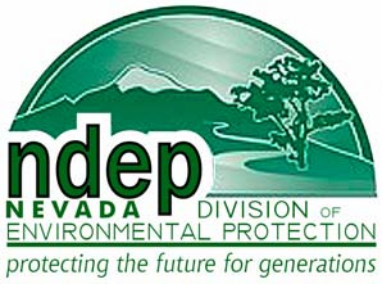
Groundwater Monitoring Plan

Corrective Action Management Unit (CAMU) Area

Submitted to:



December 16, 2008

Prepared for:

Daniel B. Stephens & Associates, Inc.

260 Newport Center Drive • Newport Beach, California 92660

Responsible CEM for this Project

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.

Stephen J. Cullen, Ph.D., C.E.M. (No. 1839, Exp. 11/12/09)
Daniel B. Stephens & Associates, Inc.

Individuals Who Provided Technical Input to this Document

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Daniel B. Stephens & Associates, Inc.

Table of Contents

Section **Page**

List of Figures

Figure

List of Tables

Table

List of Appendices

Appendix

Groundwater Monitoring Plan
Corrective Action Management Unit (CAMU) Area

1. Introduction

This revised groundwater monitoring plan for the Corrective Action Management Unit (CAMU) Area portion of the Basic Management, Incorporated (BMI) Complex (the "Site") in Clark County, Nevada (Figure 1) has been prepared by Daniel B. Stephens & Associates, Inc. (DBS&A) for Basic Remediation Company (BRC). The scope of work was previously discussed by BRC and Nevada Division of Environmental Protection (NDEP) representatives, in teleconferences recorded in meeting minutes dated March 12, 2008, April 30, 2008, and May 6, 2008. In addition, BRC and DBS&A prepared a CAMU monitoring plan for NDEP review and comment dated September 30, 2008 and a revised plan dated October 28, 2008. This current revised plan addresses NDEP comments dated November 13, 2008 (Appendix A).

This work plan reflects the outcome of these recent discussions and NDEP comments. This plan presents the proposed wells that will be sampled, the proposed frequency of sampling, and the proposed analyte list for the monitoring program. The scope of work consists of:

- Monitoring well inventory compilation and review (CAMU area)
- Updating the structure contour and paleochannel map of the upper Tertiary Muddy Creek formation (UMCf) in the CAMU area
- Evaluation of recently updated regional groundwater quality data
- Selection of proposed wells for the CAMU monitoring plan
- Selection of a proposed sampling frequency
- Development of a process to periodically update the monitoring plan as needed

1.1 Objectives

The objectives of this monitoring plan are to:

- Inventory, identify, and select existing wells screened in the Shallow, Middle, and Deep Zones to adequately characterize local groundwater conditions within and adjacent to the CAMU area

- Inventory, identify, and select existing wells to adequately characterize groundwater impacts immediately downgradient of and potentially attributable to the CAMU or BMI landfills, if any, that could be distinguishable from more regional impacts

- Identify existing wells adjacent to the CAMU that are routinely sampled by others, to monitor groundwater impacts from off-site sources

- Present the rationale for CAMU monitoring program well selection to demonstrate the adequacy of the selected well network

- Evaluate the potential for current and/or future data gaps in the proposed CAMU monitoring plan

- Present a systematic methodology and specific immediate actions for addressing data gaps and incorporating potential future revisions to the proposed monitoring plan (decision tree)

1.2 Site Description

The CAMU Conceptual Site Model (CSM) report prepared in 2007 presents detailed information regarding historical site operations, regional and local hydrogeology, the results of prior investigations, and site impacts (BRC and DBS&A, 2007). A brief summary of the CAMU area excerpted from the CSM report is presented below.

The CAMU Site is located within the boundaries of property owned and operated by BRC, in an area formerly designated as the Clark County Industrial Plant Area, and is bordered by former and present industrial facilities of the BMI Industrial Complex.

The CAMU Site is bounded on the south by the former Pioneer Chlor-Alkali Company, Inc., now owned by Olin Chlor Alkali Products (Olin) and Tronox (successor to Kerr-McGee Chemical

LLC) to the east. The northern CAMU Site boundary is approximately defined by the northern limit of the closed BMI Landfill. Off-site groundwater extraction, treatment, and re-injection systems are operated by others both to the north (Olin/Montrose) and to the east (Tronox) of the CAMU area. The Olin/Montrose system is partially located on BRC property. Additional BRC property is located to the west. The CAMU Site historical features include the following (Figure 2):

- The closed BMI Landfill
- The former Borrow Area (Borrow Pit)
- The Western Ditch Area and Western Ditch Extension
- The Slit Trench Area (STA)

Chemical manufacturing, storage, handling, distribution, and waste disposal facilities have historically operated south (upgradient) of the CAMU Site (Appendix B). These operations have been documented to have resulted in soil and groundwater impacts with volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), dioxins/furans, organic acids, total dissolved solids (TDS), pesticides, and metals. Additional upgradient soil impacts may exist.

Groundwater beneath and upgradient of the CAMU Site has been impacted with chemicals including VOCs, SVOCs, pesticides, metals, polychlorinated biphenyls (PCBs), dioxins/furans, and radionuclides. Upon entering the groundwater, the chemicals from the upgradient off-site locations have migrated northward and beneath the CAMU Site.

For chemicals found at elevated concentrations in CAMU groundwater, such as benzene, chlorobenzene, substituted benzenes, tetrachloroethylene (PCE), and chloroform, CAMU Site upgradient wells typically had high concentrations as well (BRC, 2008). Historical and more recent groundwater isoconcentration plots indicate that significant groundwater sources exist for these chemicals at off-site upgradient locations.

Recently updated maps for PCE, benzene, and TDS are reproduced for reference in Appendix C to illustrate the overall trend in off-site, upgradient groundwater quality and Site-related chemical (SRC) transport toward and across the CAMU area. Additional maps of other parameters are available for review in the recent CAMU groundwater monitoring report (BRC,

2008). The groundwater transport patterns of the other sampled parameters are largely consistent with the isopleth maps for PCE, benzene, and TDS.

The relative concentrations of groundwater constituents from upgradient off-site impacts are high enough to effectively mask the detection of groundwater impacts downgradient of the CAMU that are due solely to leaching from the CAMU. Groundwater impacts detected in CAMU perimeter wells appear to originate mostly or solely upgradient (to the south), where higher concentrations are consistently detected in groundwater. Perchlorate impacts in groundwater to the west of the CAMU are interpreted to originate at the upgradient American Pacific (AMPAC) facility (former Pepcon).

PCE concentrations, however, are relatively low where detected along the southern CAMU boundary, but a relatively high concentration is detected (in well AA-BW-04A) along the northern CAMU boundary. PCE was also detected in STA soil gas samples in 2005 (BRC, 2005). The AA-BW-04A groundwater data suggest that the STA may have also contributed to PCE impacts to groundwater; however, the highest regional PCE detection (1,100 μg/L) is upgradient (well EC-3) within the Plants Area (Appendix C). The PCE detection in AA-BW-04A may originate in the STA or, like other impacts, may be due to more regional PCE impacts originating upgradient. The relatively low concentrations at the southern CAMU border are potentially due to dilution from apparent leakage from nearby ponds, as evidenced by the high TDS concentrations in this area and other anomalous chemical concentrations noted in this area during the recent groundwater monitoring. BRC plans to excavate the STA in the near future. Excavation of the STA will remove a potential source of groundwater impacts in the CAMU area.

The likelihood of contribution of chemicals from the CAMU Site to groundwater is also potentially implied by observed impacts to deep soils (greater than 10 feet below ground surface [ft bgs]) and by historically collected groundwater grab samples with elevated concentrations from the interior of the CAMU Site (BRC, 2005).

Covering and capping of the buried waste in the north and south landfill lobes and historical removal of surface liquids from ditch sections at the CAMU Site were conducted in order to reduce the potential for chemical leachate to migrate to and impact groundwater.

1.3 Hydrogeology

1.3.1 Groundwater Occurrence and Quality

Groundwater at the Site occurs in two primary water-bearing units. The "first water" occurrence is the Shallow Zone, which typically occurs in alluvial sands and gravels of Quaternary age that are generally referred to as the Quaternary alluvium (Qal). In some locations, the water table is first encountered in the UMCf, a lithologic unit comprised mostly of silts and clays that underlies the Qal. The UMCf is a lacustrine deposition of Tertiary age. Groundwater flow in the Shallow Zone is directed primarily northerly in the CAMU area (Figure 3).

The regional and local hydrogeology of the Site was detailed in the CSM Report (BRC and DBS&A, 2007) based primarily on monitoring well data from several previous investigations (Figure 4). In the vicinity of the CAMU, groundwater is typically encountered first in the Qal under unconfined conditions. Work performed by MWH Americas, Inc. (BRC and MWH, 2005) indicated that the Qal is unsaturated toward the east, with saturation first noted in the uppermost UMCf, close to the contact between the Qal and the UMCf.

The second water-bearing unit underlying the Shallow Zone is confined water in the Middle Zone that occurs in the UMCf at locations and depths where the sand content of the UMCf is relatively higher. These sandy lenses are typically thin water-bearing lenses encountered sporadically during drilling and sampling at the site. The sand lenses have been encountered within the generally finer matrix of the UMCf that extends from the Qal/UMCf interface downward through the maximum depth explored by BRC in the CAMU area (200 ft bgs) during the 2005 CAMU Investigation (BRC and MWH, 2005).

Water-bearing sand lenses within the UMCf can occur at relatively shallow depths. For example, during the 2005 field investigation, free water in the UMCf was encountered in a sand lens at a depth of 12 feet below the observed Qal/UMCf contact at monitoring well MCF-BW-09B. At locations where alternating layers of relatively coarse-textured and relatively fine-textured soils occur in sequence at the base of the Qal, the contact between the Qal and UMCf is not distinct and a transition zone between the Qal and UMCf has been observed.

Water observed in sand lenses of the UMCf is typically confined, and monitoring well water rises above the level at which it was first observed during the initial drilling of a borehole.

It is noteworthy that continuous core sonic drilling techniques were used to detect and characterize the thin, more sandy, saturated lenses within the UMCf. These lenses may have not been recognized, or even missed entirely, by sampling during earlier drilling operations that did not recover continuous cores.

A third groundwater-bearing zone, referred to as the Deep Zone, has been identified on the BRC Eastside property, located to the east and northeast of the CAMU, during a 2004 field investigation (BRC, 2004). This confined water bearing zone was identified as the "deep water-bearing zone" and was observed to occur reasonably continuously across the Eastside property within a depth range of approximately 350 to 400 ft bgs. Additional monitoring wells subsequently installed on the Eastside property in 2008 confirmed the presence of this deep water-bearing zone. The Deep Zone was also encountered in wells installed by others in the CAMU area (well MW-8 and the TR-series wells).

Water in the Deep Zone is also under pressure, and water levels rise up to hundreds of feet higher than the depth at which water was first encountered. These monitoring wells have been relatively poor producers of water, with well recharge rates in the nominal range of 1 gallon per minute. To date, continuous drilling to this depth range has not occurred beneath the CAMU, and while the deep water-bearing zone may exist beneath the CAMU, it has not yet been observed.

It is anticipated that, although significant impacts have been detected in the Shallow Zone and the Middle Zone in the CAMU area, the currently observed upward hydraulic gradients (where present) are anticipated to generally inhibit significant downward SRC migration both at the Eastside property and at the CAMU area.

1.3.2 Tertiary Upper Muddy Creek Formation Structure Contour Map

ERM produced a structure contour map for the UMCf in the CAMU area in 1999 (ERM, 1999) using contact data from borings and wells mostly installed north of the CAMU for the Olin/Montrose pumping/treatment/re-injection system. The map was adapted from earlier work completed by Tronox in 1998. The contact data in the earlier maps, however, were not

collected using the more accurate sonic drilling/sampling method that BRC used in 2004 and 2005. The 1999 map also included data around the CAMU perimeter and some data points to the south, but no data were presented for the central interior of the CAMU.

Three paleochannels incised into the UMCf surface were delineated north of the CAMU, based on only limited data primarily to the west. A fourth paleochannel was identified crossing the south-central CAMU boundaries. All four paleochannels were roughly oriented with flow to the northeast.

Tronox completed a structure contour map as part of conceptual model development completed in 2005 (Tronox, 2005, Plate 2). The Tronox map is also based on data primarily from north of the CAMU with some contact data included from the east and south. Three paleochannels are inferred that are broadly consistent with the ERM (1999) map. Again, no data were presented for the central interior of the CAMU.

BRC completed a regional structure contour map of the UMCf in 2006 (DBS&A, 2006) using geophysical survey and depth-to-contact data from nearly 400 borings and wells in the Eastside property and in the CAMU area. This map focused primarily on the Eastside property and no new data were available for the central interior portion of the CAMU. One primary paleochannel was labeled in the east-central portion of the CAMU.

In 2008, Hargis + Associates, Inc. (Hargis) presented a structure contour map for the area north of the CAMU near the Olin/Montrose groundwater treatment system (GWTS) (Hargis, 2008a). The Hargis map is broadly consistent with earlier work. The contours infer that a paleochannel is present near the west end of the pumping system, one near the east-central CAMU boundary, and a smaller one near the northeast corner of the CAMU. The contact elevations, however, are lower overall because Hargis, for the first time, differentiated a shallow transitional UMCf unit from the deeper UMCf surface shown on the map.

The 2006 BRC regional map was partially updated for the Eastside area groundwater flow modeling domain in 2008 (DBS&A, 2008) with supplemental boring data from new Eastside borings and monitoring wells. This update did not include the CAMU area. Figure 5 presents the 2008 BRC map recently updated again to include 2004 and 2005 Qal/UMCf contact data from CAMU area borings and wells.

The updated structure contours on the map delineate two relatively major paleochannels (east and west) and one relatively minor paleochannel near the northeast corner of the CAMU. The three paleochannels are roughly coincident with those mapped by Hargis (2008a), Tronox (2005), and ERM (1999), but the location of each paleochannel varies slightly between interpretations.

The updated BRC map differs from the earlier work of ERM (1999) and Hargis (2008a) in that, like Tronox (2005), one paleochannel is shown to extend across the central portion of the CAMU. Tronox (2005), however, shows the easternmost paleochannel (not the central paleochannel) originating in the southwest, extending across the CAMU, and continuing northeast, while the BRC updated map shows the central paleochannel extending across the CAMU. The updated BRC data also show that the central paleochannel crossing the CAMU originates upgradient, more to the south, rather than the southwest as inferred by Tronox (2005).

1.3.3 Paleochannel Flow and SRC Transport

Kleinfelder (2008) completed an aquifer testing program for BRC in 2008 that included slug-testing of ten CAMU wells along the southern CAMU boundary (Figure 6). The average horizontal hydraulic conductivity (Kh) data values ranged from 1.04 to 69 feet per day (ft/d) (Kleinfelder, 2008). The two highest Kh values (26.53 and 69 ft/d) are located near the central paleochannel delineated by UMCf contact data. Although preferred groundwater flow and SRC transport may be inferred by the higher Kh data, the Shallow Zone groundwater flow map for the area (Figure 3) does not indicate that higher-Kh paleochannels affect groundwater flow near the CAMU. Regional isoconcentration contour maps (Appendix C) of groundwater SRC data, however, show that off-site sources are impacting the CAMU area from the south in a northerly flow direction consistent with the direction of the thalweg of the delineated paleochannels (BRC, 2008).

