

**GROUNDWATER MONITORING
ASSESSMENT JANUARY 2007**

**BRADKEN KILBURN FOUNDRY
CROMWELL ROAD, KILBURN, SOUTH
AUSTRALIA**

Prepared for:

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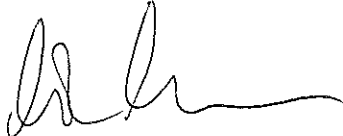
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ABBREVIATIONS

AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
AST	Aboveground Storage Tank
C₆-C₃₆	Hydrocarbon chainlength fraction
Bgs	below ground surface
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
COC	Chain of Custody
DO	Dissolved Oxygen
EC	Electrical Conductivity
Eh	Oxidation/Reduction Potential
ESA	Environmental Site Assessment
ID	Identification
IP	Interface Probe
LOR	Limit of Reporting
MDL	Method Detection Limit
µg/L	micrograms per litre
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
MW	Monitoring Well
NATA	National Association of Testing Authorities
NEPM	National Environment Protection Measure

ABBREVIATIONS

OCP	Organochlorine Pesticide
OPP	Organophosphorous Pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PID	Photoionisation Detector
ppm	parts per million
ppmv	parts per million by volume
PSH	Phase Separated Hydrocarbon
QA	Quality Assurance
QC	Quality Control
RL	Reduced Level
RPD	Relative Percent Difference
SB	Soil Bore
SWL	Static Water Level
TCE	Trichloroethylene
TD	Total Depth
TDS	Total Dissolved Solid
TOC	Top of Casing
TPH	Total Petroleum Hydrocarbon
UST	Underground Storage Tank
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

Coffey Environments Pty Ltd (Coffey Environments) was contracted by Bradken Resources Pty Ltd (Bradken) to undertake an assessment of the quality of groundwater at the Bradken Kilburn Foundry located on Cromwell Road, Kilburn, South Australia (the site). The scope of works for the current investigation is based upon previous work completed at the site and a verbal approval from Kevin Gilbert of Bradken.

The objectives of this project were to provide a snapshot of groundwater quality from selected locations from the existing groundwater monitoring well network present at the site and to update findings from previous reports completed at the site to date by URS and Coffey Environments.

The scope of works included groundwater gauging and sampling of the eight monitoring wells located on the Bradken site on 29 and 30 January 2007 and updating of findings and recommendations from previous rounds of groundwater sampling.

Based on groundwater measurements recorded during this investigation, the interpreted groundwater flow direction was noted to be generally to the west and was found to be generally consistent with the work completed by URS in 2001 and subsequent work completed by Coffey Environments.

The groundwater table is lower than recorded in previous groundwater sampling events. This is potentially due to seasonal factors and to the very dry climatic conditions in South Australia. Due to the gradual inaccessibility of some monitoring locations for this round and the previous round of sampling, information from the URS 2001 groundwater gauging is included in this report. It is felt that this gives a more complete picture of groundwater flow at the Bradken site.

Benzene concentrations measured in groundwater samples previously collected from Monitoring Well MW9A which exceeded the adopted investigation level (IL), could not be evaluated in this round of sampling. For this sampling round, the sampling location was dry. Hydrocarbons were however measured in MW12, to the west of this location, where total PAH concentrations (24µg/L) exceeded the adopted IL. (0.01µg/L).

Although no groundwater sample could be collected from MW9A or MW9B during this round of sampling, the concentrations of benzene and ethylbenzene measured in groundwater at this location during previous investigations, have reduced, since the excavation of contaminated soil and replacement with clean fill was completed in 2003.

Based upon the removal, to the practical extent possible, of contaminated soil at that location in 2003 and the recorded reduction in hydrocarbon impacts in the groundwater at the same location, noted in sampling completed to date by Coffey Environments, it is reasonable to conclude that this trend is likely to continue and continued periodic monitoring of selected wells is warranted, to document this trend.

Heavy metals have been detected in site groundwater samples during this investigation, including selected metals above adopted ILs. This is consistent with the findings of sampling, completed to date by Coffey Environments. A wider range of metals analysis has been completed in this round of sampling and the previous round in June 2006. Prior to this, the range of metals evaluated was more limited.

