Chlorophenol	ug/L	1,100	< 10 U	< 10 U	< 10 U
2-Methylnaphthalene	ug/L	3,300	< 10 U	< 10 U	< 10 U
Acetophenone	ug/L	800,000	< 10 U	< 10 U	< 10 U
bis(2-Chloroethoxy) methane	ug/L	0.0045	*< 10 U*	*< 10 U*	*< 10 U*
bis(2-Chloroethyl) ether	ug/L	10	< 10 U	< 10 U	< 10 U
bis(2-Chloroisopropyl) ether	ug/L	51	< 10 U	< 10 U	< 10 U
Hexachloro-1,3-butadiene	ug/L	0.33	*< 10 U*	*< 10 U*	*< 10 U*
Hexachlorobenzene	ug/L	1	*< 10 U*	*< 10 U*	*< 10 U*
Hexachlorocyclopentadiene	ug/L	50	< 10 U	< 10 U	< 10 U
Hexachloroethane	ug/L	3.8	*< 10 U*	*< 10 U*	*< 10 U*
Naphthalene	ug/L	150	< 10 U	< 10 U	< 10 U
Nitrobenzene	ug/L	2,000	< 10 U	< 10 U	< 10 U
1,1,1,2-Tetrachloroethane	ug/L	3.3	< 1 U	< 1 U	< 1 U
1,1,1-Trichloroethane	ug/L	3,100	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	ug/L	3	< 1 U	< 1 U	< 1 U
1,1,2-Trichloroethane	ug/L	5	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane	ug/L	2,200	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene	ug/L	190	< 1 U	< 1 U	< 1 U
1,2,3-Trichloropropane	ug/L	290	< 1 U	< 1 U	< 1 U
1,2,4-Trichlorobenzene	ug/L	3,400	< 1 U	< 1 U	< 1 U
1,2,4-Trimethylbenzene	ug/L	24	< 1 U	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	33	< 1 U	< 1 U	< 1 UJ
1,2-Dichlorobenzene	ug/L	2,600	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane	ug/L	5	< 1 U	< 1 U	< 1 U
1,2-Dichloropropane	ug/L	35	< 1 U	< 1 U	< 1 U

TABLE J-1
TIER 2 ASSESSMENT FOR THE MOHAWK SUB-AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 3)

Chemical	Units	USEPA 2002 VI SL[1]	AA-18 N Feb 2007	AA-18 FD Feb 2007	MCF-12B N Feb 2007
1,3,5-Trimethylbenzene	ug/L	25	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene	ug/L	830	< 1 U	< 1 U	< 1 U
1,3-Dichloropropane	ug/L	0.84	< 1 U	< 1 U	< 1 U
1,4-Dichlorobenzene	ug/L	8,200	< 1 U	< 1 U	< 1 U
2-Nitropropane	ug/L	0.18	*< 10 U*	*< 10 U*	*< 10 U*
Acetone	ug/L	220,000	< 2 U	< 2 U	< 2 UJ
Acetonitrile	ug/L	42,000	< 10 UJ	< 10 UJ	< 10 U
Benzene	ug/L	5	< 1 U	< 1 U	< 1 U
Bromodichloromethane	ug/L	2.1	< 1 U	< 1 U	< 1 U
Carbon disulfide	ug/L	560	< 1 UJ	< 1 UJ	< 1 U
Carbon tetrachloride	ug/L	5	< 1 U	< 1 U	< 1 U
Freon 11	ug/L	180	< 1 U	< 1 U	< 1 U
Freon 12	ug/L	14	< 2 UJ	< 2 UJ	< 2 U
Freon 113	ug/L	1,500	< 1 U	< 1 U	< 1 U
Chlorobenzene	ug/L	390	< 1 U	< 1 U	< 1 U
Chlorobromomethane	ug/L	3.2	< 1 UJ	< 1 UJ	< 1 U
Chloroethane	ug/L	28,000	< 2 U	< 2 U	< 2 U
Chloroform	ug/L	80	7.7	7.5	3.5
cis-1,2-Dichloroethene	ug/L	210	< 1 U	< 1 U	< 1 U
Dibromomethane	ug/L	990	< 1 UJ	< 1 UJ	< 1 U
Dichloromethane	ug/L	58	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 1 U	< 1 U	< 1 U
Isopropylbenzene	ug/L	8.4	< 1 U	< 1 U	< 1 U
Methyl ethyl ketone	ug/L	440,000	< 5 UJ	< 5 UJ	< 5 UJ
Methyl isobutyl ketone	ug/L	14,000	< 5 U	< 5 U	< 5 U
MTBE (Methyl tert-butyl ether)	ug/L	120,000	< 2 U	< 2 U	< 2 U
n-Butyl benzene	ug/L	260	< 1 U	< 1 U	< 1 U
n-Propyl benzene	ug/L	320	< 1 U	< 1 U	< 1 U
Styrene	ug/L	8,900	< 1 U	< 1 U	< 1 U
tert-Butyl benzene	ug/L	290	< 1 U	< 1 U	< 1 U
Tetrachloroethene	ug/L	5	< 1 U	0.24 J	< 1 U
Toluene	ug/L	1,500	< 1 U	< 1 U	< 1 U
trans-1,2-Dichloroethene	ug/L	180	< 1 U	< 1 U	< 1 U

TABLE J-1
TIER 2 ASSESSMENT FOR THE MOHAWK SUB-AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical	Units	USEPA 2002 VI SL[1]	AA-18 N Feb 2007	AA-18 FD Feb 2007	MCF-12B N Feb 2007
Tribromomethane	ug/L	0.0083	< *1 U*	< *1 U*	< *1 U*
Trichloroethene	ug/L	5	< 1 U	< 1 U	< 1 U
Vinyl acetate	ug/L	9,600	< 2 U	< 2 U	< 2 U
Vinyl chloride	ug/L	2	< 2 U	< 2 U	< 2 U
Xylenes (total)	ug/L	22,000	< 3 U	< 3 U	< 3 U

(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).

TABLE J-2
MEASURED SOIL PHYSICAL PROPERTIES FROM COMPARISON STUDY AREA
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Parameter	Sample ID	Sample Depth	Result	Units
Dry Bulk Density	STA-4C-0-SO	0	1.61	g/cm^3
	STA-4C-2-SO	2	1.69	g/cm^3
	STA-4C-4-SO	4	1.9	g/cm^3
	STA-4C-6-SO	6	1.76	g/cm^3
	STA-4C-8-SO	8	1.78	g/cm^3
	STA-4C-10-SO	10	1.84	g/cm^3
Percent Moisture	STA-4C-0-SO	0	3.9	percent
	STA-4C-0-SO	0	6.9	percent
	STA-4C-2-SO	2	3.6	percent
	STA-4C-2-SO	2	3.8	percent
	STA-4C-4-SO	4	2.8	percent
	STA-4C-4-SO	4	3.7	percent
	STA-4C-6-SO	6	3	percent
	STA-4C-6-SO	6	4.4	percent
	STA-4C-8-SO	8	4.7	percent
	STA-4C-8-SO	8	5.5	percent
	STA-4C-10-SO	10	4.4	percent
	STA-4C-10-SO	10	6.8	percent
Porosity	STA-4C-0-SO	0	39.9	percent
	STA-4C-2-SO	2	36.3	percent
	STA-4C-4-SO	4	28.8	percent
	STA-4C-6-SO	6	34.6	percent
	STA-4C-8-SO	8	32.9	percent
	STA-4C-10-SO	10	30.4	percent
Particle Density	STA-4C-0-SO	0	2.676	g/cm^3
	STA-4C-2-SO	2	2.658	g/cm^3
	STA-4C-4-SO	4	2.663	g/cm^3
	STA-4C-6-SO	6	2.696	g/cm^3
	STA-4C-8-SO	8	2.659	g/cm^3
	STA-4C-10-SO	10	2.652	g/cm^3