Except for possibly the northeast area of the CAMU, near the eastern paleochannel, there does not appear to be significant lateral control on SRC transport from paleochannels across the majority of the CAMU area. Near the eastern paleochannel, however, some detected SRC concentrations are lower to the east of the paleochannel (such as in wells AA-BW-02A and AA-BW-03A) while concentrations are higher to the west (such as in well AA-BW-04A and

AA-BW-05A). These data suggest that the eastern paleochannel may exert some lateral control on SRC transport from the south.

2. Proposed Groundwater Monitoring Plan

2.1 Monitoring Well Inventory

An inventory of existing and historical monitoring wells in the CAMU area was developed using archived boring logs, historical maps, and more recent investigation reports. BRC also completed a field survey of well conditions in September 2008 to supplement a recent survey conducted by Montrose in August 2008. The well inventory focused on the immediate perimeter of the CAMU and wells north and south of the Olin/Montrose GWTS. BRC wells are included with those owned by adjacent properties. The results of the inventory are shown in Table 1 and Figure 4.

Wells were first installed in this area in the early 1980s and many of the older wells have been abandoned in order to accommodate various construction projects over the years. Some well records, logs, and construction data are no longer available.

BRC also reviewed the technical memorandum prepared by Hargis dated December 15, 2008 and entitled *BMI Plant Sites and Common Area Projects, Henderson, Nevada, Workplan for Additional Monitor Wells to Further Delineate Vertical Contaminant Plumes and Hydraulic Gradients* (Hargis, 2008b). The new wells proposed by Hargis generally coincide with wells proposed by BRC for monitoring in this plan. As a result, four of the five new Hargis wells are not included in Table 1 and Figure 4. One of the deep wells (MC-MW-28, labeled as proposed well P3 in this plan), however, is included as an upgradient Deep Zone well in BRC's monitoring plan.

2.2 Monitoring Well Selection and Proposed Plan

A subset of the inventoried wells was selected for the CAMU monitoring plan, based on well owner, well condition, well location, and screen depth. Table 2 presents the subset of the inventoried wells in the CAMU area that were selected for monitoring. Wells that were not selected for monitoring are also included on Table 2, along with a rationale for the non-selection.

Wells that were not selected for monitoring were recently abandoned, not located in the field, co-located with newer or similarly screened wells, or located relatively far from the CAMU perimeter and monitor other off-site impacts (such as AMPAC wells to the west). Figure 7 presents the final group of wells selected for the BRC monitoring plan.

The selected plan wells (Table 2) provide adequate lateral and vertical coverage around the perimeter of the CAMU. The highest SRC concentrations are consistently detected mostly along the southeastern, eastern, and northeastern CAMU boundary, where the majority of monitoring wells are also located.

In discussion with BRC, NDEP noted that groundwater at the upgradient, southwestern CAMU area is relatively less impacted than in other portions of the CAMU perimeter. Existing wells MCF-BW-11A and AA-BW-12A were selected to provide monitoring program data in the south-central CAMU area near the southwestern extent of groundwater impacts.

At the southeastern CAMU perimeter, existing Shallow Zone wells EC-2, AA-BW-08A, AA-BW-08B, AA-BW-09A, and AA-MW-07 have been selected to provide coverage with a lateral well spacing approximating 300 feet. Additional upgradient wells are not proposed by BRC because the existing wells are considered to provide sufficient coverage.

Along the eastern CAMU boundary, existing Shallow Zone wells AA-BW-1A, AA-BW-02A, and AA-BW-03A provide adequate coverage of groundwater quality and water levels in this area to supplement data from wells upgradient (to the south) and downgradient (to the north).

To the north, the existing pumping wells (Olin/Montrose) are located between about 300 and 500 feet north of the CAMU boundary. Shallow Zone monitoring wells north of the active pumping wells are not proposed for sampling. Near the northeast corner of the CAMU, existing Shallow Zone wells M7B, H-28, MC80, and AA-BW-04A were selected to evaluate potential impacts to the Shallow Zone originating from the CAMU area. These wells are also positioned to roughly approximate a 300-foot lateral spacing: the wells in this area are located between about 180 and 240 feet apart (Figure 7).

To the west along the northern CAMU boundary, wells AA-BW-05A, H-21R, H-43, and AA-BW-06A also approximate a 300-foot lateral spacing. The largest distance is between wells

AA-BW-04A and AA-BW-05A (approximately 400 feet); however, these wells are considered to be appropriately located to monitor groundwater quality north of the CAMU boundary. Wells in the central portion of the northern boundary are located between approximately 210 and 290 feet apart.

Well AA-BW-07A is included in the monitoring plan to characterize groundwater quality along the western boundary of the CAMU area. Additional wells to the west are not included in the monitoring program since groundwater in this area is relatively unimpacted. Groundwater impacts further to the west of AA-BW-07A in this area are interpreted to be due to perchlorate sources originating at the upgradient AMPAC facility (former Pepcon).

Middle Zone wells MC-MW-10, MC-MW-11, MC-MW-12, TR-11, and proposed wells P1 and P2 (to be relabeled once installed by others) were selected to provide coverage in the Middle Zone to the north (downgradient) and south (upgradient). Deep Zone wells MW-8, P3 (proposed, upgradient), and TR-12 (downgradient) were selected to evaluate Deep Zone groundwater quality.

2.3 Proposed Analytical Program

BRC has completed several rounds of monitoring well sampling on its properties for the full list of SRCs. The proposed plan for CAMU groundwater monitoring will also include SRC list parameters (Tables 3 and 4). However, as discussed below, with NDEP approval, the analyte list will be reduced incrementally as the CAMU groundwater dataset grows over time and some parameters can be excluded from future sampling events without an overall loss of program data quality.

Groundwater sampling of the selected wells (Table 2) is proposed to occur initially on a quarterly basis for one year. With NDEP approval, the quarterly sampling frequency will then be reviewed for possible reduction to semiannual or annual sampling as the CAMU groundwater dataset grows in size, allowing the elimination of redundant data collection and the justification of a reduced sampling frequency. Reduced sampling frequency in the future will adequately characterize CAMU area groundwater because:

- The CAMU is currently under construction (estimated to be completed in 2010), and the new liner is designed to not leak or deteriorate over the short or long term.

- Upgradient contamination, which likely masks CAMU area leakage, will persist for the foreseeable future, so additional data from more frequent monitoring events would be anticipated to provide only generally redundant data regarding CAMU area contributions to groundwater impacts.

BRC understands that adjacent property owners also conduct periodic well sampling events and that data from these events are available. Some wells proposed for monitoring by BRC may be included in future monitoring events by others, in which case duplicate sampling will not be necessary. If needed, however, BRC will sample for analytes missing in the adjacent site dataset(s). Currently, the following wells proposed in the BRC monitoring plan are sampled by adjacent sites (Table 3):

- AA-BW-08A
- AA-BW-12A
- AA-MW-07
- EC-2
- MCF-BW-11A
- MC-MW-10
- MC-MW-11
- MC-MW-12
- MW-8
- TR-11
- TR-12

BRC will coordinate with the owners of adjacent sites to receive and use the available analytical data from these wells for review and reporting after each sampling event. When BRC reports the results of CAMU groundwater monitoring, it will include the most recent appropriate off-site data that are available when BRC begins analyzing its own monitoring data for reporting purposes.

2.4 Future Monitoring Plan Updates and Revisions

BRC recognizes that the monitoring plan may need to be updated or revised in the future based on newly received groundwater flow or well sampling data. The NDEP will review and approve any revisions to the plan. Plan reviews are proposed to be completed annually. A review of the current plan may indicate that an update or modification is not currently needed. However, potential updates and modifications to the plan are anticipated to be proposed if:

- Analytical groundwater sampling data indicate that the concentration of an analyte of interest has increased over 1 order of magnitude between two consecutive sampling events.

- Water level data indicate the direction of regional or local horizontal groundwater flow has changed more than 45 degrees between two consecutive sampling events.

- Water level data indicate that vertical gradients are consistently changing between two consecutive sampling events or have changed for the first time when compared to available historical data.

- New wells are installed in the vicinity of the CAMU.

- Wells in the current plan are abandoned or determined to be no longer functional.

- BRC or NDEP determines that the overall objectives of this proposed monitoring plan are not being met.

- Groundwater data from earlier sampling rounds are reviewed to determine which analytical parameters on the list can be excluded from future sampling events without a loss of quality in the overall monitoring program.

- Groundwater data indicate that one or more lateral or vertical plume boundaries need further definition with supplemental wells or additional sampling at existing wells.

- Groundwater data indicate that the current plan includes sampling for redundant data and that plan objectives can be met by sampling fewer wells going forward.

- NDEP and BRC mutually agree that it is appropriate for any other reason.

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Figures

N

Las Vegas Wash Extent

CITY OF HENDERSON LANDFILL

WESTON HILLS DEVELOPMENT

TUSCANY DEVELOPMENT

CITY OF HENDERSON BIRD VIEWING PRESERVE

CITY OF HENDERSON NORTHERN RIB PONDS

CITY OF HENDERSON WATER RECLAMATION FACILITY

Parcel 3

Historic Ditches

SUNSET ROAD

Parcel 4B

Parcel 5/6

Trade Effluent Ponds

Parcel 9

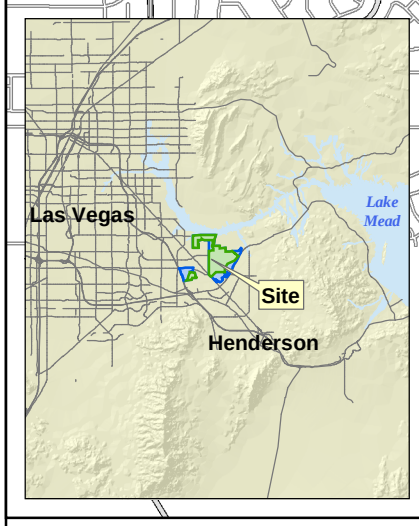
CITY OF HENDERSON SOUTHERN RIB PONDS

CORRECTIVE ACTION MANAGEMENT UNIT (CAMU)

BMI Siphon

Parcel 4A

Industrial Facilities



2,000 1,000 0 2,000

Feet

CAMU Site

Site Soil Boundary

Site AOC3 Boundary

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE 1

SITE LOCATION

Basic Remediation COMPANY

Prepared by:	Date	JOB No. 0064276
MKJ	08/15/07	FILE: GIS/BRC/CAMU_GMP/FIGURE1.MXD

115°1'48"W
115°1'12"W
115°0'36"W
115°0'0"W
36°3'0"N

N

PIONEER/MONTROSE
GROUNDWATER
TREATMENT SYSTEM

WARM SPRINGS ROAD

EXISTING
LANDFILL

WESTERN DITCH
EXTENSION

BORROW
AREA

I-515

SLIT TRENCHES

WESTERN DITCH

AMERICAN POTASH & CHEMICAL CORP

PIONEER CHLOR ALKALI COMPANY

400 200 0 400
Feet

Site Boundary
Historical Effluent Ponds
Existing Landfill
Slit Trenches
Western Ditch

CAMU Sub-Areas

- Eastern W. Ditch Area
- Northern Landfill Lobe
- Northern Lobe of the Borrow Area
- Slit Trench Area (STA)
- Southern Landfill Lobe
- Southern Lobe of the Borrow Area
- Western W. Ditch Area

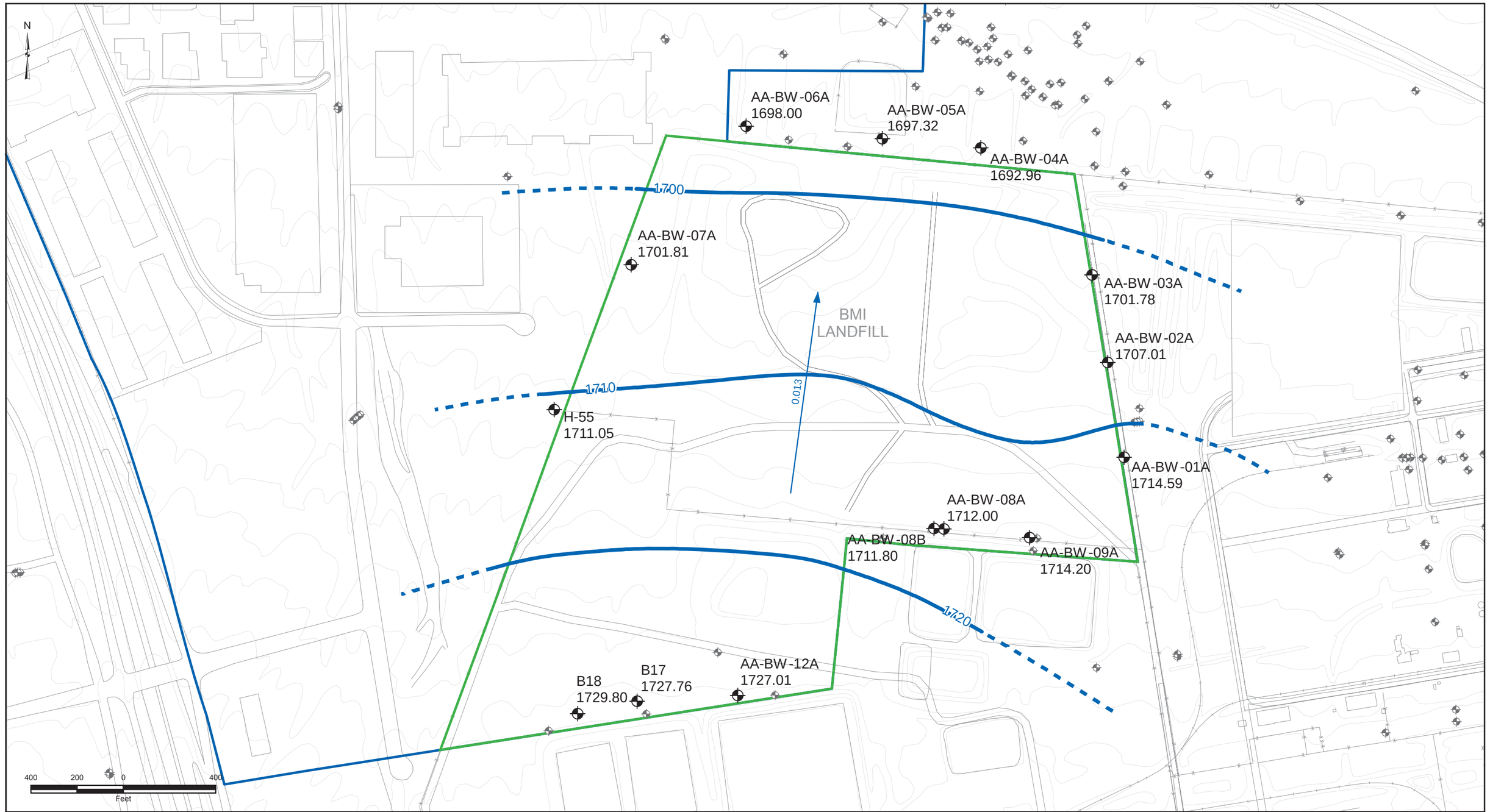
Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE 2

