



December 4, 2008

Mr. Brian A. Rakvica, P.E.  
Nevada Division of Environmental Protection  
Bureau of Corrective Actions  
2030 E. Flamingo Road, Suite 230  
Las Vegas, Nevada 89119-0818

**Subject: Removal Action Workplan for Soil, Mohawk Sub-Area, Henderson, Nevada**

Dear Brian:

Basic Remediation Company (BRC) appreciates the opportunity to submit this Removal Action Workplan (RAW) to address the remediation of impacted soil at the Mohawk sub-area. The Mohawk sub-area (hereinafter "the Site") is one of several sub-areas of the BMI Common Areas (Eastside) located in Clark County, Nevada. The Site encompasses an area of approximately 54.7 acres (Figure 2). The Site includes unexcavated ponds, previously excavated ponds, and areas that were not used for any known waste disposal.

The conclusion that remediation of soil at each of the Sites is needed is based on the findings of the field investigations carried out in accordance with the Sampling and Analysis Plan (SAP) for the Mohawk sub-area. The overall goal of this RAW is 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. All work will be completed under the direction of a State of Nevada Certified Environmental Manager.

### **Proposed Remediation Areas**

There are three different types of remediation areas proposed for the Site. These are areas associated with 1) elevated asbestos levels, 2) residual pond contamination, and 3) dioxins/furans concentrations above screening levels in non-pond areas. Figure 1 identifies the sample locations and constituents triggering the proposed remediation at the Site.

The proposed 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 are generally defined as locations with any detected long amphibole fibers and/or locations with greater than five long chrysotile fibers. There are two polygons associated with elevated asbestos levels proposed for remediation at the Site. These are shown on Figure 1. In addition, there is one sample location with six long chrysotile fibers within a pond. This pond also contains elevated concentrations of other constituents, therefore, remediation of this location is based on that particular pond footprint, as discussed below.

Because the ponds at the Site are well defined, proposed remediation for these areas are based on the current footprint of each pond with elevated chemical concentrations (generally near or above residential screening levels). There are two ponds with elevated chemical concentrations detected in the recent sampling event: PUA-03 and PUC-02. Therefore, the full extent of the ponds within the Site are proposed for additional remediation. However, these ponds have been bisected by Mohawk Drive, therefore, the proposed remediation will be the entire pond area to the east of Mohawk Drive. Chemicals triggering these pond remediations are chrysotile and concentrations of thallium and vanadium in historical discrete samples in pond PUC-02, and concentrations of chromium and vanadium in the recent samples in pond PUA-03. The proposed pond remediation areas are shown on Figure 1.

In addition, historical composite data from pond PUA-01 indicated the potential for elevated levels of vanadium. Therefore, although no remediation is proposed for this pond, additional confirmation sampling was conducted. None of the first round of confirmation samples, nor the three additional confirmation samples indicated the presence of elevated levels of vanadium in pond PUA-01. Therefore, no additional remediation is proposed for this pond.

Because the extent of impact associated with non-pond sample locations with elevated dioxins/furans is likely to be small, the remediation areas are based on a 50-foot square area around these sample locations. There are two areas associated with elevated dioxins/furans levels proposed for remediation at the Site. These are shown on Figure 1.

### **Confirmation Sampling**

Following remediation, confirmation surface soil sampling will be conducted at each of the original sample locations for the asbestos remediation areas. Samples will be 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 will be collected from each of the remediated ponds. In addition, as indicated above, three additional samples will be collected in pond PUA-01. Proposed confirmation sample locations are shown on Figure 2.

Field activities will be conducted in accordance with applicable standard operating procedures (SOPs; BRC, ERM and MWH 2007). The BRC Quality Assurance Project Plan (QAPP; BRC and ERM 2008) and Health and Safety Plan (HASP; BRC and MWH 2005) prepared for the BMI Common Areas will be used for confirmation soil sampling.