TABLE J-3
COMPARISON STUDY AREA JOHNSON AND ETTINGER MODEL INPUT VALUES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Parameter	Value	Source
Interval 1 (0-5 feet)		
Depth Below grade to bottom of enclosed floor space (cm)	15	Default
Depth to Soil Vapor Sample (ft)	5 or 10	Sample Specific
Average Soil Temperature (C)	16.67	Site-specific
Stratum Thickness (cm)	152.4	Site-specific
Interval 1 Dry Bulk Density (g/cm^3)	1.73	Site-specific Average
Interval 1 Total Porosity (unitless)	0.35	Site-specific Average
Interval 1 Water-Filled Porosity (unitless)	0.041	Site-specific Average
Interval 2 (5-10 feet)		
Stratum Thickness (cm)	152.4	Site-specific
Vadose Zone Dry Bulk Density (g/cm^3)	1.79	Site-specific Average
Vadose Zone Total Porosity (unitless)	0.33	Site-specific Average
Vadose Zone Water-Filled Porosity (unitless)	0.048	Site-specific Average
Building Characteristics		
Enclosed space floor thickness (cm)	10	Default
Soil-building pressure differential ($g/cm\text{-}s^2$)	40	Default
Enclosed space floor length (cm)	1,000	Default
Enclosed space floor width (cm)	1,000	Default
Enclosed space floor are (cm^2)	1.0 E+6	Default
Enclosed space height (cm)	244	Default
Enclosed space volume (cm^3)	2.4 E+8	Default
Floor-wall seam crack width (cm)	0.1	Default
Indoor air exchange rate (1/hr)	0.50	Default (from Cal/EPA)

TABLE J-4
COMPARISON STUDY AREA SURFACE FLUX TO INDOOR AIR EQUATION INPUT VALUES
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Parameter	Abbrev.	Value	Units	Reference
Foundation crack fraction	η	0.01	unitless	ASTM 2000
Enclosed space volume/infiltration area ratio, residential	L_r	200	cm	ASTM 2000
Enclosed space air exchange rate, residential	ER_r	12	1/day	ASTM 2000

TABLE J-5
MEASURED AND MODELED SOIL GAS, SURFACE FLUX, AND INDOOR AIR RESULTS FOR CHLOROFORM
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Location	Sample	Soil Vapor Sample Depth	Method	Measured Soil Vapor Conc. (ug/m^3)	Modeled Indoor Air Conc. from Soil Vapor (ug/m^3)	Measured Surface Flux (ug/m^2-min)	Crack Fraction (unitless)	Volume:Area Ratio (m)	Air Exchange Rate (l/min)	Modeled Indoor Air Conc. from Measured Surface Flux (ug/m^3)
4C	STA-4C-5	5	TO-15	137.3	0.075	*<0.013 U*	0.01	2	0.00833	ND
4C	STA-4C-5	5	TO-15 SIM	135.91 J	0.037	0.0067	0.01	2	0.00833	0.0040
4C	STA-4C-5B	5	TO-15	*<0.26 U*	ND	*<0.013 U*	0.01	2	0.00833	ND
4C	STA-4C-5B	5	TO-15 SIM	*<0.026 U*	ND	0.0067	0.01	2	0.00833	0.0040
4C	STA-4C-10	10	TO-15	239.03	0.059	*<0.013 U*	0.01	2	0.00833	ND
4C	STA-4C-10	10	TO-15 SIM	250.45 J	0.062	0.0067	0.01	2	0.00833	0.0040
4CR	STA-4CR-5	5	TO-15	146.62	0.040	*<0.013 U*	0.01	2	0.00833	ND
4CR	STA-4CR-5	5	TO-15 SIM	43.537 J	0.012	0.0074	0.01	2	0.00833	0.0044
4CR	STA-4C-5-DUP	5	TO-15	153.94	0.042	*<0.013 U*	0.01	2	0.00833	ND
4CR	STA-4C-5-DUP	5	TO-15 SIM	147.947 J	0.040	0.0080	0.01	2	0.00833	0.0048
4CR	STA-4CR-10	10	TO-15	184.85	0.046	*<0.013 U*	0.01	2	0.00833	ND
4CR	STA-4CR-10	10	TO-15 SIM	246.687 J	0.061	0.0074	0.01	2	0.00833	0.0044
4CR	STA-4C-10-DUP	10	TO-15	213.93	0.053	*<0.013 U*	0.01	2	0.00833	ND
4CR	STA-4C-10-DUP	10	TO-15 SIM	225.465 J	0.056	0.0080	0.01	2	0.00833	0.0048
4E	STA-4E-5	5	TO-15	302.65	0.082	0.0154 J	0.01	2	0.00833	0.0092
4E	STA-4E-5	5	TO-15 SIM	49.718 J	0.014	0.0260	0.01	2	0.00833	0.016
4E	STA-4E-10	10	TO-15	402.61	0.100	0.0154 J	0.01	2	0.00833	0.0092
4E	STA-4E-10	10	TO-15 SIM	274.322 J	0.068	0.0260	0.01	2	0.00833	0.016
4N	STA-4N-5	5	TO-15	125.18	0.034	0.0146 J	0.01	2	0.00833	0.0088
4N	STA-4N-5	5	TO-15 SIM	32.201 J	0.009	0.0185 J	0.01	2	0.00833	0.011
4N	STA-4N-10	10	TO-15	278.35	0.069	0.0146 J	0.01	2	0.00833	0.0088
4N	STA-4N-10	10	TO-15 SIM	*<0.201 UJ*	ND	0.0185 J	0.01	2	0.00833	0.011
4S	STA-4S-5	5	TO-15	103.16	0.028	*<0.013 U*	0.01	2	0.00833	ND
4S	STA-4S-5	5	TO-15 SIM	110.502 J	0.030	0.0026 J	0.01	2	0.00833	0.0016
4S	STA-4S-10	10	TO-15	225.84	0.056	*<0.013 U*	0.01	2	0.00833	ND
4S	STA-4S-10	10	TO-15 SIM	197.818 J	0.049	0.0026 J	0.01	2	0.00833	0.0016
4W	STA-4W-5	5	TO-15	111.38	0.030	*<0.013 U*	0.01	2	0.00833	ND
4W	STA-4W-5	5	TO-15 SIM	145.454 J	0.040	0.0123	0.01	2	0.00833	0.0074
4W	STA-4W-10	10	TO-15	111.77	0.028	*<0.013 U*	0.01	2	0.00833	ND
4W	STA-4W-10	10	TO-15 SIM	139.903 J	0.035	0.0123	0.01	2	0.00833	0.0074

TABLE J-6
CHLOROFORM RESIDENTIAL INDOOR AIR RISKS FROM SURFACE FLUX AND SOIL GAS MEASUREMENTS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 2)