SITE FEATURES

Basic Remediation COMPANY

Prepared by:	Date	JOB No. 0064276
MKJ	08/15/07	FILE: GIS/BRC/CAMU_GMP/FIGURE2.MXD



Site AOC3 Boundary
Site Soil Boundary
Ditches
Water Level Contour (dashed where interred)
BRC Monitoring Wells
Other Monitoring Wells

CAMU GROUNDWATER
MONITORING REPORT
(OCTOBER-NOVEMBER 2007)

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

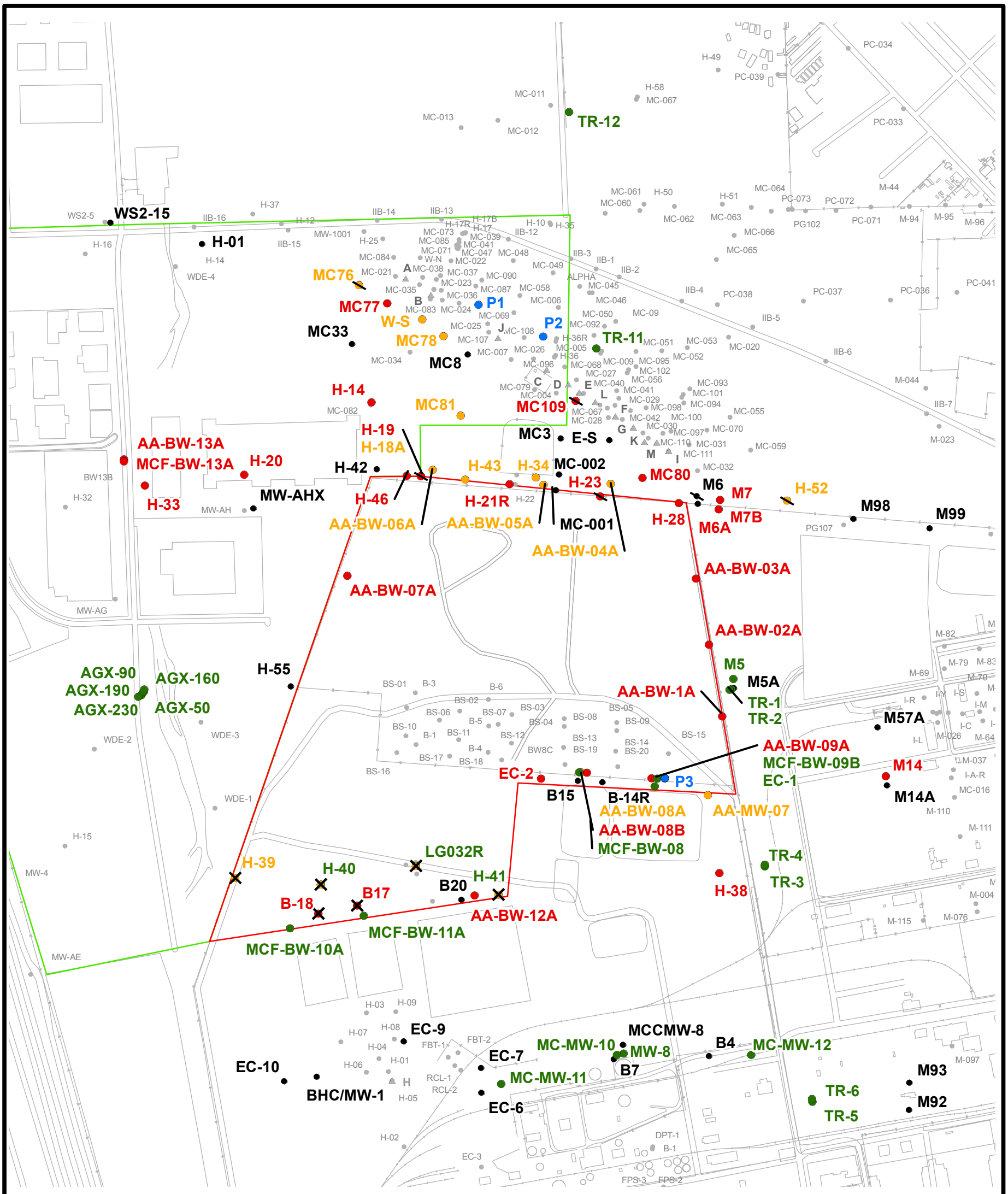
FIGURE 3

BMI CAMU AREA POTENTIO-METRIC SURFACE MAP OF SHALLOW ZONE WELLS

Basic Remediation COMPANY

Prepared by: BRM MWH
Date 06/12/08
JOB No. 0074742
FILE: GIS/BRC/CAMU_GW/FIGURE3-1.MXD

S:/PROJECTS/BRC/ES08.0154_BRC_CAMU_GWM_WORK_PLAN/GIS/MXD/FIG04_MONITOR_WELLS_UMCF.MXD 805121



Explanation

- Extraction well (lettered series)
- No log or screen interval data available
- Screened in Qal
- Screened in Qal/UMCf (≥1 ft in UMCf)
- Screened in UMCf
- Proposed monitoring well in Tertiary Muddy Creek formation (Companies)
- Other monitoring well or soil boring (see text for discussion)
- Well not found in field
- Abandoned well
- Qal — Quaternary alluvium
- UMCf — Upper Tertiary Muddy Creek formation
- Site AOC3 boundary
- Site soil boundary

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

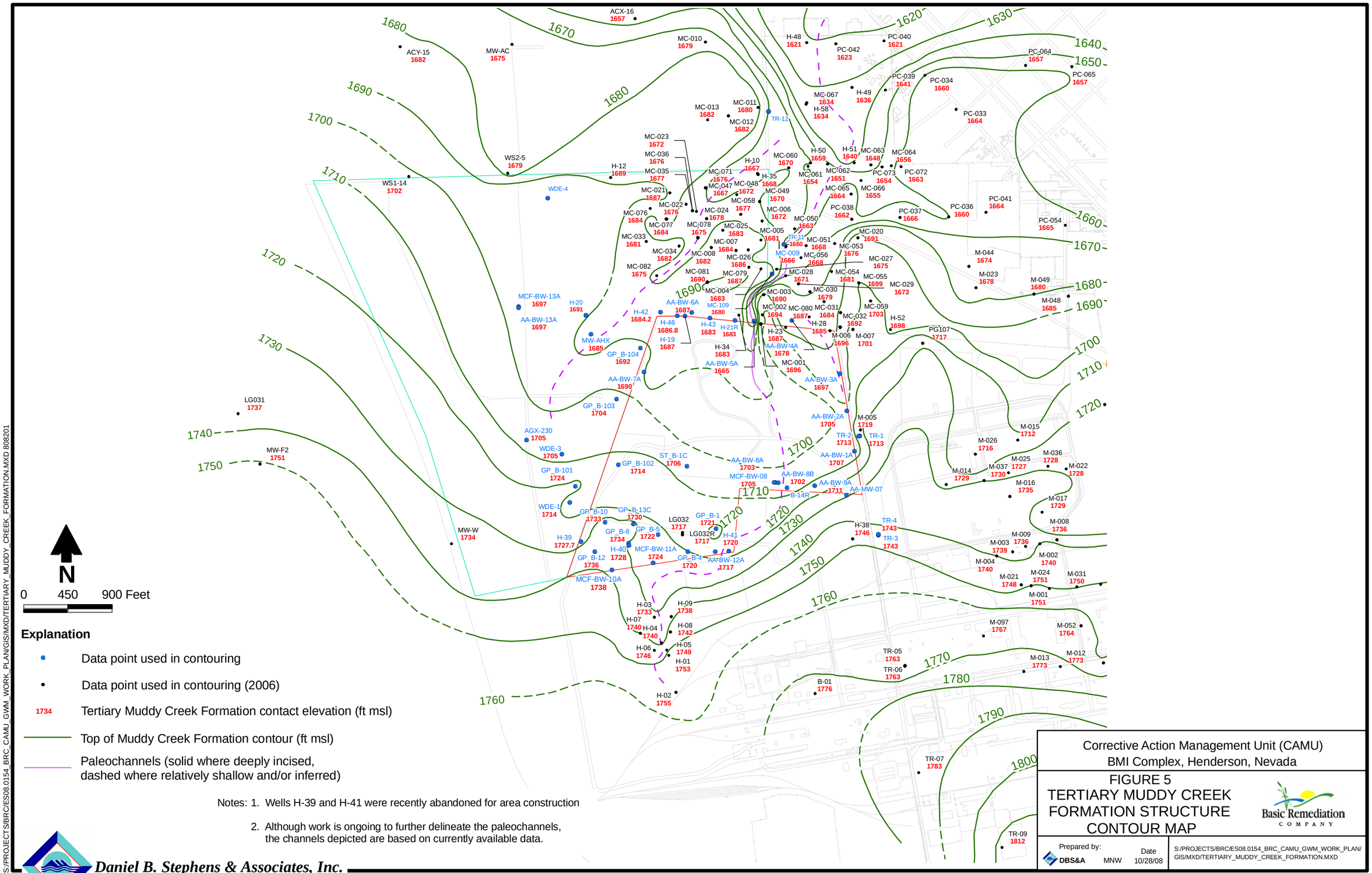
FIGURE 4
CAMU AREA
MONITORING WELLS

Basic Remediation COMPANY

Prepared by: DBS&A CRS Date 12/15/08

S:/PROJECTS/BRC/ES08.0154_BRC_CAMU/GIS/MXDS/Fig04_monitor_wells_umcf.mxd

Daniel B. Stephens & Associates, Inc.



N

0 450 900 Feet

Explanation

- Data point used in contouring
- Data point used in contouring (2006)
- 1734 — Tertiary Muddy Creek Formation contact elevation (ft msl)
- Top of Muddy Creek Formation contour (ft msl)
- Paleochannels (solid where deeply incised, dashed where relatively shallow and/or inferred)

Notes: 1. Wells H-39 and H-41 were recently abandoned for area construction

2. Although work is ongoing to further delineate the paleochannels, the channels depicted are based on currently available data.

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JN ES08.0154

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BMI Complex, Henderson, Nevada

FIGURE 5
TERTIARY MUDDY CREEK FORMATION STRUCTURE CONTOUR MAP

Basic Remediation Company

Prepared by: DBS&A MNW Date 10/28/08

S:/PROJECTS/BRC/ES08.0154_BRC_CAMU_GWM_WORK_PLAN/GIS/MXD/TERTIARY_MUDDY_CREEK_FORMATION.MXD

S:/PROJECTS/BRC/ES08.0154_BRC_CAMU_GWM_WORK_PLAN/GIS/MXD/TERTIARY_MUDDY_CREEK_FORMATION.MXD 808201

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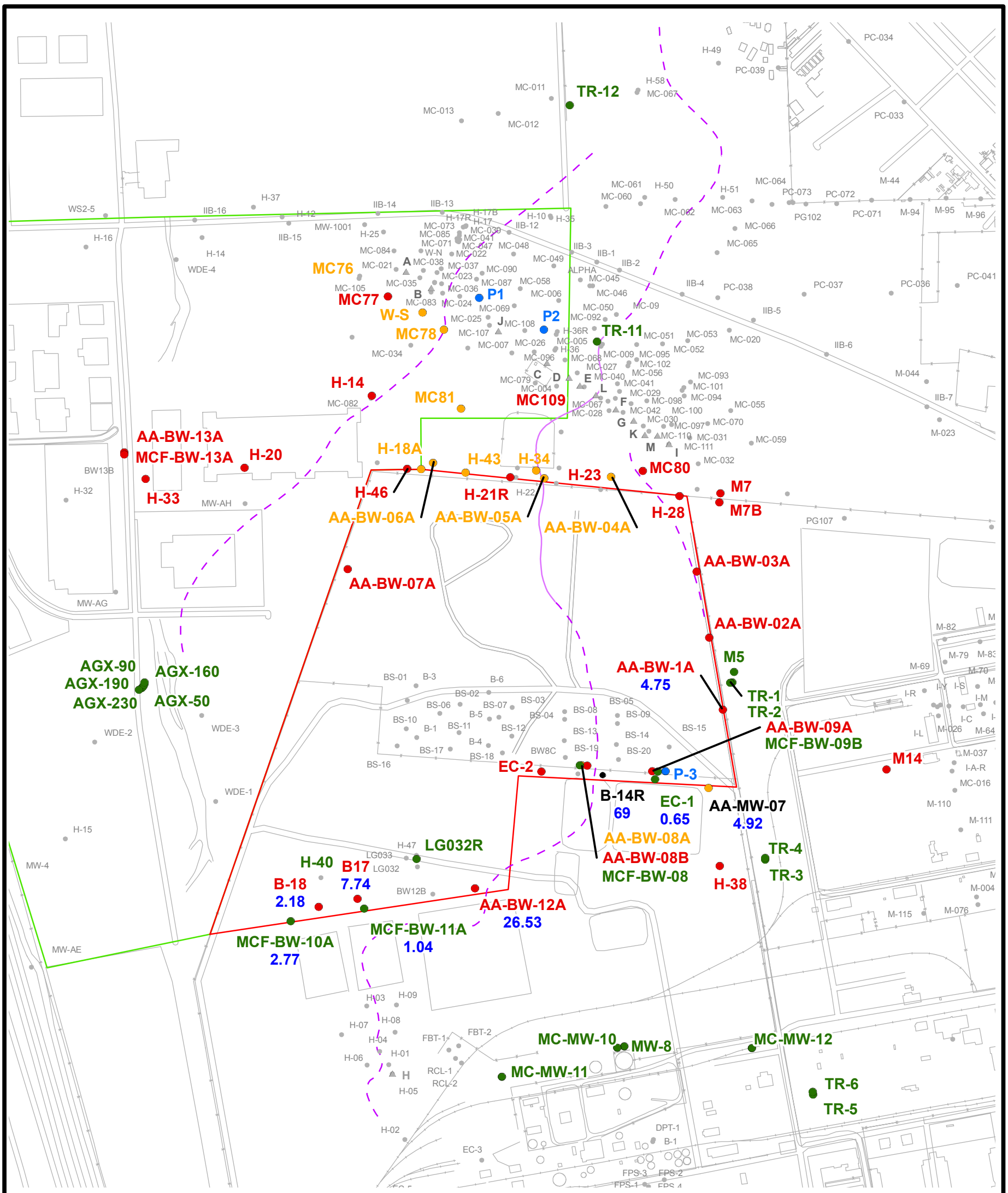

N

0 300 600 Feet

Explanation

- Extraction well (lettered series)
- No log or screen interval data available
- Screened in Qal
- Screened in Qal/UMCf (≥1 ft in UMCf)
- Screened in UMCf
- Other monitoring well or soil boring (see text for discussion)
- Proposed monitoring well in Tertiary Muddy Creek formation (Companies) P1 and P2 Middle Zone, P3 Deep Zone