- Selenium concentrations in the groundwater was noted to exceed the adopted IL (fresh aquatic ecosystem) (5µg/L) in five of seven samples collected from groundwater monitoring wells. Measured concentrations ranged from 12µg/L to 40µg/L (MW2, MW6, MW8, MW10 and MW11). Selenium concentrations have not been reported in previous groundwater investigations at the site;

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- Molybdenum concentrations in groundwater was noted to exceed the adopted IL (agriculture/aquaculture) (10µg/L) in six (not MW8) of the seven groundwater samples with concentrations ranging from 15µg/L to 110µg/L. Molybdenum has not been reported in the previous investigations completed at the site; and
- Zinc concentrations in groundwater was noted to exceed the adopted IL (Aquaculture) (5 µg/L) in two (MW2 and MW11) of seven samples collected from site groundwater monitoring wells. This result was consistent with previous sampling completed at the site.

There appears to be no trend of increasing concentration of heavy metals in the groundwater under the site. This is consistent with previous sampling at the site, where no consistent pattern of heavy metal concentrations in shallow groundwater could be deduced from the sampling completed. This suggests that there may be other factors, other than the operations at the site, which could be influencing the pattern of heavy metals concentrations at the site.

No work has been completed to date to evaluate localised impacts from other adjacent land uses or local or regional groundwater quality in the shallow aquifers around the Bradken facility. Specifically, no sampling is known to have been conducted outside the boundaries of the Bradken facility, relating to the concentration of heavy metals in shallow groundwater and consequently the context for the detection of metals in the shallow aquifer at the Bradken facility is not fully understood.

All remaining analytes were reported as either below the adopted IL or below the laboratory limit of reporting (LOR).

All conclusions and findings of this report are subject to the attached Coffey Environments Statement of Limitations.

1 INTRODUCTION

1.1 Background

Coffey Environments Pty Ltd (Coffey Environments) was contracted by Bradken Resources Pty Ltd (Bradken) to undertake an assessment of the quality of groundwater at the Bradken Kilburn Foundry located on Cromwell Road, Kilburn, South Australia (the site). The scope of works for the current investigation is based upon the acceptance of the proposal prepared by Coffey Environments dated 26 July 2006 and subsequent instructions from Kevin Gilbert of Bradken.

1.2 Objectives

The objectives of this project were:

- to provide a snapshot of groundwater quality from selected locations from the existing groundwater monitoring network present at the site; and
- to update findings from previous reports completed at the site.

The findings of this report will address selected aspects of the *Guidelines for the preparation of a Public Environmental Report for the Upgrading and expansion of a Foundry at Cromwell Road, Kilburn*, Planning SA, June 2006.

1.3 Scope of Works

All works were undertaken in accordance with the *National Environment Protection (Assessment of Site Contamination) Measures (NEPM) (1999)*, highest industrial standards and Coffey Environments' standard work practices.

To achieve the objectives of this project, the following scope of work was completed:

- Preparation for site work, including the development of a sampling plan and site safety plan;
- Groundwater gauging and field water quality parameters were recorded for seven groundwater monitoring wells (MW2, MW3, MW6, MW8, MW10, MW11 and MW12) previously installed at the site. MW9A and MW9B were dry during this round of sampling. A site plan with the sampling locations is included as Figure 1;
- Sampling and analysis of groundwater from the above mentioned monitoring wells for Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Total Petroleum Hydrocarbons (TPH), total Polycyclic Aromatic Hydrocarbons (PAH's), metals screen and volatile organic compounds (VOCs), phenols and cations and anions; and
- Development of a summary report outlining the results of the assessment.

2 BACKGROUND INFORMATION

The Bradken site is approximately 50,000 square metres in size and is generally flat. It has an established groundwater monitoring well network, which has been in place since 2001. After a comprehensive groundwater evaluation in 2001, intermittent sampling has been completed, predominantly to address hydrocarbon related contamination in the south-west portion of the site. The following sections briefly summarise the sampling completed for Bradken by URS and Coffey Environments and available for review by Coffey Environments for this project.

A report titled *Project Resources: Phase II Site Contamination Assessment Adelaide*, URS, November 2001 (Reference 49306_002_R001-A.DOC) summarized the installation of 33 soil borings and 11 related monitoring wells. Monitoring well gauging, sampling, data evaluation and subsequent reporting was completed during this project.

The findings indicated concentrations of TPH, BTEX, total PAH including 2,4 dimethylphenol and naphthalene in MW9 and concentrations of TPH, ethylbenzene and total xylenes in groundwater samples collected from MW12. These concentrations of hydrocarbons were believed to be related to the presumed release of hydrocarbons from an underground storage tank (UST), containing petroleum products, formerly located at this part of the site. This UST was removed in 1995. URS recommended that the tank pit be excavated and that further groundwater monitoring take place.