Site	Chloroform Residential Indoor Air Risks			Indoor Air Concentration (ug/m^3)	Sampling Method
	Sample Location	HQ	ILCR		
Side-by-Side Comparison Study	STA-4C-5	0.00051	5 E-7	7.5 E-2	Soil Gas
	STA-4C-5 (SIM)	0.00025	2 E-7	3.7 E-2	Soil Gas
	STA-4C-5B	--	--	ND	Soil Gas
	STA-4C-5B (SIM)	--	--	ND	Soil Gas
	STA-4C-10	0.00040	4 E-7	5.9 E-2	Soil Gas
	STA-4C-10 (SIM)	0.00042	4 E-7	6.2 E-2	Soil Gas
	STA-4CR-5	0.00027	3 E-7	4.0 E-2	Soil Gas
	STA-4CR-5 (SIM)	0.00008	8 E-8	1.2 E-2	Soil Gas
	STA-4C-5-DUP	0.00029	3 E-7	4.2 E-2	Soil Gas
	STA-4C-5-DUP (SIM)	0.00027	3 E-7	4.0 E-2	Soil Gas
	STA-4CR-10	0.00031	3 E-7	4.6 E-2	Soil Gas
	STA-4CR-10 (SIM)	0.00042	4 E-7	6.1 E-2	Soil Gas
	STA-4C-10-DUP	0.00036	3 E-7	5.3 E-2	Soil Gas
	STA-4C-10-DUP (SIM)	0.00038	4 E-7	5.6 E-2	Soil Gas
	STA-4E-5	0.00056	5 E-7	8.2 E-2	Soil Gas
	STA-4E-5 (SIM)	0.00009	9 E-8	1.4 E-2	Soil Gas
	STA-4E-10	0.00068	7 E-7	1.0 E-1	Soil Gas
	STA-4E-10 (SIM)	0.00046	4 E-7	6.8 E-2	Soil Gas
	STA-4N-5	0.00023	2 E-7	3.4 E-2	Soil Gas
	STA-4N-5 (SIM)	0.00006	6 E-8	8.8 E-3	Soil Gas
	STA-4N-10	0.00047	5 E-7	6.9 E-2	Soil Gas
	STA-4N-10 (SIM)	--	--	ND	Soil Gas
	STA-4S-5	0.00019	2 E-7	2.8 E-2	Soil Gas
	STA-4S-5 (SIM)	0.00020	2 E-7	3.0 E-2	Soil Gas
	STA-4S-10	0.00038	4 E-7	5.6 E-2	Soil Gas
	STA-4S-10 (SIM)	0.00033	3 E-7	4.9 E-2	Soil Gas
	STA-4W-5	0.00021	2 E-7	3.0 E-2	Soil Gas
	STA-4W-5 (SIM)	0.00027	3 E-7	4.0 E-2	Soil Gas
	STA-4W-10	0.00019	2 E-7	2.8 E-2	Soil Gas
	STA-4W-10 (SIM)	0.00024	2 E-7	3.5 E-2	Soil Gas

TABLE J-6
CHLOROFORM RESIDENTIAL INDOOR AIR RISKS FROM SURFACE FLUX AND SOIL GAS MEASUREMENTS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Site	Chloroform Residential Indoor Air Risks			Indoor Air Concentration (ug/m^3)	Sampling Method
	Sample Location	HQ	ILCR		
Side-by-Side Comparison Study	STA-4C	0.00003	3 E-8	4.0 E-3	Surface Flux
	STA-4CR	0.00003	3 E-8	4.4 E-3	Surface Flux
	STA-4C-DUP	0.00003	3 E-8	4.8 E-3	Surface Flux
	STA-4E	0.00011	1 E-7	1.6 E-2	Surface Flux
	STA-4N	0.00008	7 E-8	1.1 E-2	Surface Flux
	STA-4S	0.00001	1 E-8	1.6 E-3	Surface Flux
	STA-4W	0.00005	5 E-8	7.4 E-3	Surface Flux

Side-by-Side Comparison Study	Minimum Risk	0.000011	1 E-8	1.6 E-3	Surface Flux
	Minimum Risk	0.000060	6 E-8	8.8 E-3	Soil Gas
	Maximum Risk	0.00011	1 E-7	1.6 E-2	Surface Flux
	Maximum Risk	0.00068	7 E-7	1.0 E-1	Soil Gas

HQ = Hazard Quotient
ILCR = Incremental Lifetime Cancer Risk

APPENDIX K

IMPACTS TO GROUNDWATER MODELING

LIST OF TABLES (APPENDIX K)

TABLE K-1
CLIMATE PARAMETERS USED IN THE IMPACTS TO GROUND WATER MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Month	Monthly Mean Air Temperature (°C)	Monthly Mean Cloud Cover (fraction)	Monthly Mean Rel. Humidity (fraction)	Albedo (fraction)	Monthly Mean Evapo-transpiration (cm/day)	Total Precipitation per Month (cm/mo)	Mean Duration of Individual Storm Events (days)	Mean Number of Storm Events (per month)	Length of Rainy Season Each Month (days)	Development Areas Scenario Total Pre-cipitation per Month (cm/mo)	Green Space Enhanced Recharge Scenario Total Precipitation per Month (cm/mo)
Oct	19.8	0.4	0.76	0.2	0[a]	0.64	0.5	4	30.4	1.861	6.01
Nov	12.0	0.4	0.76	0.2	0[a]	1.09	0.5	4.5	30.4	1.861	6.01
Dec	7.4	0.4	0.76	0.3	0[a]	0.81	0.6	5	30.4	1.861	6.01
Jan	7.0	0.4	0.76	0.3	0[a]	1.27	0.6	5	30.4	1.861	6.01
Feb	10.1	0.4	0.76	0.3	0[a]	1.17	0.55	6	30.4	1.861	6.01
Mar	12.9	0.4	0.76	0.3	0[a]	1.04	0.5	6	30.4	1.861	6.01
Apr	17.5	0.4	0.68	0.2	0[a]	0.56	0.5	6	30.4	1.861	6.01
May	22.9	0.4	0.68	0.2	0[a]	0.51	0.45	5.5	30.4	1.861	6.01
Jun	28.7	0.4	0.68	0.2	0[a]	0.23	0.4	5	30.4	1.861	6.01
Jul	32.4	0.4	0.72	0.2	0[a]	1.14	0.35	5	30.4	1.861	6.01
Aug	31.1	0.4	0.72	0.2	0[a]	1.37	0.3	4.5	30.4	1.861	6.01
Sept	26.7	0.4	0.72	0.2	0[a]	0.81	0.35	4.5	30.4	1.861	6.01

Notes: Climate data is SESOIL default data for Las Vegas, Nevada.
[a]If zero is input, SESOIL calculates evapotranspiration.

TABLE K-2
SOIL PHYSICAL PARAMETERS USED IN THE SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Soil Physical Parameters	Units	Values	Source
Soil Density	g/cm^3	1.61	Site Specific Average
Intrinsic Permeability	cm^2	1E-08	Site Specific Average
Disconnectedness Index	unitless	5.59	Model Default
Porosity	percent	39.1	Site Specific Average
Organic Carbon Content	percent	0.77%	Site Specific Average
Cation Exchange Capacity	milli. eq./100 g dry soil	0	Model Default
Freundlich Exponent	unitless	1	Model Default

Note: Data from which the values presented in this table and used in the modeling do not include samples collected from contaminated areas.