Qal — Quaternary alluvium

UMCf — upper Tertiary Muddy Creek formation

- Site soil boundary
- Site AOC3 boundary
- Paleochannels (solid where deeply incised, dashed where relatively shallow and/or inferred)

2.77 — Slug test location with average horizontal hydraulic conductivity data (feet per day)(Kleinfelder, 2008)

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE 6
CANDIDATE MONITORING PROGRAM WELLS

Basic Remediation COMPANY

Prepared by: DBS&A CRS Date 12/15/08

S:/PROJECTS/BRC/ES05.0067_BRC_CAMU/GIS/MXDS/Fig06_Canidate_monitoring_wells.MXD

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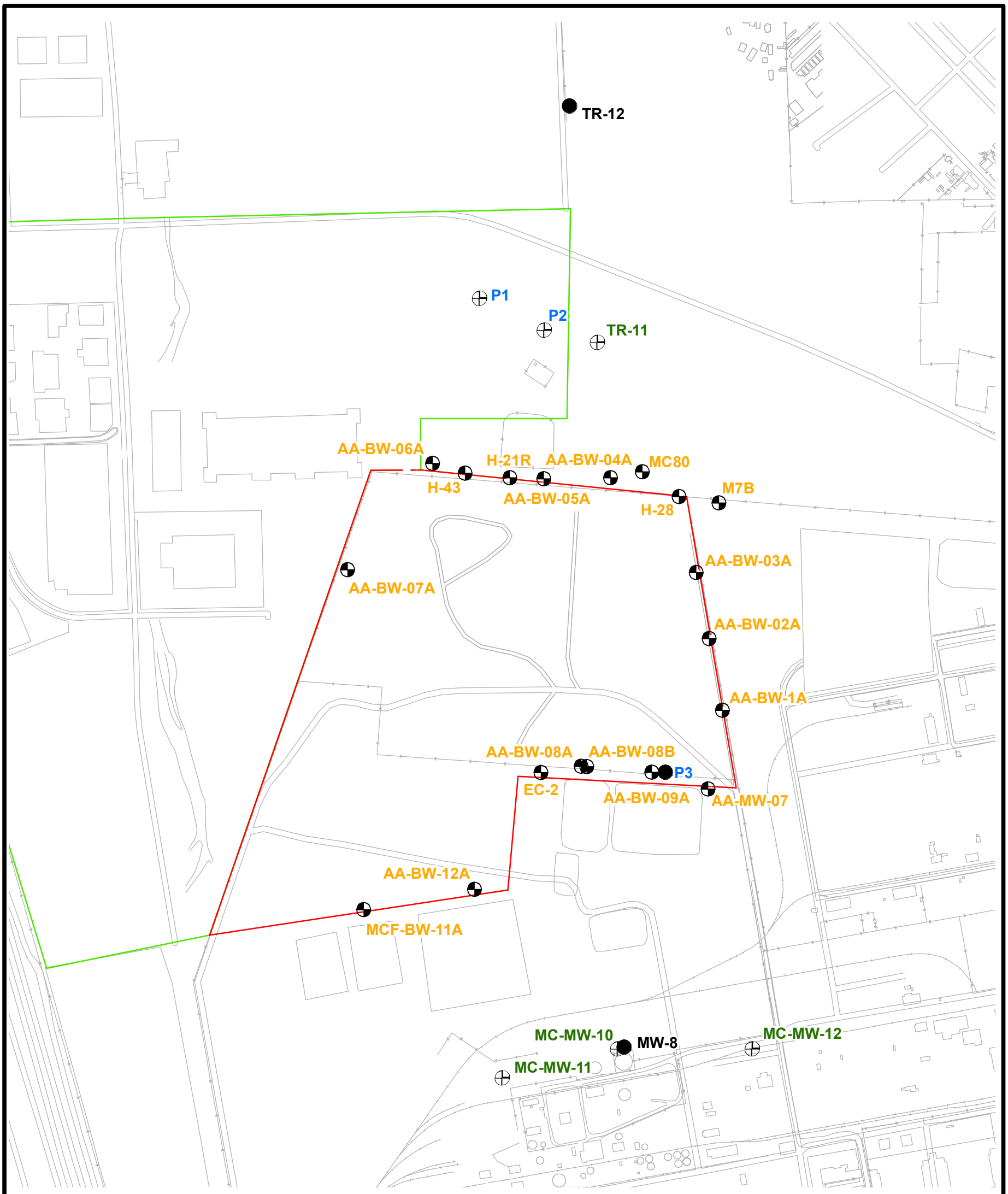
S:/PROJECTS/BRC/ES08.0154_BRC_CAMU_GWM_WORK_PLAN/GIS/MXD/FIG07_PROPOSED_MONITORING_PROGRAM.MXD 805121



N

0 300 600 Feet

Explanation

- EC-2 Shallow Zone well
- TR-11 Middle Zone well
- MW-8 Deep Zone well
- Proposed monitoring well in Tertiary Muddy Creek formation (Companies)
- Site AOC3 boundary
- Site soil boundary

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE 7
PROPOSED CAMU AREA MONITORING PROGRAM

Basic Remediation COMPANY

Prepared by: DBS&A CRS Date 12/15/08

S:/PROJECTS/BRC/ES08.0154_BRC_CAMU/GIS/MXDS/Fig07_proposed_monitoring_program.MXD

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Tables

Table 1. Inventory of Monitoring Wells and Construction Data - CAMU Area

No.	Well ID	Owner	Date Installed	TOC Elevation (ft amsl)	Grade Elevation (ft amsl)	Depth to Qal/UMCf Contact (ft bgs)	Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Screen Length (ft)	Units Screened	Hydrogeologic Zone	Total Borehole Depth (ft bgs)	Contact Elevation (ft msl)	Screen Top Elevation (ft msl)	Screen Bottom Elevation (ft msl)	Casing/Screen Type	Diameter (inches)	Screen Slot (inches)	Notes/Field Inspection	Full Log available?	Well ID
1	AA-BW-01A	BRC	3/9/05	1754.56	1752.84	46	33	53	20	Qal/TMC 7'	Shallow	60	1706.84	1719.84	1701.563	Sch 80 PVC	4	0.01	--	Yes	AA-BW-01A
2	AA-BW-02A	BRC	3/8/05	1748.80	1746.78	42	33	53	20	Qal/TMC 11'	Shallow	60	1704.78	1713.78	1695.799	Sch 80 PVC	4	0.01	--	Yes	AA-BW-02A
3	AA-BW-03A	BRC	3/2/05	1741.63	1739.48	42.5	33	53	20	Qal/TMC 10.5'	Shallow	60	1696.98	1706.48	1688.627	Sch 80 PVC	4	0.01	--	Yes	AA-BW-03A
4	AA-BW-04A	BRC	2/24/05	1731.49	1729.47	51	32	52	20	Qal/TMC 1'	Shallow	60	1678.47	1697.47	1677.47	Sch 80 PVC	4	0.01	--	Yes	AA-BW-04A
5	AA-BW-05A	BRC	2/12/05	1731.40	1729.21	64	34	64	30	Qal	Shallow	200	1665.21	1695.21	1665.21	Sch 80 PVC	4	0.01	--	Yes	AA-BW-05A
6	AA-BW-06A	BRC	3/10/05	1731.40	1729.28	42	23	43	20	Qal/TMC 1'	Shallow	50	1687.28	1706.28	1686.28	Sch 80 PVC	4	0.01	--	Yes	AA-BW-06A
7	AA-BW-07A	BRC	2/28/05	1741.73	1739.89	50	32	52	20	Qal/TMC 2'	Shallow	60	1689.89	1707.89	1687.89	Sch 80 PVC	4	0.01	--	Yes	AA-BW-07A
8	AA-BW-08A	BRC	3/15/05	1763.18	1761.28	58	37.5	57.5	20	Qal	Shallow	75	1703.28	1723.78	1703.78	Sch 80 PVC	4	0.01	--	Yes	AA-BW-08A
9	AA-BW-08B	BRC	3/17/05	1763.63	1761.47	59	43	63	20	Qal/TMC 4'	Shallow	75	1702.47	1718.47	1698.47	Sch 80 PVC	4	0.01	--	Yes	AA-BW-08B
10	AA-BW-09A	BRC	3/11/05	1763.12	1761.59	51	33	53	20	Qal/TMC 2'	Shallow	60	1710.59	1728.59	1708.59	Sch 80 PVC	4	0.01	--	Yes	AA-BW-09A
11	AA-BW-12A	BRC	2/15/05	1778.54	1776.54	60	49	69	20	Qal/TMC 9'	Shallow	200	1716.54	1727.54	1707.54	Sch 80 PVC	4	0.01	--	Yes	AA-BW-12A
12	AA-BW-13A	BRC	3/30/05	1731.67	1731.82	35	18	38	20	Qal/TMC 3'	Shallow	60	1696.82	1713.82	1693.82	Sch 80 PVC	4	0.01	--	Yes	AA-BW-13A
13	AA-MW-07	Companies	9/12/06	1764.22	1761.91	70	30.5	70.5	40	Qal	Shallow	90	1691.91	1731.41	1691.41	Sch 40 PVC	4	0.02	--	Yes	AA-MW-07
14	AGX-50	AMPAC	--	1756.26	1754.10	49	50	70	20	TMC cg	Shallow	--	1705.10	1704.10	1684.10	--	4	0.02	--	No	AGX-50
15	B-17	--	1/26/89	1773.98	--	50	49	59	10	Qal/TMC 9'	Shallow	65	--	--	--	--	--	--	Abandoned	Yes	B-17
16	B-18	--	1/25/89	1774.09	--	45	44.5	54.5	10	Qal/TMC 9.5'	Shallow	60	--	--	--	--	--	--	Abandoned	Yes	B-18
17	EC-1	Companies	2/11/98	--	--	55	50	70	20	Qal/TMC 15'	Shallow	70	--	--	--	Sch 40 PVC	4	0.02	--	Yes	EC-1
18	EC-2	Companies	2/10/98	--	--	66	50	70	20	Qal/TMC 4'	Shallow	70	--	--	--	Sch 40 PVC	4	0.02	--	Yes	EC-2
19	H-14	Companies	10/25/79	1711.94	1711.04	24	10	55	45	Qal/TMC 31'	Shallow	55	1687.04	1701.04	1656.04	open hole	10		--	No [a]	H-14
20	H-18A	Companies	11/22/04	1726.36	1724.524	49.5	20	50	30	Qal/TMC 1'	Shallow	51	1675.02	1704.52	1674.52	Sch 80 PVC	4	0.02	Consent Order	Yes	H-18A
21	H-19	Companies	2/20/80	1729.26	1728.56	42	34.8	49.8	15	Qal/TMC 7.8'	Shallow	75	1686.56	1693.76	1678.76	Steel	6	--	Not found	Yes	H-19
22	H-21R	Companies	2/21/80	1729.45	1728.35	45.5	40	50	10	Qal/TMC 9.5'	Shallow	101	1682.85	1688.35	1678.35	Steel	8/6	slotted	Consent Order	Yes	H-21
23	H-23	Companies	2/26/80	1730.6	1729.5	42.5	30.3	50.3	20	Qal/TMC 7.5'	Shallow	101	1687.00	1699.20	1679.20	Steel	6	--	Not found	No [a]	H-23
24	H-28	Companies	2/18/80	1730.33	1729.13	44.5	37.4	50.5	13.1	Qal/TMC 6.5'	Shallow	51	1684.63	1691.73	1678.63	Steel	6	--	--	Yes	H-28
25	H-34	Companies	12/18/79	1728.49	1726.99	44	41	43.5	2.5	Qal	Shallow	60	1682.99	1685.99	1683.49	lotted well poi	2	--	--	Yes	H-34
26	H-38	Companies	2/11/80	1772.69	1771.29	25	16	55	39	Qal/TMC 30'	Shallow	55	1746.29	1755.29	1716.29	open hole	8		--	No [a]	H-38
27	H-39	Companies	2/19/80	1770.32	1770.70	43	15	75	60	Qal/TMC 32'	Shallow	75	1727.70	1755.70	1695.70	open hole	8	--	Abandoned	No [a]	H-39
28	H-40	Companies	4/2/80	1770.31	1769.01	40.5	30.6	50	19.4	Qal/TMC 9.9'	Shallow	75	1728.51	1738.41	1719.01	Steel	6	slotted	Abandoned	Yes	H-40
29	H-41	Companies	4/16/80	1774.92	1773.70	54	47	57	10	Qal/TMC 3'	Shallow	75	1719.70	1726.70	1716.70	Steel	6	--	Abandoned	No [a]	H-41
30	H-43	Companies	8/17/81	1729.82	1728.20	45.5	29	44	15	Qal	Shallow	55	1682.70	1699.20	1684.20	Steel	5	--	--	Yes	H-43
31	H-46	Companies	3/29/80	1730.03	1728.83	42	36	51	15	Qal/TMC 9'	Shallow	51	1686.83	1692.83	1677.83	PVC	1.25	--	--	No [a]	H-46
32	H-52	Companies	8/14/81	1727.71	1726.30	28	18	28	10	Qal	Shallow	30	1698.30	1708.30	1698.30	--	5	--	Not found	No [b]	H-52
33	LG032R	Companies	5/6/80	1770.75	1768.85	54	80	90	10	TMC cg	Shallow	155	1714.85	1688.85	1678.85	Steel	6/4	--	Abandoned	Yes	LG032R
34	M14	Tronox	5/1/83	1759.43	1757.03	28	22	37	15	Qal/TMC 9'	Shallow	37	1729.03	1735.03	1720.03	PVC	2	0.02	--	Yes	M14
35	M5	Tronox	6/3/82	1747.83	1747.01	25.5	29	39	10	TMC cg	Shallow	43	1721.51	1718.01	1708.01	Steel	5	0.125	--	Yes	M5
36	M7A	Tronox	12/18/86	--	--	25.5	20.1	35.1	15	Qal/TMC 9.6'	Shallow	39	--	--	--	PVC	2	0.01	--	Yes	M7A