Based upon the recommendations from the URS report, Bradken engaged MPL, now Coffey Environments, to conduct further groundwater assessments at the site in 2002, 2003 and 2004. A brief summary of each report is detailed below, along with other work that was completed to address the findings detailed in the 2001 URS report. In addition, agreements Bradken made with the South Australia Environment Protection Agency (SAEPA), following the official reporting of the release are summarised below:

- 2002 – Ten Monitoring wells were gauged for standing water level. Of these, two wells in the vicinity of petroleum hydrocarbon contamination noted in the original URS groundwater study were sampled and analysed for TPH, BTEX and total PAH's. MW9 reported concentrations of TPH and BTEX and total PAH above the laboratory limit of reporting (LOR).
- 2003 – One groundwater monitoring well (MW9) was sampled for TPH, BTEX and PAH. Concentrations of BTEX, TPH (C₆-C₁₄) and total PAH above the LOR were reported.
- 2003 – Adelaide Environmental Consulting completed a report titled *Preliminary Risk Assessment Hydrocarbon Contamination*, December 2003. This report only focused on the south west corner of the site, where petroleum hydrocarbon contamination had previously been reported. This report concluded that there was no significant human health risk to onsite and offsite receptors and that groundwater monitoring should be continued.
- 2003 – Excavation and contaminated soil removal was completed by McMahon Services for Bradken in 2003 at the former UST pit. MW9, which was lost during this process, was replaced by two monitoring wells (MW9A and MW9B), which were placed in the excavation and backfilled with clean soil. No detailed construction information is available for these monitoring wells. This work was completed, as agreed between Bradken and the SAEPA. Part of this agreement included a commitment from Bradken to continue to monitor groundwater at the site.

- 2004 – Eleven monitoring wells were gauged for standing water level (SWL). Of these three wells (MW9A, MW9B and MW12) were sampled and analysed for BTEX, TPH and PAH. All monitoring wells reported concentrations of BTEX, TPH and total PAH less than the Environmental Protection (Water Quality) Policy, Water Quality Criteria, (Potable) criteria. MPL, now Coffey Environments, concluded that there had been a significant reduction in the concentration of petroleum hydrocarbon concentrations noted at this location. It was concluded that a potential plume of groundwater contamination may have migrated offsite, although the existence of an offsite plume has never been confirmed and no offsite work to investigate this was required by the SAEPA and none has been completed to date.
- 2006- The scope of works completed by Coffey Environments included groundwater gauging and sampling of the eight monitoring wells (MW2, MW3, MW6, MW8, MW9A, MW10, MW11 and MW12). Benzene was reported to exceed the adopted investigation level (IL) at monitoring well MW9A. Although other petroleum related hydrocarbons were noted at this well and MW12 to the west, the concentrations did not exceed the adopted IL. However zinc concentrations exceeding the adopted IL (aquaculture) in six of eight groundwater samples collected from monitoring wells at the site.

All remaining analytes had concentrations that were either below the adopted IL or below the laboratory limit of reporting (LOR).

Coffey Environments concluded that no further remedial action was required or warranted in the vicinity of MW9A in the south-west portion of the site. The concentrations of benzene and ethylbenzene detected in groundwater at this location had significantly reduced, since the excavation of contaminated soil and replacement with clean fill was completed in 2003.

2.1 Summary of Field Investigation

The field activities conducted at the site as part of this assessment are summarised below.

Activity	Details
Date of Field Activity	29-30 January 2007
Well Gauging	Monitoring wells MW2, MW3, MW6, MW8, MW9A, MW10, MW11 and MW12 were gauged using a Solinist oil/water interface probe (IP). Previously installed wells, MW1, MW4, MW5 and MW7, either could not be accessed or were lost or destroyed. A sample of groundwater could not be collected from MW9A or MW9B, because the wells were dry.
Well Purging	A minimum of three well volumes were removed from each of the monitoring wells, proposed to be sampled, unless they were bailed dry during purging, using a new disposable bailer and new disposable nitrile gloves for each well. Measurement of water quality parameters was conducted after every well volume. Purging continued until parameters stabilised.