The proposed analyte list is composed of those chemicals that triggered the remediation at each sample location. These include dioxins/furans, metals, and asbestos. Table 1 presents the proposed analyte list for each of the confirmation sample locations.

Following collection and analysis of confirmation soil samples, the data will be discussed with the NDEP. If results are considered acceptable, a risk assessment will be conducted to evaluate the potential risks to future on-site human receptors at each Site. The receptors identified to be evaluated in the risk assessment will be consistent with the proposed development of the Site.

### **Schedule**

Once final approval of the RAW is received from NDEP, field implementation activities can commence within one week. BRC will provide NDEP with at least two days notice prior to the initiation of field activities at the Site. It is anticipated that this work can be completed within one week, depending on field conditions. The confirmation soil samples will be submitted to the laboratories and placed on a standard turn around time.

**Closing Remarks**

See attached for appropriate certification language and signature. Please direct any remaining questions or comments you may have to me at 626-382-0001.

Sincerely,

Basic Remediation Company



Ranajit Sahu, CEM  
Project Manager

cc: Jim Najima, NDEP, BCA, Carson City, NV 89701

Attachments: Figure 1 – Mohawk Sub-Area Proposed Remediation Areas  
Figure 2 – Mohawk Sub-Area Confirmation Sample Locations  
Table 1 – Proposed Confirmation Sample Analyses

**References**

- Basic Remediation Company (BRC) and MWH. 2005. BRC Health and Safety Plan, BMI Common Areas, Clark County, Nevada. October.
- Basic Remediation Company (BRC), ERM, and MWH. 2007. BRC Field Sampling and Standard Operating Procedures, BMI Common Areas, Clark County, Nevada. August.
- Basic Remediation Company (BRC) and ERM. 2008. BRC Quality Assurance Project Plan. BMI Common Areas, Clark County, Nevada. April.

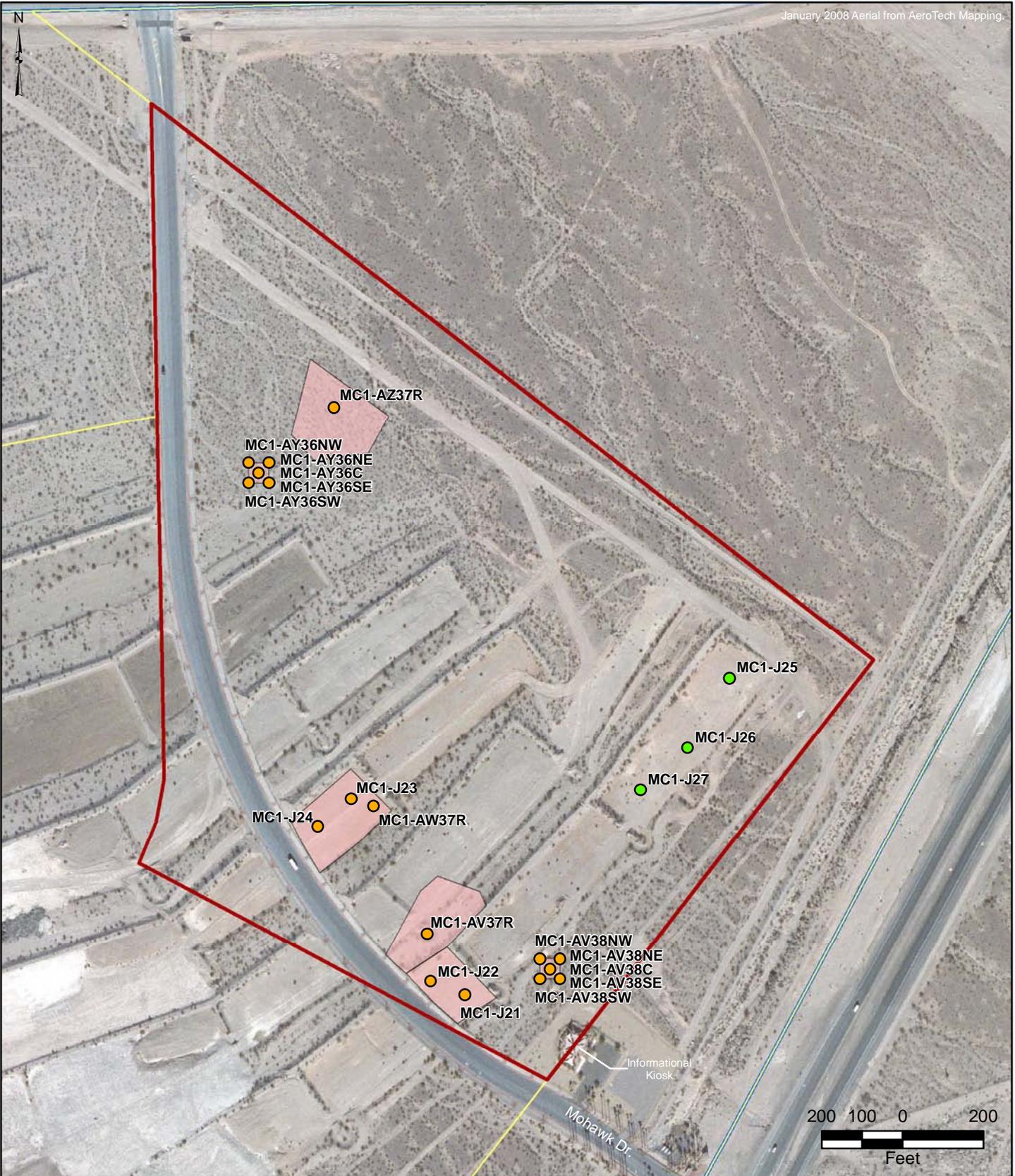
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I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession 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.