Table 1. Inventory of Monitoring Wells and Construction Data - CAMU Area

No.	Well ID	Owner	Date Installed	TOC Elevation (ft amsl)	Grade Elevation (ft amsl)	Depth to Qal/UMCf Contact (ft bgs)	Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Screen Length (ft)	Units Screened	Hydrogeologic Zone	Total Borehole Depth (ft bgs)	Contact Elevation (ft msl)	Screen Top Elevation (ft msl)	Screen Bottom Elevation (ft msl)	Casing/Screen Type	Diameter (inches)	Screen Slot (inches)	Notes/Field Inspection	Full Log available?	Well ID
37	M7B	Tronox	12/2/98	--	--	29.5	25.5	50.5	25	Qal/TMC 21'	Shallow	52.5	--	--	--	PVC	2	0.02	--	Yes	M7B
38	MC-109	Companies	1/13/05	1723.17	1720.57	41	26	46	20	Qal/TMC 5'	Shallow	50	1679.57	1694.57	1674.57	Sch 80 PVC	4	0.02	Not found	Yes	MC-109
39	MC-76	Companies	8/8/83	--	--	30.5	21.5	31.5	10	Qal/TMC 1'	Shallow	31.5	--	--	--	PVC	2	0.02	Not found	No [b]	MC-76
40	MC-77	Companies	8/8/83	1717.54	1715.98	32	30	40	10	Qal/TMC 8'	Shallow	40	1683.98	1685.98	1675.98	PVC	2	0.02	--	Yes	MC-77
41	MC-78	Companies	8/8/83	1719.12	1717.81	43	34	44	10	Qal/TMC 1'	Shallow	44	1674.81	1683.81	1673.81	PVC	2	0.02	--	Yes	MC-78
42	MC-80	Companies	8/9/83	--	--	46	38	48	10	Qal/TMC 2'	Shallow	48	--	--	--	PVC	2	0.02	--	Yes	MC-80
43	MC-81	Companies	8/9/83	1725.03	1723.52	33.5	25	35	10	Qal/TMC 1.5'	Shallow	35	1690.02	1698.52	1688.52	PVC	2	0.02	--	Yes	MC-81
44	MCF-BW-08	BRC	3/14/05	1763.39	1761.52	57	77	87	10	TMC cg	Shallow	90	1704.52	1684.518	1674.518	Sch 80 PVC	4	0.01	--	Yes	MCF-BW-08
45	MCF-BW-09B	BRC	3/12/05	1763.09	1761.63	53.5	58	78	20	TMC cg	Shallow	80	1708.13	1703.626	1683.626	Sch 80 PVC	4	0.01	--	Yes	MCF-BW-09B
46	MCF-BW-10A	BRC	3/24/05	1779.36	1777.31	39	57	72	15	TMC cg	Shallow	80	1738.31	1720.308	1705.308	Sch 80 PVC	4	0.01	--	Yes	MCF-BW-10A
47	MCF-BW-11A	BRC	3/23/05	1778.38	1776.18	52	57	72	15	TMC cg	Shallow	80	1724.18	1719.18	1704.18	Sch 80 PVC	4	0.01	--	Yes	MCF-BW-11A
48	MCF-BW-13A	BRC	3/29/05	1731.53	1731.57	35	49	69	20	Qal/TMC 14'	Shallow	86.5	1696.57	1682.573	1662.573	Sch 80 PVC	4	0.01	--	Yes	MCF-BW-13A
49	TR-6	Companies	9/24/99	--	1800	37	60	80	20	TMC cg	Shallow	80.5	1763	1740	1720	PVC	4	0.02	--	Yes	TR-6
50	W-S	--	8/11/83	1716.93	--	46	25	45	20	Qal	Shallow	58	--	--	--	Steel	8	--	--	Yes	W-S
51	H-20	Companies	1/25/80	1732.17	1731.87	41	29	101	72	Qal/TMC 60'	Shallow/Middle	101	1690.87	1702.87	1630.87	open hole	10	--	--	Yes	H-20
52	H-33	Companies	1/21/80	1733.91	1732.61	37	36	101	65	Qal(1')/TMC	Shallow/Middle	101	1695.61	1696.61	1631.61	open hole	10/8	--	--	Yes	H-33
53	AGX-160	AMPAC	--	1755.90	1754.10	49	160	180	20	TMC cg	Middle	--	1705.10	1594.10	1574.10	--	4	0.02	--	No	AGX-160
54	AGX-190	AMPAC	--	1756.69	1754.10	49	190	210	20	TMC cg	Middle	--	1705.10	1564.10	1544.10	--	4	0.02	--	No	AGX-190
55	AGX-230	AMPAC	12/24/98	1757.27	1754.30	49	230	250	20	TMC cg	Middle	255	1705.30	1524.30	1504.30	--	4	0.02	--	Yes	AGX-230
56	AGX-90	AMPAC	--	1756.32	1754.10	49	90	110	20	TMC cg	Middle	--	1705.10	1664.10	1644.10	--	4	0.02	--	No	AGX-90
57	MC-MW-10	Companies	9/21/06	1803.90	1801.21	58	85	115	20	TMC	Middle	160	1743.21	1716.21	1686.21	PVC	4	0.01	3.5' DNAPL trap	Yes	MC-MW-10
58	MC-MW-11	Companies	9/26/06	1804.50	1801.94	60	101	120.5	20	TMC	Middle	160	1741.94	1701.44	1681.44	PVC	4	0.01	3.5' DNAPL trap	Yes	MC-MW-11
59	MC-MW-12	Companies	9/28/06	1797.49	1797.38	70	100	120	20	TMC	Middle	127	1727.38	1697.38	1677.38	PVC	4	0.01	3.5' DNAPL trap	Yes	MC-MW-12
60	P1	Companies	pending	--	--	--	--	--	--	TMC	Middle	--	--	--	--	--	--	--	--	--	P1
61	P2	Companies	pending	--	--	--	--	--	--	TMC	Middle	--	--	--	--	--	--	--	--	--	P2
62	TR-11	Companies	10/11/99	--	--	50	210	230	20	TMC cg	Middle	252	--	--	--	PVC	4	0.02	--	Yes	TR-11
63	TR-2	Companies	9/8/99	--	1750	37	140	170	30	TMC cg	Middle	180	1713	1610	1580	--	--	--	--	Yes	TR-2
64	TR-3	Companies	9/12/99	--	1770	27	120	140	20	TMC cg	Middle	251.5	1743	1650	1630	--	--	--	--	Yes	TR-3
65	TR-4	Companies	9/14/99	--	1770	27	220	250	30	TMC cg	Middle	147	1743	1550	1520	--	--	--	--	Yes	TR-4
66	TR-5	Companies	9/22/99	--	1800	37	221	251	30	TMC cg	Middle	252.5	1763	1579	1549	PVC	4	0.02	--	Yes	TR-5
67	MW-8	Companies	8/27/04	1803.63	1800.95	54	275	295	20	TMC cg	Deep	302	1746.95	1525.95	1505.95	St.Steel	4	0.02	5' Sump	Yes	MW-8
68	TR-1	Companies	9/1/99	--	1750	37	280	310	30	TMC cg	Deep	312	1713	1470	1440	--	--	--	--	Yes	TR-1
69	TR-12	Companies	10/16/99	--	--	43	272	292	20	TMC cg	Deep	292.5	--	--	--	PVC	4	0.02	--	Yes	TR-12
70	P3	Companies	pending	--	--	--	--	--	--	TMC	Deep	--	--	--	--	--	--	--	--	--	P3

[a] Limited log data available only in tabular format. Full boring log or well construction diagram not available.
[b] Limited tabular log data, partial log or well construction diagram available.

ft bgs = Feet below ground surface
ft msl = Feet above mean sea level
--- = Data not applicable or not available.
CO = consent order well

Table 2. Proposed Monitoring Plan Wells - CAMU Area

No.	Well ID	Owner	Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Hydrogeologic Zone	Rationale
Wells Selected for Monitoring Program						
1	AA-BW-01A	BRC	33	53	Shallow	Monitors shallow impacts crossgradient at southeast CAMU boundary
2	AA-BW-02A	BRC	33	53	Shallow	Monitors impacts at eastern CAMU boundary; defines eastern boundary of offsite plants area plumes
3	AA-BW-03A	BRC	33	53	Shallow	Monitors impacts at eastern CAMU boundary; defines eastern boundary of offsite plants area plumes
4	AA-BW-04A	BRC	32	52	Shallow	Monitors impacts downgradient of northern CAMU boundary and central axes of upgradient plants area plumes
5	AA-BW-05A	BRC	34	64	Shallow	Monitors impacts downgradient of northern CAMU boundary and upgradient plants area plumes
6	AA-BW-06A	BRC	23	43	Shallow	Monitors impacts downgradient of northwestern CAMU boundary
7	AA-BW-07A	BRC	32	52	Shallow	Monitors impacts at western CAMU boundary
8	AA-BW-08A	BRC	37.5	57.5	Shallow	Monitors impacts upgradient at southeast CAMU boundary. DNAPL not detected October 2007
9	AA-BW-08B	BRC	43	63	Shallow	Monitors impacts upgradient at southeast CAMU boundary. Benzene/chlorobenzene DNAPL detected October 2007
10	AA-BW-09A	BRC	33	53	Shallow	Monitors impacts upgradient at southeast CAMU boundary
11	AA-BW-12A	BRC	49	69	Shallow	Monitors impacts upgradient of southwest CAMU boundary
12	AA-MW-07	Companies	30.5	70.5	Shallow	Monitors impacts upgradient at southeast CAMU boundary
13	EC-2	Companies	50	70	Shallow	Monitors impacts upgradient at center of southern CAMU boundary
14	H-21R	Companies	40	50	Shallow	Monitors impacts downgradient of northern CAMU boundary and upgradient plants area plumes
15	H-28	Companies	37.4	50.5	Shallow	Monitors impacts at northeastern CAMU boundary; defines northeastern boundary of offsite plants area plumes
16	H-43	Companies	29	44	Shallow	Monitors impacts downgradient of northern CAMU boundary and upgradient plants area plumes
17	M7B	Tronox	25.5	50.5	Shallow	Monitors impacts at northeastern CAMU boundary; defines northeastern boundary of offsite plants area plumes
18	MC80	Companies	38	48	Shallow	Monitors impacts downgradient of northeastern CAMU boundary and central axes of upgradient plants area plumes
19	MCF-BW-08	BRC	77	87	Shallow	Monitors UMCf water levels and impacts upgradient at southeast CAMU boundary. Not sampled October 2007
20	MCF-BW-11A	BRC	57	72	Shallow	Monitors UMCf water levels, vertical gradients, and deeper impacts upgradient of southwest CAMU boundary
21	MC-MW-10	Companies	85	115	Middle	Monitors upgradient impacts in plants area
22	MC-MW-11	Companies	100.5	120.5	Middle	Monitors upgradient impacts in plants area
23	MC-MW-12	Companies	100	120	Middle	Monitors upgradient impacts in plants area
24	P1	Companies	--	--	Middle	Proposed well that will monitor downgradient impacts
25	P2	Companies	--	--	Middle	Proposed well that will monitor downgradient impacts
26	TR-11	Companies	210	230	Middle	Monitoring multiple impacts to north of CAMU (downgradient of extraction wells)
27	MW-8	Companies	275	295	Deep	Monitors upgradient impacts in plants area
28	P3	Companies	--	--	Deep	Proposed well that will monitor upgradient impacts
29	TR-12	Companies	272	292	Deep	Monitoring multiple impacts to north of CAMU (downgradient of extraction wells)
Wells Not Selected for Monitoring Program						
1	AA-BW-13A	BRC	18	38	Shallow	Well located to west of CAMU outside of primary groundwater impact area (cross-gradient)
2	AGX-50	AMPAC	50	70	Shallow	Wells located west of CAMU area impacts (cross-gradient)
3	B-17	--	49	59	Shallow	Abandoned well
4	B-18	--	44.5	54.5	Shallow	Abandoned well
5	EC-1	Companies	50	70	Shallow	Adjacent wells provide adequate coverage in same area
6	H-14	Companies	10	55	Shallow	Adjacent wells provide adequate coverage in same area
7	H-18A	Companies	20	50	Shallow	Adjacent wells provide adequate coverage in same area
8	H-19	Companies	34.8	49.8	Shallow	Well not found in field - likely not functonal. Over 25 years old
9	H-23	Companies	30.3	50.3	Shallow	Well not found in field - likely not functonal. Over 25 years old
10	H-34	Companies	41	43.5	Shallow	Adjacent wells provide adequate coverage in same area. Over 25 years old

ft bgs = Feet below ground surface
--- = Data not applicable or not available

Table 2. Proposed Monitoring Plan Wells - CAMU Area

No.	Well ID	Owner	Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	Hydrogeologic Zone	Rationale
11	H-38	Companies	16	55	Shallow	Adjacent wells provide adequate coverage in same area
12	H-39	Companies	15	75	Shallow	Abandoned well
13	H-40	Companies	30.6	50	Shallow	Abandoned well
14	H-41	Companies	47	57	Shallow	Abandoned well
15	H-46	Companies	36	51	Shallow	Adjacent wells provide adequate coverage in same area. Over 25 years old
16	H-52	Companies	18	28	Shallow	Well not found in field - likely not functonal. Over 25 years old
17	LG032R	Companies	80	90	Shallow	Abandoned well
18	M5	Tronox	29	39	Shallow	Adjacent wells provide adequate coverage in same area
19	M14	Tronox	22	37	Shallow	Wells located east of CAMU area impacts (cross-gradient)
20	M7	Tronox	20.1	35.1	Shallow	Adjacent wells provide adequate coverage in same area
21	MC-109	Companies	26	46	Shallow	Well not found in field - likely not functonal
21	MC-76	Companies	21.5	31.5	Shallow	Well not found in field - likely not functonal. Over 25 years old
23	MC-77	Companies	30	40	Shallow	Adjacent wells provide adequate coverage in same area
24	MC-78	Companies	34	44	Shallow	Adjacent wells provide adequate coverage in same area
25	MC81	Companies	25	35	Shallow	Adjacent wells provide adequate coverage in same area
26	MCF-BW-09B	BRC	58	78	Shallow	Adjacent wells provide adequate coverage in same area
27	MCF-BW-10A	BRC	57	72	Shallow	Adjacent wells provide adequate coverage in same area
28	MCF-BW-13A	BRC	49	69	Shallow	Well located to west of CAMU outside of primary groundwater impact area
29	TR-6	Companies	60	80	Shallow	Adjacent wells provide adequate coverage in same area
30	W-S	--	25	45	Shallow	Adjacent wells provide adequate coverage in same area
31	H-20	Companies	29	101	Shallow/Middle	Adjacent wells provide adequate coverage in same area. Over 25 years old
32	H-33	Companies	36	101	Shallow/Middle	Adjacent wells provide adequate coverage in same area. Over 25 years old
33	AGX-160	AMPAC	160	180	Middle	Wells located west of CAMU area impacts (cross-gradient)
34	AGX-190	AMPAC	190	210	Middle	Wells located west of CAMU area impacts (cross-gradient)
35	AGX-230	AMPAC	230	250	Middle	Wells located west of CAMU area impacts (cross-gradient)
36	AGX-90	AMPAC	90	110	Middle	Wells located west of CAMU area impacts (cross-gradient)
37	TR-2	Companies	140	170	Middle	Adjacent wells provide adequate coverage in same area
38	TR-3	Companies	120	140	Middle	Adjacent wells provide adequate coverage in same area
39	TR-4	Companies	220	250	Middle	Adjacent wells provide adequate coverage in same area
40	TR-5	Companies	221	251	Middle	Adjacent wells provide adequate coverage in same area
41	TR-1	Companies	280	310	Deep	Adjacent wells provide adequate coverage in same area

--- - Data not applicable or not available.

ft bgs = Feet below ground surface
--- = Data not applicable or not available

Table 3. Summary of Proposed Analytical Program - CAMU Area

No.	Well	Sampled by Upgradient Companies?	Owner	Frequency	Field Sampling				Ions	Analytical Suite									
					Water Level Measurement	NAPL Measurement	Dissolved Oxygen (field) per SOP5 [a]	Water Quality Sampling		VOC	SVOC	Organochlorine Pesticides	Metals	TDS	Radium 226	Radium 228	Radon 222	Dioxins/ Furans [b]	PCBs (w/ Congeners) [b]
1	AA-BW-01A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	---	---
2	AA-BW-02A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	---	---
3	AA-BW-03A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	---	---
4	AA-BW-04A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
5	AA-BW-05A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6	AA-BW-06A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
7	AA-BW-07A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	---	---
8	AA-BW-08A	YES	BRC	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	A	A
9	AA-BW-08B	No	BRC	Quarterly	B	B	B	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]
10	AA-BW-09A	No	BRC	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
11	AA-BW-12A	YES	BRC	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
12	AA-MW-07	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	A	A
13	EC-2	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	A	A
14	H-21R	No	Tronox	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
15	H-28	No	Companies	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
16	H-43	No	Companies	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
17	M7B	No	Tronox	Quarterly	B	B	B	B	C	C	C	C	C	C	C	C	C	B	B
18	MC-80	No	Companies	Quarterly	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
19	MCF-BW-11A	YES	BRC	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
20	MC-MW-10	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
21	MC-MW-11	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
22	MC-MW-12	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
23	P1 (proposed)	YES (pending install)	Companies	Pending	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
24	P2 (proposed)	YES (pending install)	Companies	Pending	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
25	P3 (proposed)	YES (pending install)	Companies	Pending	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
26	TR-11	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
27	MW-8	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
28	TR-12	YES	Companies	Quarterly	C	C	C	C	C	C	C	C	C	C	C	C	C	---	---
29	MCF-BW-08	No	BRC	Quarterly	B	B	B	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]	--- [c]

[a] White phosphorous and methyl mercury will be included in the analyte list if field-measured DO concentrations show anerobic conditions (approximately < 1 mg/L DO).