TABLE K-3
CHEMICAL PROPERTIES FOR CHEMICALS OF POTENTIAL CONCERN IN VADOSE ZONE
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical-Specific Parameters	Units	Beryllium	Chromium (Total)	Chromium (VI)	Cobalt	Mercury	Nickel	Thallium
Source	--	a	a	a	a	a	a	a
Solubility	ug/ml	2.00E+03	2.00E+03	2.00E+03	In Soluble	2.00E+03	2.00E+03	2.00E+03
Diffusion Coefficient in air	cm^2/sec	1.00E-03	1.00E-03	1.00E-03	--	3.07E-02	1.00E-03	1.00E-03
Henry's Law Constant	m^3-atm/mole	--	--	--	--	1.14E-02	--	--
Henry's Law Constant	--							
Adsorption Coefficient on Organic Carbon (Koc)	ml/g	--	--	--	--	--	--	--
Adsorption Coefficient on Soil[c]	ml/g	1.00E+05	4.30E+06	1.40E+01	--	2.00E+02	1.90E+03	9.60E+01
Molecular Weight	g/mole	9.012	52	52	--	200	58.69	204
Valence	+/-	0	0	0	--	0	0	0
Neutral Hydrolysis Constant	/day	0	0	0	--	0	0	0
Base Hydrolysis Constant	l/mole-day	0	0	0	--	0	0	0
Acid Hydrolysis Constant	l/mole-day	0	0	0	--	0	0	0
Half Life ($t_{1/2}$)	years	0	0	0	--	0	0	0
Degradation Rate in Moisture	1/day	0	0	0	--	0	0	0
Degradation Rate on Soil	1/day	0	0	0	--	0	0	0
Ligand-Pollutant Stability Constant	unitless	0	0	0	--	0	0	0
No. Moles Ligand/Mole Pollutant	unitless	0	0	0	--	0	0	0

Notes:
Cobalt and tin are considered insoluble and were not evaluated further.
a - USEPA 2002. Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites.
b - NDEP 2010. NDEP Basic Comparison Levels
c - pH dependent soil adsorption coeffiecients for metals were selected according to the average site soil pH of 9.0.
d - Risk Assessment Information System. 2010. <http://rais.ornl.gov/cgi-bin/tools/TOX_search>

TABLE K-3
CHEMICAL PROPERTIES FOR CHEMICALS OF POTENTIAL CONCERN IN VADOSE ZONE
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical-Specific Parameters	Units	Tin	Tungsten	Vanadium	2,4'-DDE	4,4'-DDE	4,4'-DDT	beta-BHC
Source	--	a	a	a	b	b	b	b
Solubility	ug/ml	In Soluble	2.00E+03	2.00E+03	1.20E-01	1.20E-01	2.50E-02	2.00E+00
Diffusion Coefficient in air	cm^2/sec	--	1.00E-03	1.00E-03	1.44E-02	1.44E-02	1.37E-02	1.42E-02
Henry's Law Constant	m^3-atm/mole	--	--	--	2.10E-05	2.10E-05	8.10E-06	1.06E-05
Henry's Law Constant	--							
Adsorption Coefficient on Organic Carbon (Koc)	ml/g	--	--	--	4.47E+06	4.47E+06	2.63E+06	1.23E+03
Adsorption Coefficient on Soil[c]	ml/g	--	8.45E+02	1.00E+03	--	--	--	--
Molecular Weight	g/mole	--	183.8	50.94	354	354	354	290.83
Valence	+/-	--	0	0	0	0	0	0
Neutral Hydrolysis Constant	/day	--	0	0	0	0	0	0
Base Hydrolysis Constant	l/mole-day	--	0	0	0	0	0	0
Acid Hydrolysis Constant	l/mole-day	--	0	0	0	0	0	0
Half Life ($t_{1/2}$)	years	--	0	0	0	0	0	0
Degradation Rate in Moisture	1/day	--	0	0	0	0	0	0
Degradation Rate on Soil	1/day	--	0	0	0	0	0	0
Ligand-Pollutant Stability Constant	unitless	--	0	0	0	0	0	0
No. Moles Ligand/Mole Pollutant	unitless	--	0	0	0	0	0	0

Notes:
Cobalt and tin are considered insoluble and were not evaluated further.
a - USEPA 2002. Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites.
b - NDEP 2010. NDEP Basic Comparison Levels
c - pH dependent soil adsorption coeffiecients for metals were selected according to the average site soil pH of 9.0.
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TABLE K-3
CHEMICAL PROPERTIES FOR CHEMICALS OF POTENTIAL CONCERN IN VADOSE ZONE
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical-Specific Parameters	Units	Antimony	Ammonia	Fluoride	Molyb-denum	Nitrate (as N)	Perchlorate	Silver
Source	--	a	d	d	d	d		a
Solubility	ug/ml	3.00E+03	4.82E+05	1.69E+00	2.00E+03	2.00E+03	2.00E+03	2.00E+03
Diffusion Coefficient in air	cm^2/sec	1.00E-03	2.00E-01	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
Henry's Law Constant	m^3-atm/mole	--	1.60E-05	--	--	--	--	--
Henry's Law Constant	--		6.58E-04					
Adsorption Coefficient on Organic Carbon (Koc)	ml/g		3.09E+00					
Adsorption Coefficient on Soil[c]	ml/g	4.50E+01		1.50E+02	2.00E+01			1.10E+02
Molecular Weight	g/mole	124.78	17.03	18.99	95.94	62	117.49	107.87
Valence	+/-							
Neutral Hydrolysis Constant	/day							
Base Hydrolysis Constant	l/mole-day							
Acid Hydrolysis Constant	l/mole-day							
Half Life ($t_{1/2}$)	years							
Degradation Rate in Moisture	1/day							
Degradation Rate on Soil	1/day							
Ligand-Pollutant Stability Constant	unitless							
No. Moles Ligand/Mole Pollutant	unitless							

Notes:
Cobalt and tin are considered insoluble and were not evaluated further.
a - USEPA 2002. Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites.
b - NDEP 2010. NDEP Basic Comparison Levels
c - pH dependent soil adsorption coeffiecients for metals were selected according to the average site soil pH of 9.0.
d - Risk Assessment Information System. 2010. <http://rais.ornl.gov/cgi-bin/tools/TOX_search>

TABLE K-3
CHEMICAL PROPERTIES FOR CHEMICALS OF POTENTIAL CONCERN IN VADOSE ZONE
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Chemical-Specific Parameters	Units	Zinc	Acetone	1,2,4-Trimethylbenzene	Acetaldehyde	Dichloromethane	Formaldehyde	Benzene
Source	--	a	b	b	b	b	b	b
Solubility	ug/ml	2.00E+03	1.00E+06	2.55E-01	1.00E+06	1.32E+04	5.50E+05	1.75E+03
Diffusion Coefficient in air	cm^2/sec	1.00E-03	1.24E-01	7.50E-02	1.24E-01	1.01E-01	1.80E-01	8.80E-02
Henry's Law Constant	m^3-atm/mole	--	3.88E-05	5.70E-03	7.90E-05	2.19E-03	3.40E-07	5.55E-03
Henry's Law Constant	--		1.59E-03	2.34E-01	3.24E-03	8.98E-02	1.39E-05	2.28E-01
Adsorption Coefficient on Organic Carbon (Koc)	ml/g		5.75E-01	3.72E+03	1.81E+01	1.00E+01	3.63E+00	6.20E+01
Adsorption Coefficient on Soil[c]	ml/g	5.30E+02	--	--	--	--	--	--
Molecular Weight	g/mole	67.41	58	120.19	44	85	30.03	78.1
Valence	+/-		0	0	0	0	0	0
Neutral Hydrolysis Constant	/day		0	0	0	0	0	0
Base Hydrolysis Constant	l/mole-day		0	0	0	0	0	0
Acid Hydrolysis Constant	l/mole-day		0	0	0	0	0	0
Half Life ($t_{1/2}$)	years		0	0	0	0	0	0
Degradation Rate in Moisture	1/day		0	0	0	0	0	0
Degradation Rate on Soil	1/day		0	0	0	0	0	0
Ligand-Pollutant Stability Constant	unitless		0	0	0	0	0	0
No. Moles Ligand/Mole Pollutant	unitless		0	0	0	0	0	0

Notes:
Cobalt and tin are considered insoluble and were not evaluated further.
a - USEPA 2002. Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites.
b - NDEP 2010. NDEP Basic Comparison Levels
c - pH dependent soil adsorption coeffiecients for metals were selected according to the average site soil pH of 9.0.
d - Risk Assessment Information System. 2010. <http://rais.ornl.gov/cgi-bin/tools/TOX_search>