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Activity	Details
Sampling Method	New disposable nitrile gloves and bailers were used to obtain groundwater samples from monitoring wells.
Decontamination Procedure	Water sampling equipment such as field filters and the IP, were decontaminated with laboratory grade detergent and rinsed with demineralised water between wells. One new disposable bailer was used per well.
Sample Preservation and Shipment	Samples were placed in laboratory supplied bottles containing appropriate preservatives. Samples were stored on ice (<4°C) in an esky while on site and in transit to MGT Environmental Laboratories in Melbourne. Samples collected for metals analysis were filtered in the field. Samples were transported under standard Coffey Environments Chain of Custody Requirements (Appendix B).
Disposal of Purged Groundwater	Purged groundwater was temporarily stored at the well and then disposed at an interceptor within the Bradken site.

3 SITE HYDROGEOLOGY

Pre-purge groundwater gauging data was collected on 29 January 2007. The groundwater gradient across the site, based on the gauging data, is considered consistent with previous rounds of groundwater sampling completed at the site since 2001. Groundwater information derived from the gauged wells, for January 2007 are presented in Table 1 and Figure 1.

Based on the limited number of wells available to gauge and their locations, only limited interpretation can be made. The information related to gauging of the site completed in 2001 by URS is also included with this report as Figure 2, for information. Groundwater gauging results from the January 2007 sampling are summarised below:

- Groundwater elevation across the area of investigation range between 2.01 metres Australian Height Datum (mAHD) (MW11) and 2.23mAHD (MW3). Groundwater elevations were between 1 and 2 metres below ground surface. Comparisons with the August 2006 sampling suggests an overall drop in groundwater elevation of between 20 and 30 centimetres across the site;
- The inferred groundwater flow direction is to the west. This is consistent with the original work completed by URS in 2001. The loss of a number of wells since the original works completed in 2001 limits the interpretation that could be completed in this round of gauging and sampling;
- There is likely to be some local mounding in the vicinity of the stormwater retention pond, given that the design included an infiltration system to groundwater. Previous field surveying of surface water elevation in the pond (Coffey Environments, 2006), indicated that the surface water elevation was approximately one meter higher than groundwater in adjacent monitoring wells; and
- Water quality information gathered during this investigation is broadly consistent with information gathered during previous work at the Bradken site. Total dissolved solids (TDS) ranged from 411mg/l to around 2,900mg/l. pH measurements were recorded to range between of 7.8 to 8.8.

4 ADOPTED INVESTIGATION LEVELS

The adopted investigation levels (IL) for groundwater at the Bradken site are presented below:

- South Australia Environment Protection Authority SA EPA (2003) Environmental Protection (Water Quality) Policy, Water Quality Criteria for Underground Waters, including criteria for the Aquatic ecosystem, Recreation and Aesthetics, Potable, Agriculture/aquaculture and Industrial (protected environmental values) are the primary evaluation criteria;
- For groundwater, including cases where a water body is protected for more than one of the environmental values, the most stringent water quality criteria will apply;
- In addition, it is suggested that the Environmental Protection (Water Quality) Policy, Water Quality Criteria, (Potable) is the highest potential beneficial use of groundwater at the site and this criteria is specifically compared to the results as a point of reference; and
- At the request of Bradken for the purpose of this report, the most conservative water quality criteria is used to compare the detected concentration in groundwater samples.

5 SUMMARY OF ANALYTICAL FINDINGS

The following summary describes the findings of the groundwater assessment at the Bradken site completed in January 2007. The concentrations of analytes noted above the adopted IL in any samples are presented in Table 2.

- Concentrations of Total PAHs exceeding the adopted IL (potable) in groundwater samples collected from MW12 had a value of 24µg/L;
- Concentrations of TPH C₆ – C₉ and TPH C₁₀ – C₁₄ exceeding the laboratory LOR were found in groundwater samples collected from MW12 with concentrations of 240µg/L and 470µg/L respectively. An IL for TPH has not been established;
- Concentrations of ethylbenzene and xylenes exceeding the laboratory LOR but below the adopted ILs were found in groundwater samples collected from MW12 with concentrations of 100µg/L and 43µg/L respectively;
- Since no sample could be collected from MW9A and MW9B, analyte concentrations at this location could not be evaluated at this time;
- Selenium concentrations were recorded as exceeding the adopted IL (fresh aquatic ecosystem) (5µg/L) in five of seven groundwater samples with values ranging from 12µg/L to 40µg/L (MW2, MW6, MW8, MW10 and MW11). This result has not been reported in the previous groundwater investigations;
- Molybdenum concentrations were recorded as exceeding the adopted IL (agriculture/aquaculture) (10µg/L) all samples except MW8, with concentrations ranging from 15µg/L to 110µg/L. This result has not been reported in the previous groundwater investigations at the site; and
- Zinc concentrations were recorded as exceeding the adopted IL (Aquaculture) (5 µg/L) (MW2 and MW11) of seven groundwater samples. This result was consistent with previous sampling completed at the site.