[b] PCBs and dioxins/furans proposed to evaluate potential impacts from the former slit trench area.

[c] Well proposed for water level and NAPL monitoring only.

A = Sample collected by the Companies but analyzed for additional parameters by BRC.

B = Well sampled by BRC for indicated parameter.

C = Well sampled by the Companies for indicated parameter.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Ions	EPA 300.0	Bromide	24959-67-9	AA-BW-08A	AA-BW-01A through -07A
		Bromine	7726-95-6	AA-BW-12A	AA-BW-08B
		Chlorate	14866-68-3	AA-MW-07	AA-BW-09A
		Chloride	16887-00-6	EC-2	H-21R
		Chlorine (soluble)	7782-50-5	MCF-BW-11A	H-28
		Chlorite	14998-27-7	MC-MW-10	H-43
		Fluoride	16984-48-8	MC-MW-11	M7B
		Nitrate (as N)	14797-55-8	MC-MW-12	MC-80
		Nitrite (as N)	14797-65-0	TR-11	
		Orthophosphate	14265-44-2	MW-8	
		Sulfate	14808-79-8	TR-12	
	EPA 377.1	Sulfite	14265-45-3		
	EPA 314.0	Perchlorate	14797-73-0		
Polychlorinated Dibenzodioxins/ Dibenzofurans	EPA 8290	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0		AA-BW-04A
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9		AA-BW-5A
		1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4		AA-BW-06A
		1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9		AA-BW-08A
		1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7		AA-BW-09A
		1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9		AA-MW-07
		1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6		EC-2
		1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9		H-21R
		1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7		H-28
		1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9		H-43
		1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3		M7B
		1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6		MC-80
		1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4		
		2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5		
		2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4		
		2,3,7,8-Tetrachlorodibenzofuran	51207-31-9		
		2,3,7,8-Tetrachlororodibenzo-p-dioxin	1746-01-6		
Metals	EPA 6020/6010B	Aluminum	7429-90-5	AA-BW-08A	AA-BW-01A through -07A
		Antimony	7440-36-0	AA-BW-12A	AA-BW-08B
		Arsenic	7440-38-2	AA-MW-07	AA-BW-09A
		Barium	7440-39-3	EC-2	H-21R
		Beryllium	7440-41-7	MCF-BW-11A	H-28
		Boron	7440-42-8	MC-MW-10	H-43
		Cadmium	7440-43-9	MC-MW-11	MC-80
		Calcium	7440-70-2	MC-MW-12	

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Metals (continued)	EPA 6020/6010B	Chromium	7440-47-3	TR-11	
		Cobalt	7440-48-4	MW-8	
		Copper	7440-50-8	TR-12	
		Iron	7439-89-6		
		Lead	7439-92-1		
		Lithium	1313-13-9		
		Magnesium	7439-95-4		
		Manganese	7439-96-5		
		Molybdenum	7439-98-7		
		Nickel	7440-02-0		
		Niobium	7440-03-1		
		Palladium	7440-05-3		
		Phosphorus	7723-14-0		
		Platinum	7440-06-4		
		Potassium	7440-09-7		
		Selenium	7782-49-2		
		Silicon	7440-21-3		
		Silver	7440-22-4		
		Sodium	7440-23-5		
		Strontium	7440-24-6		
		Sulfur	7704-34-9		
		Thallium	7440-28-0		
		Tin	7440-31-5		
		Titanium	7440-32-6		
		Tungsten	7440-33-7		
		Uranium	7440-61-1		
		Vanadium	7440-62-2		
		Zinc	7440-66-6		
		Zirconium	7440-67-7		
	EPA 7196A	Chromium (VI)	18540-29-9		
	EPA 7470/7471A	Mercury	7439-97-6		
Organochlorine Pesticides	EPA 8081A	2,4-DDD	53-19-0	AA-BW-08A	AA-BW-01A through -07A
		2,4-DDE	3424-82-6	AA-BW-12A	AA-BW-08B
		4,4-DDD	72-54-8	AA-MW-07	AA-BW-09A
		4,4-DDE	72-55-9	EC-2	H-21R
		4,4-DDT	50-29-3	MCF-BW-11A	H-28
		Aldrin	309-00-2	MC-MW-10	H-43
		alpha-BHC	319-84-6	MC-MW-11	MC-80

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Organochlorine Pesticides (continued)	EPA 8081A	alpha-Chlordane	5103-71-9	MC-MW-12	
		beta-BHC	319-85-7	TR-11	
		Chlordane	57-74-9	MW-8	
		delta-BHC	319-86-8	TR-12	
		Dieldrin	60-57-1		
		Endosulfan I	959-98-8		
		Endosulfan II	33213-65-9		
		Endosulfan sulfate	1031-07-8		
		Endrin	72-20-8		
		Endrin aldehyde	7421-93-4		
		Endrin ketone	53494-70-5		
		gamma-BHC (Lindane)	58-89-9		
		gamma-Chlordane	5103-74-2		
		Heptachlor	76-44-8		
		Heptachlor epoxide	1024-57-3		
		Methoxychlor	72-43-5		
		Toxaphene	8001-35-2		
Polychlorinated Biphenyls with congener analysis	EPA 8082	Aroclor 1016	12674-11-2		AA-BW-04A
		Aroclor 1221	11104-28-2		AA-BW-5A
		Aroclor 1232	11141-16-5		AA-BW-06A
		Aroclor 1242	53469-21-9		AA-BW-08A
		Aroclor 1248	12672-29-6		AA-BW-09A
		Aroclor 1254	11097-69-1		AA-MW-07
		Aroclor 1260	11096-82-5		EC-2
		PCB-77	32598-13-3		H-21R
		PCB-81	70362-50-4		H-28
		PCB-105	32598-14-4		H-43
		PCB-114	74472-37-0		M7B
		PCB-118	31508-00-6		MC-80
		PCB-123	65510-44-3		
		PCB-126	57465-28-8		
		PCB-156	38380-08-4		
		PCB-157	69782-90-7		
		PCB-167	52663-72-6		
		PCB-169	32774-16-6		
		PCB-189	39635-31-9		

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Radiochemicals	EPA 903.0	Radium-226	13982-63-3	AA-BW-08A	AA-BW-01A through -07A
	EPA 904.0	Radium-228	15262-20-1	AA-BW-12A	AA-BW-08B
				AA-MW-07	AA-BW-09A
				EC-2	H-21R
				MCF-BW-11A	H-28
				MC-MW-10	H-43
				MC-MW-11	MC-80
				MC-MW-12	
				TR-11	
				MW-8	
				TR-12	
Semivolatile Organic Compounds	EPA 8270C	1,2,4,5-Tetrachlorobenzene	95-94-3	AA-BW-08A	AA-BW-01A through -07A
		1,2-Diphenylhydrazine	122-66-7	AA-BW-12A	AA-BW-08B
		1,4-Dioxane	123-91-1	AA-MW-07	AA-BW-09A
		2,2'/4,4'-Dichlorobenzil	3457-46-3	EC-2	H-21R
		2,4,5-Trichlorophenol	95-95-4	MCF-BW-11A	H-28
		2,4,6-Trichlorophenol	88-06-2	MC-MW-10	H-43
		2,4-Dichlorophenol	120-83-2	MC-MW-11	MC-80
		2,4-Dimethylphenol	105-67-9	MC-MW-12	
		2,4-Dinitrophenol	51-28-5	TR-11	
		2,4-Dinitrotoluene	121-14-2	MW-8	
		2,6-Dinitrotoluene	606-20-2	TR-12	
		2-Chloronaphthalene	91-58-7		
		2-Chlorophenol	95-57-8		
		2-Methylnaphthalene	91-57-6		
		2-Nitroaniline	88-74-4		
		2-Nitrophenol	88-75-5		
		3,3-Dichlorobenzidine	91-94-1		
		3-Nitroaniline	99-09-2		
		4,4'-Dichlorobenzil	3457-46-3		
		4-Bromophenyl phenyl ether	101-55-3		
		4-Chloro-3-methylphenol	59-50-7		
		4-Chlorophenyl phenyl ether	7005-72-3		
		4-Chlorothioanisole	123-09-1		
		4-Chlorothiophenol	106-54-7		
		4-Nitroaniline	100-01-6		
		4-Nitrophenol	100-02-7		
		Acenaphthene	83-32-9		

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Semivolatile Organic Compounds (continued)	EPA 8270C	Acenaphthylene	208-96-8		
		Acetophenone	98-86-2		
		Aniline	62-53-3		
		Anthracene	120-12-7		
		Azobenzene	103-33-3		
		Benzo(a)anthracene	56-55-3		
		Benzo(a)pyrene	50-32-8		
		Benzo(b)fluoranthene	205-99-2		
		Benzo(g,h,i)perylene	191-24-2		
		Benzo(k)fluoranthene	207-08-9		
		Benzoic acid	65-85-0		
		Benzyl alcohol	100-51-6		
		Benzyl butyl phthalate	111-91-1		
		bis(2-Chloroethoxy)methane	54-28-1		
		bis(2-Chloroethyl) ether	108-60-1		
		bis(2-Chloroisopropyl) ether	117-81-7		
		bis(2-Ethylhexyl) phthalate	111-44-4		
		bis(Chloromethyl) ether	80-07-9		
		bis(p-Chlorophenyl) sulfone	1142-19-4		
		bis(p-Chlorophenyl)disulfide	85-68-7		
		Carbazole	86-74-8		
		Chrysene	218-01-9		
		Dibenzo(a,h)anthracene	53-70-3		
		Dibenzofuran	132-64-9		
		Dichloromethyl ether	542-88-1		
		Diethyl phthalate	84-66-2		
		Dimethyl phthalate	131-11-3		
		Di-n-butyl phthalate	84-74-2		
		Di-n-octyl phthalate	117-84-0		
		Diphenyl disulfide	882-33-7		
		Diphenyl sulfide	139-66-2		
		Diphenyl sulfone	127-63-9		
		Fluoranthene	206-44-0		
		Fluorene	86-73-7		
		Hexachlorobenzene	118-74-1		
		Hexachlorobutadiene	87-68-3		
		Hexachlorocyclopentadiene	77-47-4		
		Hexachloroethane	67-72-1		

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Semivolatile Organic Compounds (continued)	EPA 8270C	Hydroxymethyl phthalimide	118-29-6		
		Indeno(1,2,3-cd)pyrene	193-39-5		
		Isophorone	78-59-1		
		m,p-Cresol	106-44-5		
		Naphthalene	91-20-3		
		Nitrobenzene	98-95-3		
		N-nitrosodi-n-propylamine	621-64-7		
		N-nitrosodiphenylamine	86-30-6		
		o-Cresol	95-48-7		
		Octachlorostyrene	29082-74-4		
		p-Chloroaniline (4-Chloroaniline)	106-47-8		
		p-Chlorobenzenethiol	106-54-7		
		Pentachlorobenzene	608-93-5		
		Pentachlorophenol	87-86-5		
		Phenanthrene	85-01-8		
		Phenol	108-95-2		
		Pyrene	129-00-0		
		Pyridine	110-86-1		
		Thiophenol	108-98-5		
		Tentatively Identified Compounds (TICs)			
Volatile Organic Compounds	EPA 8260B	1,1,1,2-Tetrachloroethane	630-20-6	AA-BW-08A	AA-BW-01A through -07A
		1,1,1-Trichloroethane	71-55-6	AA-BW-12A	AA-BW-08B
		1,1,2,2-Tetrachloroethane	79-34-5	AA-MW-07	AA-BW-09A
		1,1,2-Trichloroethane	79-00-5	EC-2	H-21R
		1,1-Dichloroethane	75-34-3	MCF-BW-11A	H-28
		1,1-Dichloroethene	75-35-4	MC-MW-10	H-43
		1,1-Dichloropropene	563-58-6	MC-MW-11	MC-80
		1,2,3-Trichlorobenzene	87-61-6	MC-MW-12	
		1,2,3-Trichloropropane	96-18-4	TR-11	
		1,2,4-Trichlorobenzene	120-82-1	MW-8	
		1,2,4-Trimethylbenzene	95-63-6	TR-12	
		1,2-Dichlorobenzene	95-50-1		
		1,2-Dichloroethane	107-06-2		
		1,2-Dichloroethene	540-59-0		
		1,2-Dichloropropane	78-87-5		
		1,3,5-Trichlorobenzene	108-70-3		
		1,3,5-Trimethylbenzene	108-67-8		
		1,3-Dichlorobenzene	541-73-1		