TABLE K-4
CHEMICAL APPLICATION DATA FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Parameter	Units	Application Zone	Source
Soil Cover Efficiency	unitless	0	Site Specific
Number of Soil Infiltration Layers	unitless	4	Site Specific
Simulation run time	years	100	Site Specific
Area	acres	54.74	Site Specific
Application Area Latitude	degrees	35	Site Specific
Infiltration Layer 1 Thickness	cm (feet)	305 (10)	Site Specific
Infiltration Layer 2 Thickness	cm (feet)	305 (10)	Site Specific
Infiltration Layer 3 Thickness	cm (feet)	305 (10)	Site Specific
Infiltration Layer 4 Thickness	cm (feet)	457.2 (15)	Site Specific
Depth to Groundwater	cm (feet)	1371.6 (45)	Site Specific
Infiltration Layer Where Chemical is Applied		1	Site Specific
pH of soil	unitless	9	Site Specific
Liquid Phase Biodegradation Ratio	unitless	1	Default
Soil Phase Biodegradation Ratio	unitless	1	Default
Organic Carbon Content Ratio	unitless	1	Default
Cation Exchange Capacity Ratio	unitless	1	Default
Frenudlich Exponent Ratio	unitless	1	Default
Adsorption Coefficient Ratio	unitless	1	Default

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 8)

Application Area	Depth (feet bgs)	Units	Source	Beryllium	Chromium (Total)	Chromium (VI)	Mercury	Nickel	Thallium	Tungsten
Layer One										
Infiltration Sub-Layer	0-1	mg/kg	Site Specific	2.1	670	5.9	0.0451	63.2	7	7.4
Infiltration Sub-Layer Two	1-2	mg/kg	Site Specific	2.1	670	5.9	0.0451	63.2	7	7.4
Infiltration Sub-Layer Two	2-3	mg/kg	Site Specific	2.1	670	5.9	0.0451	63.2	7	7.4
Infiltration Sub-Layer Two	3-4	mg/kg	Site Specific	0.53	10.6	0.72	0.0125	11.2	0	0.57
Infiltration Sub-Layer Two	4-5	mg/kg	Site Specific	0.48	16	0	0	12.8	0	0.91
Infiltration Sub-Layer Two	5-6	mg/kg	Site Specific	0.4	5.8	0.45	0	7.2	0	0
Infiltration Sub-Layer Two	6-7	mg/kg	Site Specific	0.36	9.7	0	0.013	9.8	0	0
Infiltration Sub-Layer Two	7-8	mg/kg	Site Specific	0.36	9.7	0	0.013	9.8	0	0
Infiltration Sub-Layer Two	8-9	mg/kg	Site Specific	0.46	9.7	0	0.0275	15.3	0	0.55
Infiltration Sub-Layer Three	9-10	mg/kg	Site Specific	0.4	8.9	0.58	0	10.4	0	0
Layer Two										
Infiltration Sub-Layer	10-11	mg/kg	Site Specific	0.53	11.5	0	0	14.3	0	0.6
Infiltration Sub-Layer Two	11-12	mg/kg	Site Specific	0.45	17.7	0	0	15.5	0	1
Infiltration Sub-Layer Two	12-13	mg/kg	Site Specific	0.46	83.7	0.55	0	14.8	20.4	1.2
Infiltration Sub-Layer Two	13-14	mg/kg	Site Specific	0.48	8.6	0	0	12.8	0	0
Infiltration Sub-Layer Two	14-15	mg/kg	Site Specific	0.41	9.8	0	0	10.8	0	0
Infiltration Sub-Layer Two	15-16	mg/kg	Site Specific	0.28	6	0	0	10.2	0	0
Infiltration Sub-Layer Two	16-17	mg/kg	Site Specific	0.41	4.5	0	0.0156	6.6	0	0
Infiltration Sub-Layer Two	17-18	mg/kg	Site Specific	0.41	4.5	0	0.0156	6.6	0	0
Infiltration Sub-Layer Two	18-19	mg/kg	Site Specific	0.4	11.3	0.85	0.0137	11.1	0	1.2
Infiltration Sub-Layer Three	19-20	mg/kg	Site Specific	0.37	7.6	0	0.0157	10.3	0	0
Layer Three	20-30	mg/kg	Site Specific	--	--	--	--	--	--	--
Layer Four	30-45	mg/kg	Site Specific	--	--	--	--	--	--	--

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 2 of 8)

Application Area	Depth (feet bgs)	Units	Source	Beryllium	Chromium (Total)	Chromium (VI)	Mercury	Nickel	Thallium	Tungsten
Layer One										
Infiltration Sub-Layer	0-1	ug/ml	Site Specific	3.388	1080.777	9.517	0.073	101.948	11.292	11.937
Infiltration Sub-Layer Two	1-2	ug/ml	Site Specific	3.388	1080.777	9.517	0.073	101.948	11.292	11.937
Infiltration Sub-Layer Two	2-3	ug/ml	Site Specific	3.388	1080.777	9.517	0.073	101.948	11.292	11.937
Infiltration Sub-Layer Two	3-4	ug/ml	Site Specific	0.855	17.099	1.161	0.020	18.067	0.000	0.919
Infiltration Sub-Layer Two	4-5	ug/ml	Site Specific	0.774	25.810	0.000	0.000	20.648	0.000	1.468
Infiltration Sub-Layer Two	5-6	ug/ml	Site Specific	0.645	9.356	0.726	0.000	11.614	0.000	0.000
Infiltration Sub-Layer Two	6-7	ug/ml	Site Specific	0.581	15.647	0.000	0.021	15.808	0.000	0.000
Infiltration Sub-Layer Two	7-8	ug/ml	Site Specific	0.581	15.647	0.000	0.021	15.808	0.000	0.000
Infiltration Sub-Layer Two	8-9	ug/ml	Site Specific	0.742	15.647	0.000	0.044	24.680	0.000	0.887
Infiltration Sub-Layer Three	9-10	ug/ml	Site Specific	0.645	14.357	0.936	0.000	16.776	0.000	0.000
Layer Two										
Infiltration Sub-Layer	10-11	ug/ml	Site Specific	0.855	18.551	0.000	0.000	23.067	0.000	0.968
Infiltration Sub-Layer Two	11-12	ug/ml	Site Specific	0.726	28.552	0.000	0.000	25.003	0.000	1.613
Infiltration Sub-Layer Two	12-13	ug/ml	Site Specific	0.742	135.016	0.887	0.000	23.874	32.907	1.936
Infiltration Sub-Layer Two	13-14	ug/ml	Site Specific	0.774	13.873	0.000	0.000	20.648	0.000	0.000
Infiltration Sub-Layer Two	14-15	ug/ml	Site Specific	0.661	15.808	0.000	0.000	17.421	0.000	0.000
Infiltration Sub-Layer Two	15-16	ug/ml	Site Specific	0.452	9.679	0.000	0.000	16.454	0.000	0.000
Infiltration Sub-Layer Two	16-17	ug/ml	Site Specific	0.661	7.259	0.000	0.025	10.646	0.000	0.000
Infiltration Sub-Layer Two	17-18	ug/ml	Site Specific	0.661	7.259	0.000	0.025	10.646	0.000	0.000
Infiltration Sub-Layer Two	18-19	ug/ml	Site Specific	0.645	18.228	1.371	0.022	17.905	0.000	1.936
Infiltration Sub-Layer Three	19-20	ug/ml	Site Specific	0.597	12.260	0.000	0.025	16.615	0.000	0.000
Layer Three	20-30	ug/ml	Site Specific	--	--	--	--	--	--	--
Layer Four	30-45	ug/ml	Site Specific	--	--	--	--	--	--	--