December 4, 2008  
Dr. Ranajit Sahu, C.E.M. (No. EM-1699, Exp. 10/07/2009)      Date  
BRC Project Manager





- Mohawk Sub-Area
- Site AOC3 Boundary
- Eastside Soil Sub-Areas
- Proposed Scrape Areas (3 Acres)
- Proposed Confirmation Sample Location
- Additional Samples Already Collected

BMI Common Areas (Eastside)  
Clark County, Nevada

FIGURE 2

**MOHAWK SUB-AREA  
PROPOSED CONFIRMATION  
SAMPLE LOCATIONS**



Prepared by  
MKJ (ERM)



Date  
12/04/08

JOB No. 0064276  
FILE: GIS/BRC/MOHAWK/RAW\_FIGURE2.MXD

**TABLE 1**  
**PROPOSED CONFIRMATION SAMPLE ANALYSES**  
**MOHAWK SUB-AREA**  
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Sample Location	Analyses
MC1-AV37R	Asbestos
MC1-AV38C	Dioxins/Furans; PCB Congeners; Metals (6020); Radionuclides
MC1-AV38NE	Dioxins/Furans; PCB Congeners
MC1-AV38NW	Dioxins/Furans; PCB Congeners
MC1-AV38SE	Dioxins/Furans; PCB Congeners
MC1-AV38SW	Dioxins/Furans; PCB Congeners
MC1-AW37R	Asbestos
MC1-AY36C	Dioxins/Furans; PCB Congeners; Metals (6020); Radionuclides
MC1-AY36NE	Dioxins/Furans; PCB Congeners
MC1-AY36NW	Dioxins/Furans; PCB Congeners
MC1-AY36SE	Dioxins/Furans; PCB Congeners
MC1-AY36SW	Dioxins/Furans; PCB Congeners
MC1-AZ37R	Asbestos
MC1-J21	Metals (6020)
MC1-J22	Metals (6020)
MC1-J23	Metals (6020)
MC1-J24	Metals (6020)
MC1-J25	Metals (6020) (collected on 11/26/08)
MC1-J26	Metals (6020) (collected on 11/26/08)
MC1-J27	Metals (6020) (collected on 11/26/08)