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Volatile Organic Compounds (continued)	EPA 8260B	1,3-Dichloropropene	542-75-6		
		1,3-Dichloropropane	142-28-9		
		1,4-Dichlorobenzene	106-46-7		
		2,2-Dichloropropane	594-20-7		
		2-Chlorotoluene	95-49-8		
		2-Hexanone	591-78-6		
		2-Nitropropane	79-46-9		
		4-Chlorobenzene	108-90-7		
		4-Chlorotoluene	106-43-4		
		4-Methyl-2-pentanone (MIBK)	108-10-1		
		Acetone	67-64-1		
		Acetonitrile	75-05-8		
		Benzene	71-43-2		
		Bromobenzene	108-86-1		
		Bromodichloromethane	75-27-4		
		Bromoform	75-25-2		
		Bromomethane	74-83-9		
		Carbon disulfide	75-15-0		
		Carbon tetrachloride	56-23-5		
		Chlorobenzene	108-90-7		
		Chlorobromomethane	74-97-5		
		Chlorodibromomethane	124-48-1		
		Chloroethane	75-00-3		
		Chloroform	67-66-3		
		Chloromethane	74-87-3		
		cis-1,2-Dichloroethene	156-59-2		
		cis-1,3-Dichloropropene	10061-01-5		
		Cymene (Isopropyltoluene)	99-87-6		
		Dibromochloroethane	73506-94-2		
		Dibromochloromethane	124-48-1		
		Dibromochloropropane	96-12-8		
		Dibromomethane	74-95-3		
		Dichloromethane (Methylene chloride)	75-09-2		
		Dimethyldisulfide	624-92-0		
		Ethanol	64-17-5		
		Ethylbenzene	100-41-4		
		Freon-11(Trichlorofluoromethane)	75-69-4		
		Freon-113(1,1,2-Trifluoro-1,2,2-trichloroethane)	76-13-1		

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Table 4. CAMU Area Groundwater Monitoring Plan Analyte List

Parameter of Interest	AnalyticalMethod	Compound List	CAS Number	Analyzed in	
				Wells Sampled by Upgradient Companies	Wells Sampled by BRC
Volatile Organic Compounds (continued)	EPA 8260B	Freon-12(Dichlorodifluoromethane)	75-71-8		
		Heptane	142-82-5		
		Isoheptane	31394-54-4		
		Isopropylbenzene	98-82-8		
		m,p-Xylene	mp-XYL		
		Methyl ethyl ketone (2-Butanone)	78-93-3		
		Methyl iodide	74-88-4		
		MTBE (Methyl tert-butyl ether)	1634-04-4		
		n-Butyl benzene	104-51-8		
		n-Propylbenzene	103-65-1		
		Nonanal	124-19-6		
		o-Xylene	95-47-6		
		sec-Butylbenzene	135-98-8		
		Styrene	100-42-5		
		tert-Butyl benzene	98-06-6		
		Tetrachloroethene	127-18-4		
		Toluene	108-88-3		
		trans-1,2-Dichloroethene	156-60-5		
		trans-1,3-Dichloropropene	10061-02-6		
		Trichloroethene	79-01-6		
		Vinyl acetate	108-05-4		
		Vinyl chloride	75-01-4		
		Xylenes (total)	1330-20-7		
		Tentatively Identified Compounds (TICs)			
Water Quality Parameter	EPA 160.1	Total dissolved solids	TDS	AA-BW-08A	AA-BW-01A through -07A
Radon	EPA 7500	Radon 222	14859-67-7	AA-BW-12A	AA-BW-08B
White Phosphorus	EPA 7580M	White phosphorus	12185-10-3	AA-MW-07	AA-BW-09A
Methyl Mercury	EPA 1630	Methyl mercury	22967-92-6	EC-2	H-21R
				MCF-BW-11A	H-28
				MC-MW-10	H-43
				MC-MW-11	MC-80
				MC-MW-12	
				TR-11	
				MW-8	
				TR-12	

NA = Not available.

Note: Analytical program for proposed wells P1, P2, and P3 to be developed by the Companies after well installation is complete.

Appendix A

Responses to NDEP Comments

Appendix A
Responses to Nevada Division of Environmental Protection Comments dated November 13, 2008, regarding Groundwater Monitoring Plan (October 28, 2008)
Corrective Action Management Unit (CAMU) Area
NDEP Facility ID# H-000688

1. Section 1.1, pg 2. The NDEP does not agree with the new acronym (UUWBZ) created herein to classify water-bearing zones. NDEP will be promulgating guidance regarding nomenclature shortly.

Response: The term "upper unconfined water-bearing zone (UUWBZ)" has been replaced with the NDEP-approved term "Shallow Zone" in the revised document.

2. Section 1.2, pg 4, 2nd paragraph. Given the contour map presented in Figure D-7 (Appendix C), it is noted that one could just as likely conclude that the PCE in AA-BW-04A might be from the BMI Landfills.

Response: The plan text has been revised to address this comment. BRC will utilize additional monitoring data from upcoming sampling events to further characterize groundwater impacts upgradient and downgradient of the CAMU area.

3. Section 1.2, pg 2, 3rd paragraph, please note that the references to "Pioneer" should be changed to "Olin".

Response: References to "Pioneer" have been changed to "Olin" in the revised document.

4. Section 1.2, pg 3, 1st paragraph after bullets, it should also be noted that the facilities upgradient have documented PCB, dioxin/furan, organic acid, total dissolved solids, etc. impacts.

Response: This information has been added to the revised document.

5. Section 1.2, pg 4, 2nd paragraph, BRC states "BRC plans to excavate the STA in the near future." This statement needs to be put into context. Specifically, BRC needs to discuss what effect this is expected to have on groundwater quality.

Response: The document has been revised to include the following statement concerning the STA: *"Excavation of the STA will remove a potential source of groundwater impacts in the CAMU area."*

6. Section 1.3.1, pg 5, 1st full paragraph, BRC's reference to groundwater elevations being "reportedly" encountered in the UMCf lacks a reference.

Response: Comment noted. The last three sentences in this paragraph have been removed from the document for clarity. Going forward, the reported groundwater elevations in the Plants Area will be used to characterize groundwater in that area.

7. Section 1.3.1, pg 6, 2nd paragraph, BRC should also discuss the presence of the "deep water-bearing zone" in the TRONOX "TR" series wells and Montrose well MW-8.

Response: The document has been revised to address this issue.

8. Section 1.3.1, pg 6, last paragraph, NDEP notes that BRC's statement is not supported by the data and this is why deeper monitoring wells need to be installed throughout the CAMU Area. Specifically, NDEP expects BRC to submit a work plan to install wells in the intermediate and deep zones. It is expected that this work will be an Attachment to the revised plan.

Response: As described in the revised plan, upgradient Deep Zone well MW-8, proposed upgradient Deep Zone well P3, and downgradient Deep Zone well TR-12 have been added to the plan to evaluate Deep Zone impacts in the CAMU area. Also, the plan text has been revised to address this comment.

9. Section 1.3.3, pg 8, 1st paragraph of the section. BRC states "Although preferred groundwater flow and SRC transport may be inferred by the higher Kh data, the Aa groundwater flow map for the area (Figure 3) does not indicate that higher-Kh paleochannels affect groundwater flow near the CAMU." It is noted that there are an insufficient number of groundwater elevation control points to support this statement.

Response: Comment noted

10. Section 1.3.3, pg 8, 1st paragraph, last sentence of the section. It appears that this paragraph should refer to Appendix C herein.

Response: Correct - A reference to Appendix C has been added to this section in the revised document.

11. Section 1.3.3, pg 8, last paragraph, please identify the wells that are screened across more than one water-bearing zone. These wells should be appropriately plugged and abandoned and replaced, as necessary. This is an unacceptable situation in terms of contaminant fate and transport.

Response: None of the plan wells are considered to be cross-screened. Older well H-20 was constructed as an open-hole well in 1980, with the open interval extending from 29 to 101 feet below grade. Older well H-33 was also constructed in 1980 as an open-hole well, extending from 36 to 101 feet. These wells, located to the west of the northwestern CAMU area, are candidates for well abandonment, but are not included in the monitoring plan. The last sentence in Section 1.3.3 has been removed for clarity.

12. Section 2.2, pp 9 and 10. The NDEP has the following comments:

a. Pg 9, 1st paragraph, there is no data to support BRC's statements regarding impacts to deeper water-bearing zones. See comment above requiring additional monitoring wells.

Response: Please see response to Comment 8. Deep Zone wells have been included in the revised plan, and the plan text has been revised to address this comment.

b. Pg 10, 2nd paragraph, regarding BRC's statement on upgradient wells, NDEP does not agree with BRC's rationale. Upgradient data is very important data for establishing a relationship between the CAMU area and impacts to groundwater.

Response: The document has been revised to remove the reference to upgradient data and state that additional upgradient Shallow Zone wells are not proposed by BRC because coverage with existing Shallow Zone wells is considered adequate.

c. Pg 10, 4th paragraph, BRC's statement regarding the extraction wells does not make sense in that the pumping wells are not typically sampled. Please explain how BRC's statement is germane to the plan.

Response: The text has been revised as follows: "To the north, the existing pumping wells (Olin/Montrose) are located between about 300 and 500 feet north of the CAMU boundary. Shallow Zone monitoring wells north of the active pumping wells are not proposed for sampling."

d. There are no wells located along the southwest and western sides of the CAMU. Further, the NDEP does not agree with the rationale for not monitoring along the western side as presented in the last paragraph on page 10. Additional data and justification needs to be provided.

Response: Shallow Zone well AA-BW-07A, located along the western boundary of the CAMU area, has been restored to the list of plan wells; it had been inadvertently excluded. Shallow Zone well MCF-BW-11A, located along the southwestern border of the CAMU area, is also included in the revised plan.

13. Section 2.3, pg 11, 2nd paragraph, 1st sentence. The NDEP would recommend quarterly monitoring for the longer of the two proposed periods.

Response: The text has been revised to state that baseline quarterly monitoring is proposed for four quarters. The frequency of monitoring thereafter will be addressed after discussions with the NDEP.

a. General comment, BRC does not propose a start date for the sampling, hence NDEP has specified this in the cover letter.

Response: Comment noted. As requested sampling is proposed to resume with the next regularly scheduled quarterly sampling event (i.e., January 2009).

b. 2nd paragraph, 2nd sentence. Please note that the NDEP must approve any changes in groundwater sampling frequency.

Response: The text has been revised as follows: *"**With NDEP approval**, the quarterly sampling frequency will be reduced as appropriate to semiannual or annual sampling as the CAMU groundwater dataset grows in size…"*

c. 2nd paragraph, 2nd bullet. It is noted that this is perhaps the strongest argument for reducing the frequency; but, it does not address potential impacts from the BMI Landfills or the Slit Trench Area. This plan is meant to address the CAMU area not just the CAMU, hence this is a flawed argument.

Response: The text has been revised to include "area" as follows: *"Upgradient contamination, which likely masks CAMU **area** leakage, will persist for the foreseeable future, so additional data from more frequent monitoring events would be anticipated to provide only generally redundant data regarding CAMU **area** contributions to groundwater impacts."*

14. Section 2.3, pg 11, 3rd paragraph. BRC will need to assure the NDEP that the analyte list for these wells will be the same as for the CAMU area wells.

Response: Before available monitoring data from adjacent sites are used, BRC will review the data to ensure that the analyte list is the same as for the CAMU area wells. BRC will sample the plan wells for missing analytes, if any. The plan text has been revised to address this comment.

15. Section 2.4, pg 12. The NDEP has the following comments:

a. As noted above, the NDEP must approve any changes to groundwater monitoring plan.

Response: Comment noted and agreed. The text has been revised to reflect this comment in Section 2.4, and in Section 2.3 as indicated in the response to Comment 13b.

b. 1st bullet. Two orders of magnitude is a very large increase; perhaps one order of magnitude should be the criterion.

Response: The text has been revised to state that one order of magnitude change will be used as a guide to determine if changes in the plan need to be considered.

c. 6th bullet, this should also note that NDEP may determine that the program objectives have changed.

Response: The text has been revised as follows: *"BRC **or NDEP** determines that the overall objectives of this proposed monitoring plan are not being met."*

16. Figure 4, this figure is still incomplete as wells are missing.

Response: Figure 4 in the October 28, 2008 version of the plan included only Shallow Zone wells. Middle Zone and Deep Zone wells were not included on this map.

17. Figure 7, the NDEP has the following comments:

a. Please investigate the viability of including well M-5A on the east side of the CAMU area and add this well to the program, if applicable.

Response: BRC investigated the applicability of including this well. Because Shallow Zone well M-5A is located near and between two Shallow Zone wells already included in the plan (AA-BW-01A and AA-BW-02A), this area is considered to be sufficiently covered in the plan and M-5A is not needed.

b. Please include well MCF-BW-11A in the sampling program. Please note that this well may be sampled by the upgradient companies.

Response:Well MCF-BW-11A has been added to the monitoring plan.

18. Table 3, the NDEP has the following comments:

a. The specific analytical parameters need to be identified somewhere in this plan.

Response: The revised plan includes Table 4, which lists the parameters in each analyte group.

b. For PCBs, congener analysis also needs to be added.

Response: Congener analysis for PCBs has been added to the revised plan (Table 3).

c. Regarding footnote "a", it is not clear how this will be accomplished with the limitations on upgradient data that are specified by BRC. See NDEP comments above.

Response: These parameters have also been added to selected wells along the southern CAMU area perimeter to sample upgradient impacts as part of the STA evaluation.

d. Regarding white phosphorous and methyl mercury, these analysis should be conducted if groundwater conditions are suitable.

Response: The revised plan has been edited to include field monitoring for dissolved oxygen (DO) with a flow-through cell (in accordance with SOP #5). If DO data indicate suitable conditions, then these parameters will be added to the analytical program as requested.

e. The parameters necessary to conduct a defensible cation-anion balance must be added to the analytical program, if not included already.

Response: The major anions and cations have been added to the analyte list so that a balance can be completed.

Appendix A, Response to NDEP Comments Dated October 13, 2008

19. NDEP Comment 2 (c), BRC Response. "*After this baseline sampling period…BRC will evaluate the data collected…*" Given the site groundwater contaminant conditions, the NDEP will need to determine if four quarters of data is sufficient to made the suggested decision.

Response: Comment noted. Please also see response to Comment 13b.

20. NDEP Comment 3 (a), BRC Response. The BRC response does not address the AMPAC wells to the west as requested.

Response: The AMPAC wells to the northwest are located outside of the area of groundwater impacts associated with the CAMU area; as a result, groundwater sampling is not proposed in these wells. The revised plan includes this information.

21. NDEP Comment 3 (b), BRC Response. There are no wells in the southwest corner of the site, see Figure 7.

Response: Well AA-BW-07A and MCF-BW-11A are now included in the plan to evaluate groundwater conditions in the western and southwestern portions of the CAMU area (also see response to Comment 17b).

22. NDEP Comment 3 (c), BRC Response. *"As discussed with NDEP, the revised plan focuses on first water impacts downgradient of the CAMU that can potentially be attributable to releases from the CAMU or the BMI Landfills. Currently, there are no data to suggest that these are a source of impact to first water. As a result, BRC believes that an evaluation of potential deeper impacts due to the CAMU or BMI Landfills is not appropriate at this time. Thus, additional UMCf wells are not proposed for sampling at this time."* There are several comments in regards to the BRC response. First, has there been any attempt to specifically collect data in the UMCf regarding the potential impact from the BMI Landfills? If not then the third sentence of this section does not logically follow. Perhaps this issue should be reviewed with the NDEP.

Response: BRC's monitoring events at the CAMU area have included wells screened in the Muddy Creek formation. Analytical data from these monitoring events will be used, in part, to evaluate impacts potentially attributable to the CAMU area. It appears that relatively high-concentration impacts originating upgradient effectively mask impacts originating at the CAMU area. The revised plan includes both Middle Zone and Deep Zone wells to further evaluate groundwater impacts in the CAMU area.