NOTE: Concentrations in units mg/kg are dry weight based
and are converted to units of ug/ml based on site-specific
measurements of soil bulk density (Table I-2).
Conc.(ug/ml)=Conc.(mg/kg)×1000ug/mg×0.001kg/g×1.6131g/cm^3×1cm^3/ml

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Application Area	Depth (feet bgs)	Units	Source	Vanadium	2,4'-DDE	4,4'-DDE	4,4'-DDT	beta-BHC	Antimony	Ammonia
Layer One										
Infiltration Sub-Layer	0-1	mg/kg	Site Specific	857	0.042	0.069	0.077	0.0063	1.1	15.3
Infiltration Sub-Layer Two	1-2	mg/kg	Site Specific	857	0.042	0.069	0.077	0.0063	1.1	15.3
Infiltration Sub-Layer Two	2-3	mg/kg	Site Specific	857	0.042	0.069	0.077	0.0063	1.1	15.3
Infiltration Sub-Layer Two	3-4	mg/kg	Site Specific	25.1	0	0.0024	0	0	0	0
Infiltration Sub-Layer Two	4-5	mg/kg	Site Specific	33.4	0.0047	0.0051	0	0	0	0
Infiltration Sub-Layer Two	5-6	mg/kg	Site Specific	17	0	0	0	0	0	0
Infiltration Sub-Layer Two	6-7	mg/kg	Site Specific	18.3	0	0	0	0	0	0
Infiltration Sub-Layer Two	7-8	mg/kg	Site Specific	18.3	0	0	0	0	0	0
Infiltration Sub-Layer Two	8-9	mg/kg	Site Specific	25.2	0	0	0	0.0018	0	3.8
Infiltration Sub-Layer Three	9-10	mg/kg	Site Specific	32.9	0	0	0	0	0	0
Layer Two										
Infiltration Sub-Layer	10-11	mg/kg	Site Specific	35.8	0	0	0	0	0	0
Infiltration Sub-Layer Two	11-12	mg/kg	Site Specific	48.3	0	0	0	0.0042	0	1
Infiltration Sub-Layer Two	12-13	mg/kg	Site Specific	37.4	0	0	0	0	0	0
Infiltration Sub-Layer Two	13-14	mg/kg	Site Specific	28.2	0	0	0	0	0	0
Infiltration Sub-Layer Two	14-15	mg/kg	Site Specific	34.1	0	0	0	0	0	2.3
Infiltration Sub-Layer Two	15-16	mg/kg	Site Specific	19.5	0	0	0	0	0	0
Infiltration Sub-Layer Two	16-17	mg/kg	Site Specific	14.5	0	0	0	0	0	0
Infiltration Sub-Layer Two	17-18	mg/kg	Site Specific	14.5	0	0	0	0	0	0
Infiltration Sub-Layer Two	18-19	mg/kg	Site Specific	29.4	0	0	0	0	0	0
Infiltration Sub-Layer Three	19-20	mg/kg	Site Specific	31.9	0	0	0	0	0	1.1
Layer Three	20-30	mg/kg	Site Specific	--	--	--	--	--	--	--
Layer Four	30-45	mg/kg	Site Specific	--	--	--	--	--	--	--

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Application Area	Depth (feet bgs)	Units	Source	Vanadium	2,4'-DDE	4,4'-DDE	4,4'-DDT	beta-BHC	Antimony	Ammonia
Layer One										
Infiltration Sub-Layer	0-1	ug/ml	Site Specific	1382.427	0.068	0.111	0.124	0.010	1.774	24.680
Infiltration Sub-Layer Two	1-2	ug/ml	Site Specific	1382.427	0.068	0.111	0.124	0.010	1.774	24.680
Infiltration Sub-Layer Two	2-3	ug/ml	Site Specific	1382.427	0.068	0.111	0.124	0.010	1.774	24.680
Infiltration Sub-Layer Two	3-4	ug/ml	Site Specific	40.489	0.000	0.004	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	4-5	ug/ml	Site Specific	53.878	0.008	0.008	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	5-6	ug/ml	Site Specific	27.423	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	6-7	ug/ml	Site Specific	29.520	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	7-8	ug/ml	Site Specific	29.520	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	8-9	ug/ml	Site Specific	40.650	0.000	0.000	0.000	0.003	0.000	6.130
Infiltration Sub-Layer Three	9-10	ug/ml	Site Specific	53.071	0.000	0.000	0.000	0.000	0.000	0.000
Layer Two										
Infiltration Sub-Layer	10-11	ug/ml	Site Specific	57.749	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	11-12	ug/ml	Site Specific	77.913	0.000	0.000	0.000	0.007	0.000	1.613
Infiltration Sub-Layer Two	12-13	ug/ml	Site Specific	60.330	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	13-14	ug/ml	Site Specific	45.489	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	14-15	ug/ml	Site Specific	55.007	0.000	0.000	0.000	0.000	0.000	3.710
Infiltration Sub-Layer Two	15-16	ug/ml	Site Specific	31.455	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	16-17	ug/ml	Site Specific	23.390	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	17-18	ug/ml	Site Specific	23.390	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	18-19	ug/ml	Site Specific	47.425	0.000	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Three	19-20	ug/ml	Site Specific	51.458	0.000	0.000	0.000	0.000	0.000	1.774
Layer Three	20-30	ug/ml	Site Specific	--	--	--	--	--	--	--
Layer Four	30-45	ug/ml	Site Specific	--	--	--	--	--	--	--

NOTE: Concentrations in units mg/kg are dry weight based
and are converted to units of ug/ml based on site-specific
measurements of soil bulk density (Table I-2).
Conc.(ug/ml)=Conc.(mg/kg)×1000ug/mg×0.001kg/g×1.6131g/cm^3×1cm^3/ml

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Application Area	Depth (feet bgs)	Units	Source	Fluoride	Molyb-denum	Nitrate (as N)	Perchlorate	Silver	Zinc	Acetone
Layer One										
Infiltration Sub-Layer	0-1	mg/kg	Site Specific	6.2	2.1	168	0.593	0.62	236	0.16
Infiltration Sub-Layer Two	1-2	mg/kg	Site Specific	6.2	2.1	168	0.593	0.62	236	0.16
Infiltration Sub-Layer Two	2-3	mg/kg	Site Specific	6.2	2.1	168	0.593	0.62	236	0.16
Infiltration Sub-Layer Two	3-4	mg/kg	Site Specific	1.4	0.41	114	3.65	0.073	27.6	0
Infiltration Sub-Layer Two	4-5	mg/kg	Site Specific	3.1	0.43	56.8	4.18	0.091	27.6	0.017
Infiltration Sub-Layer Two	5-6	mg/kg	Site Specific	0.94	0.55	185	0.167	0.047	26.3	0
Infiltration Sub-Layer Two	6-7	mg/kg	Site Specific	0	1.5	21.7	1.94	0.093	22.6	0.012
Infiltration Sub-Layer Two	7-8	mg/kg	Site Specific	0	1.5	41	1.94	0.093	29.6	0.012
Infiltration Sub-Layer Two	8-9	mg/kg	Site Specific	1.6	0.91	41	1.72	0.089	24.9	0
Infiltration Sub-Layer Three	9-10	mg/kg	Site Specific	1.4	0.78	43.2	1.2	0.066	22.9	0.036
Layer Two										
Infiltration Sub-Layer	10-11	mg/kg	Site Specific	3.1	0.41	16.7	0.729	0.12	35.5	0
Infiltration Sub-Layer Two	11-12	mg/kg	Site Specific	4.1	1.3	24	0.643	0.096	31.7	0.017
Infiltration Sub-Layer Two	12-13	mg/kg	Site Specific	3.2	14.4	33.8	5.58	0.17	45.3	0
Infiltration Sub-Layer Two	13-14	mg/kg	Site Specific	2.4	0.63	8.4	1.74	0.34	53.6	0
Infiltration Sub-Layer Two	14-15	mg/kg	Site Specific	4	0.36	7.7	2.82	0.076	26	0
Infiltration Sub-Layer Two	15-16	mg/kg	Site Specific	1.3	0.48	0.75	0	0.05	31.2	0
Infiltration Sub-Layer Two	16-17	mg/kg	Site Specific	1.8	0.6	3.2	0.247	0.06	24.5	0.016
Infiltration Sub-Layer Two	17-18	mg/kg	Site Specific	2.2	0.6	3.2	0.247	0.06	24.5	0.016
Infiltration Sub-Layer Two	18-19	mg/kg	Site Specific	2.2	0.54	7.8	0.621	0.077	35.4	0.017
Infiltration Sub-Layer Three	19-20	mg/kg	Site Specific	0	0.62	0.29	0.109	0.074	23.6	0
Layer Three	20-30	mg/kg	Site Specific	--	--	--	--	--	--	--
Layer Four	30-45	mg/kg	Site Specific	--	--	--	--	--	--	--