23. NDEP Comment 3 (e), BRC Response. Refer to response to Comment 3 (b).

Response: As discussed in the revised plan, existing Middle Zone and Deep Zone wells have been added to the monitoring program.

24. NDEP Comment 5 (a), BRC Response. "Comment noted. BRC is continuing to work with the analytical laboratories to achieve the lowest detection limits possible during each monitoring event." Specifically what is being done in this regard?

Response: BRC has contacted the laboratory and requested re-analysis of samples using improved calibration techniques in cases where high concentrations of a particular analyte have biased the sample results low because they are out of range of the calibration curve.

Appendix C, Regional Groundwater Quality

25. Figure D-4, -7, and -20, what is the rationale for excluding some data for the purpose of contouring?

Response: The figures plot data for the Shallow Zone, so data for wells screened in the Middle Zone or the Deep Zone were excluded from the contours. The excluded wells were retained on the figures solely for reference.

26. Figure D-7, there is data posted on the map with obviously elevated detection limits. Is there any utility in posting this data?

Response: Although limited, these data show partial information (an upper limit) that is otherwise not available.

Appendix B

Historical Upgradient Site Use and Potential Impacts

115°1'48"W 115°1'12"W 115°0'36"W 115°0'0"W

36°3'0"N 36°2'24"N

- Site Boundary
- Former Effluent Ponds
- Existing Landfill
- Slit Trenches
- 1 ACD Pond #1
- 2 ACD Pond #2
- 3 Benzene UST (reported 30,000 gallon spill)
- 4 BMI Landfill
- 5 Buried Drums
- 6 CAPD Pond #2 (During pond closure, black fluid observed emanating from vadose zone beneath ponds area [Montrose 1993])
- 7 CAPD Pond #3
- 8 CAPD Pond #4 (During pond closure, black fluid observed emanating from vadose zone beneath ponds area [Montrose 1993])
- 9 CAPD Pond #5 (During pond closure, black fluid observed emanating from vadose zone beneath ponds area [Montrose 1993])
- 10 CAPD Pond #6
- 11 CAPD Pond #7
- 12 CAPD Pond #8
- 13 Former Benzene Tank
- 14 Former Montrose Plant (including abandoned Redwood Tank, associated with impacted soil left in place with one foot of soil cover)
- 15 Former Montrose Ponds
- 16 Former Montrose Tank Farm
- 17 G&M (1980) reported three wells had free product in them in 1979: LG032, H-9, H-8
- 18 Historical discharge of ACD wastes
- 19 MCB Spill (March 1974; 2,300 gallons of monochlorobenzene spilled from tank car)
- 20 Slit Trenches (debris observed included bags labeled Montrose DDT, black oily sludge, chalky substances, wood, fabric, cement, etc.)
- 21 Stauffer BHC Cake Piles
- 22 Stauffer Closed Acid Ponds and Leach Beds
- 23 Truck Loading Station
- 24 Western Ditch

LG032 H-09 H-08

N

400 200 0 400
Feet

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE 3-1

OBSERVATIONS OF CHEMICAL PRESENCE NOT BASED ON SUBSURFACE ANALYTIC DATA

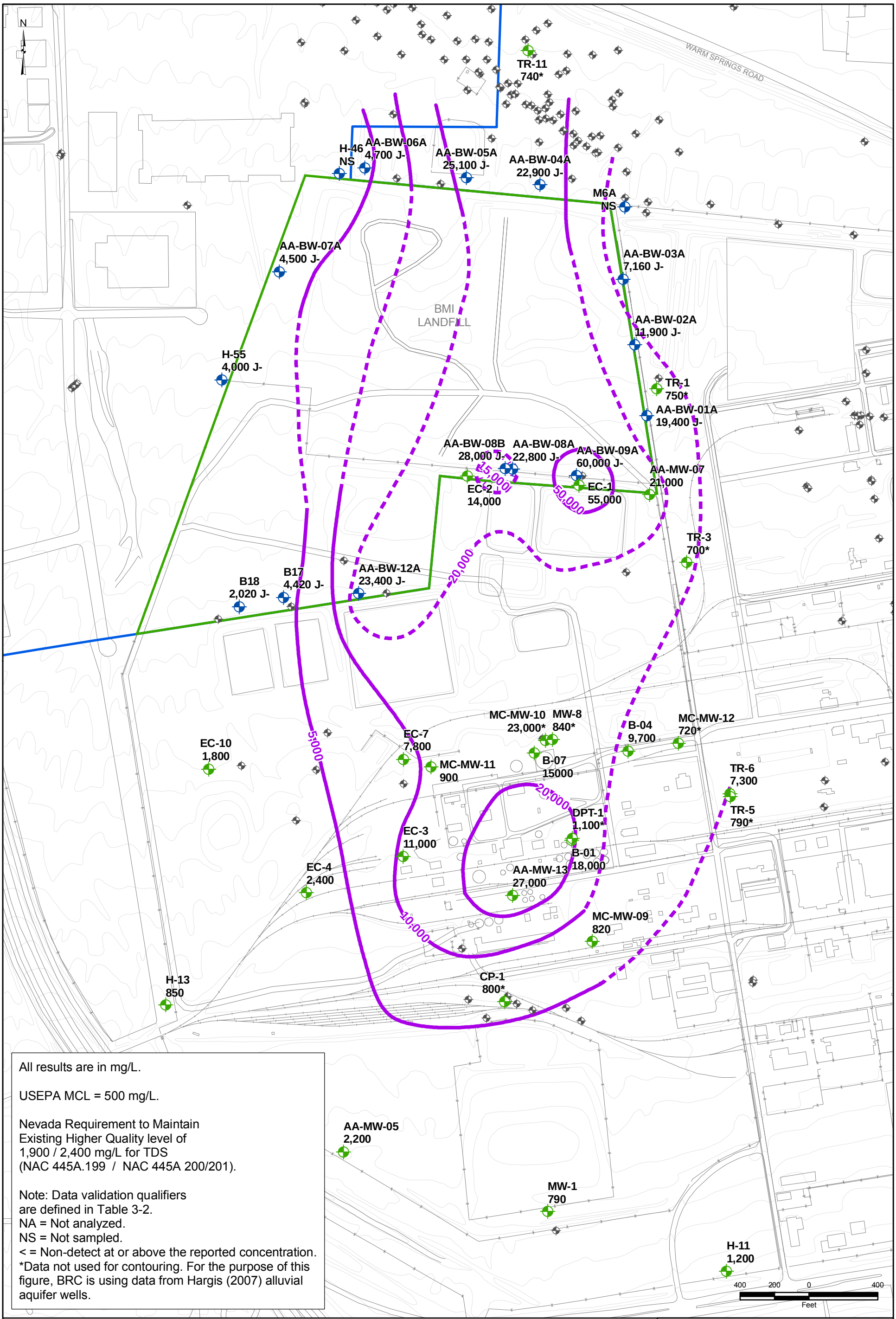
Basic Remediation COMPANY

Prepared by: MWH MKJ | Date 10/13/06 | JOB No. 1881425 | FILE: GIS/BRC/CAMU/FIGURE_3-1.MXD

Daniel B. Stephens & Associates, Inc.
JN ES05.0067

Appendix C

Regional Groundwater Quality



All results are in mg/L.

USEPA MCL = 500 mg/L.

Nevada Requirement to Maintain
Existing Higher Quality level of
1,900 / 2,400 mg/L for TDS
(NAC 445A.199 / NAC 445A 200/201).

Note: Data validation qualifiers
are defined in Table 3-2.
NA = Not analyzed.
NS = Not sampled.
< = Non-detect at or above the reported concentration.
*Data not used for contouring. For the purpose of this figure, BRC is using data from Hargis (2007) alluvial aquifer wells.

Site AOC3 Boundary
Site Soil Boundary
Concentration Contour (dashed where inferred)
BRC GMP Monitoring Wells
Montrose Monitoring Wells
Other Monitoring Wells

CAMU GROUNDWATER MONITORING REPORT
(OCTOBER-NOVEMBER 2007)

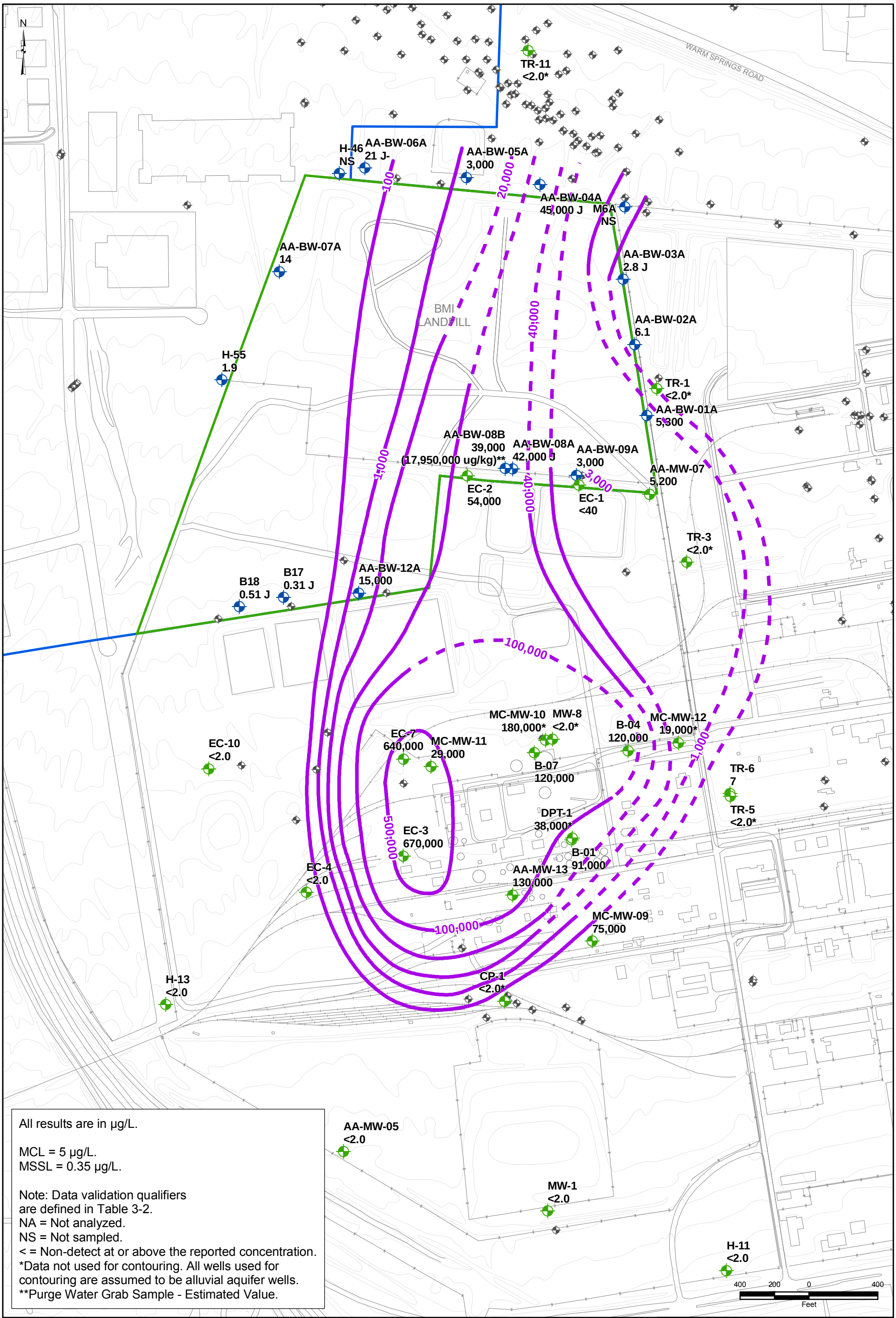
Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE D-20

TOTAL DISSOLVED SOLIDS IN SHALLOW ZONE

Basic Remediation Company

Prepared by: ERM MWH | Date 09/17/08 | JOB No. 0074742 | FILE: GIS/BRC/CAMU_GW/APPENDIX-D.MXD



All results are in µg/L.

MCL = 5 µg/L.
MSSL = 0.35 µg/L.

Note: Data validation qualifiers are defined in Table 3-2.
NA = Not analyzed.
NS = Not sampled.
< = Non-detect at or above the reported concentration.
*Data not used for contouring. All wells used for contouring are assumed to be alluvial aquifer wells.
**Purge Water Grab Sample - Estimated Value.

Site AOC3 Boundary
Site Soil Boundary

Concentration Contour (dashed where inferred)
BRC GMP Monitoring Wells
Montrose Monitoring Wells
Other Monitoring Wells

CAMU GROUNDWATER MONITORING REPORT
(OCTOBER-NOVEMBER 2007)

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE D-4

BENZENE
IN SHALLOW ZONE

Basic Remediation COMPANY

Prepared by: ERM MWH
Date 09/17/08
JOB No. 0074742
FILE: GIS/BRC/CAMU_GW/APPENDIX-D.MXD

N

WARM SPRINGS ROAD

BMI LANDFILL

TR-11 <2.0*

H-46 NS

AA-BW-06A < 1 UJ

AA-BW-05A 15 J

AA-BW-04A 750 J

M6A NS

500

AA-BW-07A < 1 U

AA-BW-03A < 1 UJ

AA-BW-02A < 1 U

H-55 < 1 U

TR-1 <2.0*

AA-BW-01A 25 J

AA-BW-08B 62 J

AA-BW-08A 52 J

AA-BW-09A 22 J+

EC-2 <400

EC-1 <40

AA-MW-07 <40

TR-3 <2.0*

B18 < 1 U

B17 < 1 U

AA-BW-12A < 50 U

100

MC-MW-10 <1000*

MW-8 <2.0*

B-04 <1000

MC-MW-12 <1000*

EC-10 <2.0

EC-7 <1000

B-07 <400

MC-MW-11 <1000

TR-6 3

TR-5 <2.0*

1,000

DPT-1 <800*

EC-3 1,100

B-01 <1000

EC-4 <2.0

AA-MW-13 <1000

MC-MW-09 <500

50

10

H-13 <2.0

CP-1 <2.0*

AA-MW-05 <2.0

MW-1 <2.0

H-11 <2.0

400 200 0 400

Feet

All results are in µg/L.

MCL = 5 µg/L.
MSSL = 0.10 µg/L.

Note: Data validation qualifiers are defined in Table 3-2.
NA = Not analyzed.
NS = Not sampled.
< = Non-detect at or above the reported concentration.
*Data not used for contouring. For the purpose of this figure, BRC is using data from Hargis (2007) alluvial aquifer wells.

Site AOC3 Boundary

Site Soil Boundary

Concentration Contour (dashed where inferred)

BRC GMP Monitoring Wells

Montrose Monitoring Wells

Other Monitoring Wells

CAMU GROUNDWATER MONITORING REPORT (OCTOBER-NOVEMBER 2007)

Corrective Action Management Unit (CAMU)
BMI Complex, Henderson, Nevada

FIGURE D-7

TETRACHLOROETHYLENE IN SHALLOW ZONE

Basic Remediation COMPANY

Prepared by: ERM MWH

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