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Application Area	Depth (feet bgs)	Units	Source	Fluoride	Molyb-denum	Nitrate (as N)	Perchlorate	Silver	Zinc	Acetone
Layer One										
Infiltration Sub-Layer	0-1	ug/ml	Site Specific	10.001	3.388	271.001	0.957	1.000	380.692	0.258
Infiltration Sub-Layer Two	1-2	ug/ml	Site Specific	10.001	3.388	271.001	0.957	1.000	380.692	0.258
Infiltration Sub-Layer Two	2-3	ug/ml	Site Specific	10.001	3.388	271.001	0.957	1.000	380.692	0.258
Infiltration Sub-Layer Two	3-4	ug/ml	Site Specific	2.258	0.661	183.893	5.888	0.118	44.522	0.000
Infiltration Sub-Layer Two	4-5	ug/ml	Site Specific	5.001	0.694	91.624	6.743	0.147	44.522	0.027
Infiltration Sub-Layer Two	5-6	ug/ml	Site Specific	1.516	0.887	298.424	0.269	0.076	42.425	0.000
Infiltration Sub-Layer Two	6-7	ug/ml	Site Specific	0.000	2.420	35.004	3.129	0.150	36.456	0.019
Infiltration Sub-Layer Two	7-8	ug/ml	Site Specific	0.000	2.420	66.137	3.129	0.150	47.748	0.019
Infiltration Sub-Layer Two	8-9	ug/ml	Site Specific	2.581	1.468	66.137	2.775	0.144	40.166	0.000
Infiltration Sub-Layer Three	9-10	ug/ml	Site Specific	2.258	1.258	69.686	1.936	0.106	36.940	0.058
Layer Two										
Infiltration Sub-Layer	10-11	ug/ml	Site Specific	5.001	0.661	26.939	1.176	0.194	57.265	0.000
Infiltration Sub-Layer Two	11-12	ug/ml	Site Specific	6.614	2.097	38.714	1.037	0.155	51.135	0.027
Infiltration Sub-Layer Two	12-13	ug/ml	Site Specific	5.162	23.229	54.523	9.001	0.274	73.073	0.000
Infiltration Sub-Layer Two	13-14	ug/ml	Site Specific	3.871	1.016	13.550	2.807	0.548	86.462	0.000
Infiltration Sub-Layer Two	14-15	ug/ml	Site Specific	6.452	0.581	12.421	4.549	0.123	41.941	0.000
Infiltration Sub-Layer Two	15-16	ug/ml	Site Specific	2.097	0.774	1.210	0.000	0.081	50.329	0.000
Infiltration Sub-Layer Two	16-17	ug/ml	Site Specific	2.904	0.968	5.162	0.398	0.097	39.521	0.026
Infiltration Sub-Layer Two	17-18	ug/ml	Site Specific	3.549	0.968	5.162	0.398	0.097	39.521	0.026
Infiltration Sub-Layer Two	18-19	ug/ml	Site Specific	3.549	0.871	12.582	1.002	0.124	57.104	0.027
Infiltration Sub-Layer Three	19-20	ug/ml	Site Specific	0.000	1.000	0.468	0.176	0.119	38.069	0.000
Layer Three	20-30	ug/ml	Site Specific	--	--	--	--	--	--	--
Layer Four	30-45	ug/ml	Site Specific	--	--	--	--	--	--	--

NOTE: Concentrations in units mg/kg are dry weight based
and are converted to units of ug/ml based on site-specific
measurements of soil bulk density (Table I-2).
Conc.(ug/ml)=Conc.(mg/kg)×1000ug/mg×0.001kg/g×1.6131g/cm^3×1cm^3/ml

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Application Area	Depth (feet bgs)	Units	Source	1,2,4-Trimethylbenzene	Acetaldehyde	Dichloromethane	Formaldehyde	Benzene
Layer One								
Infiltration Sub-Layer	0-1	mg/kg	Site Specific	0.0015	1.25	0.019	6.74	0.00055
Infiltration Sub-Layer Two	1-2	mg/kg	Site Specific	0.0015	1.25	0.019	6.74	0.00055
Infiltration Sub-Layer Two	2-3	mg/kg	Site Specific	0.0015	1.25	0.019	6.74	0.00055
Infiltration Sub-Layer Two	3-4	mg/kg	Site Specific	0	1.21	0	1.14	0
Infiltration Sub-Layer Two	4-5	mg/kg	Site Specific	0.00047	0.456	0.0082	0.601	0
Infiltration Sub-Layer Two	5-6	mg/kg	Site Specific	0	0.378	0	0.464	0
Infiltration Sub-Layer Two	6-7	mg/kg	Site Specific	0	0	0	0	0
Infiltration Sub-Layer Two	7-8	mg/kg	Site Specific	0	0	0	0	0
Infiltration Sub-Layer Two	8-9	mg/kg	Site Specific	0	1.51	0	5.35	0
Infiltration Sub-Layer Three	9-10	mg/kg	Site Specific	0	0.304	0	0.185	0
Layer Two								
Infiltration Sub-Layer	10-11	mg/kg	Site Specific	0	0	0.011	2.72	0
Infiltration Sub-Layer Two	11-12	mg/kg	Site Specific	0.00052	0.451	0.009	0.563	0
Infiltration Sub-Layer Two	12-13	mg/kg	Site Specific	0.00045	0.771	0.011	0.52	0
Infiltration Sub-Layer Two	13-14	mg/kg	Site Specific	0	1.27	0	0.366	0
Infiltration Sub-Layer Two	14-15	mg/kg	Site Specific	0.00051	0.405	0.0083	0.514	0
Infiltration Sub-Layer Two	15-16	mg/kg	Site Specific	0	0	0	0.231	0
Infiltration Sub-Layer Two	16-17	mg/kg	Site Specific	0	0	0	0.343	0
Infiltration Sub-Layer Two	17-18	mg/kg	Site Specific	0	0	0	0.343	0
Infiltration Sub-Layer Two	18-19	mg/kg	Site Specific	0	1.32	0	1.79	0
Infiltration Sub-Layer Three	19-20	mg/kg	Site Specific	0	0.385	0	0.208	0
Layer Three	20-30	mg/kg	Site Specific	--	--	--	--	--
Layer Four	30-45	mg/kg	Site Specific	--	--	--	--	--

TABLE K-5
INITIAL CHEMICAL CONCENTRATIONS AT TIME ZERO FOR SESOIL MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA

Application Area	Depth (feet bgs)	Units	Source	1,2,4-Trimethylbenzene	Acetaldehyde	Dichloromethane	Formaldehyde	Benzene
Layer One								
Infiltration Sub-Layer	0-1	ug/ml	Site Specific	0.002	2.016	0.031	10.872	0.001
Infiltration Sub-Layer Two	1-2	ug/ml	Site Specific	0.002	2.016	0.031	10.872	0.001
Infiltration Sub-Layer Two	2-3	ug/ml	Site Specific	0.002	2.016	0.031	10.872	0.001
Infiltration Sub-Layer Two	3-4	ug/ml	Site Specific	0.000	1.952	0.000	1.839	0.000
Infiltration Sub-Layer Two	4-5	ug/ml	Site Specific	0.001	0.736	0.013	0.969	0.000
Infiltration Sub-Layer Two	5-6	ug/ml	Site Specific	0.000	0.610	0.000	0.748	0.000
Infiltration Sub-Layer Two	6-7	ug/ml	Site Specific	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	7-8	ug/ml	Site Specific	0.000	0.000	0.000	0.000	0.000
Infiltration Sub-Layer Two	8-9	ug/ml	Site Specific	0.000	2.436	0.000	8.630	0.000
Infiltration Sub-Layer Three	9-10	ug/ml	Site Specific	0.000	0.490	0.000	0.298	0.000
Layer Two								
Infiltration Sub-Layer	10-11	ug/ml	Site Specific	0.000	0.000	0.018	4.388	0.000
Infiltration Sub-Layer Two	11-12	ug/ml	Site Specific	0.001	0.728	0.015	0.908	0.000
Infiltration Sub-Layer Two	12-13	ug/ml	Site Specific	0.001	1.244	0.018	0.839	0.000
Infiltration Sub-Layer Two	13-14	ug/ml	Site Specific	0.000	2.049	0.000	0.590	0.000
Infiltration Sub-Layer Two	14-15	ug/ml	Site Specific	0.001	0.653	0.013	0.829	0.000
Infiltration Sub-Layer Two	15-16	ug/ml	Site Specific	0.000	0.000	0.000	0.373	0.000
Infiltration Sub-Layer Two	16-17	ug/ml	Site Specific	0.000	0.000	0.000	0.553	0.000
Infiltration Sub-Layer Two	17-18	ug/ml	Site Specific	0.000	0.000	0.000	0.553	0.000
Infiltration Sub-Layer Two	18-19	ug/ml	Site Specific	0.000	2.129	0.000	2.887	0.000
Infiltration Sub-Layer Three	19-20	ug/ml	Site Specific	0.000	0.621	0.000	0.336	0.000
Layer Three	20-30	ug/ml	Site Specific	--	--	--	--	--
Layer Four	30-45	ug/ml	Site Specific	--	--	--	--	--

NOTE: Concentrations in units mg/kg are dry weight based and are converted to units of ug/ml based on site-specific measurements of soil bulk density (Table I-2).

Conc.(ug/ml)=Conc.(mg/kg)×1000ug/mg×0.001kg/g×1.6131g/cm^3×1cm^3/ml

TABLE K-6
INPUTS FOR VLEACH MODELING
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

Parameter	Units	Application Zone	Source
Simulation run time	years	100	Site Specific
Simulation step time	years	0.1	Site Specific
Number of Layers	unitless	40	Consistent with SESOIL Modeling
Recharge Rate	inches/year	0.08	Site Specific
Recharge Rate	inches/year	0.57	Site Specific
Enhanced Recharge Rate	inches/year	8.672	Site Specific

TABLE K-7
IMPACTS TO GROUND WATER MODELING RESULTS
HUMAN HEALTH RISK ASSESSMENT AND CLOSURE REPORT FOR MOHAWK SUB-AREA
BMI COMMON AREAS (EASTSIDE), CLARK COUNTY, NEVADA
(Page 1 of 1)

		Baseline Rainfall		Normal Post-Development		Enhanced Recharge			
COPC	Depth to Ground-water (ft bgs)	Maximum Migration Depth (ft bgs)	Maximum Soil Moisture Conc. at Groundwater Interface (µg/L)	Maximum Migration Depth (ft bgs)	Maximum Soil Moisture Conc. at Groundwater Interface (µg/L)	Maximum Migration Depth (ft bgs)	Maximum Soil Moisture Conc. at Groundwater Interface (µg/L)	Maximum Measured Groundwater Concentration[(1)] (µg/L)	Residential Water BCL (µg/L)
1,2,4-Trimethylbenzene	45	--	--	GW	2.5 E-11	GW	2.5 E-11	--	--
2,4'-DDE	45	--	--	4.5	NA	4.5	NA	--	--
4,4'-DDE	45	--	--	4.5	NA	4.5	NA	--	--
4,4'-DDT	45	--	--	2.5	NA	2.5	NA	--	--
Acetaldehyde	45	--	--	GW	1.8 E-18	GW	164	12.6	65.7
Acetone-Previous	45	--	--	GW	240	GW	95	46	32,600
Acetone-Revised	45	GW	0.47	GW	694	GW	420	46	32,600
Ammonia	45	--	--	GW	21,488	GW	8,437	11.4	730
Antimony	45	--	--	2.9	NA	5.4	NA	--	--
Benzene	45	--	--	GW	2.0 E-8	GW	2.1 E-8	1.0	5
Beryllium	45	--	--	20	NA	20	NA	--	--
beta-BHC	45	--	--	13	NA	23	NA	--	--
Chromium (Total)	45	--	--	20	NA	20	NA	--	--
Chromium (VI)	45	--	--	20	NA	26	NA	--	--
Cobalt	45	--	--	--	NA	--	NA	--	--
Dichloromethane	45	--	--	GW	1.6 E-5	GW	1.6 E-5	7.6	5
Fluoride	45	--	--	19	NA	19	NA	--	--
Formaldehyde-Previous	45	--	--	42	NA	GW	3.2 E-16	--	--
Formaldehyde-Revised	45	NA	NA	42	NA	GW	4.6 E-16	--	--
Mercury	45	--	--	20	NA	20	NA	--	--
Molybdenum	45	--	--	20	NA	24	NA	--	--
Nickel	45	--	--	20	NA	20	NA	--	--
Nitrate (as N)-Previous	45	--	--	GW	2,000,000	GW	1,254,000	18,100	1,000
Nitrate (as N)-Revised	45	GW	2,000,000	GW	2,000,000	GW	1,359,000	18,100	1,000
Perchlorate-Previous	45	--	--	GW	160,000	GW	31,809	12,000	18
Perchlorate-Revised	45	GW	272,000	GW	140,000	GW	44,000	18,100	18
Silver	45	--	--	20	NA	20	NA	--	--
Thallium	45	--	--	13	NA	14	NA	--	--
Tin	45	--	--	--	NA	--	NA	--	--
Tungsten	45	--	--	19	NA	19	NA	--	--
Vanadium	45	--	--	20	NA	20	NA	--	--
Zinc	45	--	--	20	NA	20	NA	--	--

(1) From Sixth Round Groundwater Monitoring Report (Aug - Sept 2009) for the BMI Common Areas (Eastside).
-- = Not modeled or no data.
NA = not applicable.
Highlight indicates model runs performed based on discussions with NDEP and Consultants in October 2010.

APPENDIX L

LEGAL DESCRIPTION OF THE MOHAWK SUB-AREA