All remaining analytes were reported as either below the adopted IL or below the LOR.

6 QUALITY ASSURANCE RESULTS

6.1.1 Field Quality Control

The COC indicates that the samples were received and processed by the laboratory in accordance with project requirements. One QC field duplicate sample QC1, corresponding to primary soil sample MW12 collected and submitted for BTEX, TPH, PAH's, metals screen and VOCs laboratory analysis at MGT Environmental Consulting Pty Ltd (MGT). Calculated RPDs were acceptable for all primary and duplicate sample pairing, or could not be calculated because either primary or duplicate, or both, sample concentrations were below the LOR (Refer to Appendix B).

6.1.2 Equipment Rinsate Samples

One trip blank (QC3) and one equipment rinsate blank (QC2) were submitted to MGT for TPH and BTEX analysis. Concentrations of TPH and BTEX in both blanks and the trip blank, were below the laboratory LOR.

The overall absence of any detectable contaminants of concern in the trip blank and equipment rinsate indicates that adequate field cleaning protocols were undertaken to prevent/minimise the possibility of any sampling cross contamination.

In summary, Coffey Environments considers that the water trip blank and equipment rinsate QC results indicate that the primary laboratory results are acceptable for the purposes of this investigation.

6.1.3 Laboratory Quality Control

Accuracy of laboratory QC results (laboratory control samples, matrix spikes and surrogates) is measured by percentage recovery (%R) of known additions. Acceptance targets for laboratory control samples and matrix spikes is generally between 75% and 125% recovery for organics and metals (MGT), however, acceptable accuracy for certain methods may exceed these limits (USEPA 1986). Acceptance targets for surrogates are between 50% and 150% recovery for organic compounds. It should be noted that matrix dependant QC methods (matrix spikes, surrogates) can be affected by the matrix, hence these %R results have been reviewed qualitatively.

Laboratory QC results are presented as part of the Certificate of Analysis and are included in Appendix B.

Laboratory QC analytical results for MGT are summarised below:

- All target analytes in the Method blank samples, were below the LOR;
- RPDs for all analytes in duplicate samples were within the laboratory acceptance criteria;
- Surrogate recovery results were all within the acceptable range; and
- Percentage recovery results were within the acceptable range for all spike recovery samples.

In summary, Coffey Environments considers that the laboratory and field QA/QC results for the soils analysis portion of the work are acceptable for the purposes of confirming the reliability and repeatability of the sampling and laboratory analysis procedures. As such, all primary sample results are considered to be acceptable for use in this GME.

7 SUMMARY AND CONCLUSIONS

Groundwater gauging and sampling was completed at the Bradken site on 29 and 30 January 2007 from the seven monitoring wells available to be sampled.

Based upon the groundwater measurements recorded during this investigation, the interpreted groundwater flow direction was noted to be generally to the west and was found to be consistent with the work completed by URS at the site in 2001. The water table is lower than in previous groundwater sampling events reviewed for this report. This is likely due to the lowering of the groundwater table, presumably due to seasonal factors and to dry climatic conditions in South Australia at the time of sampling. In addition, due to the gradual inaccessibility of some monitoring locations for this round and the previous round of sampling, information from the 2001 groundwater gauging is included with this report.

Benzene concentrations measured in groundwater samples previously collected from Monitoring Well (MW) 9A which exceeded the adopted investigation level (IL), could not be evaluated in this round of sampling. For this sampling round, the sampling location was dry. Hydrocarbons were however measured in MW12, to the west of this location, where total PAH concentrations (24µg/L) exceeded the adopted IL. (0.01µg/L).

Although no groundwater sample could be collected from MW9A or MW9B during this round of sampling, the concentrations of benzene and ethylbenzene measured in groundwater at this location during previous investigations, have reduced, since the excavation of contaminated soil and replacement with clean fill was completed in 2003.

Based upon the removal, to the practical extent possible, of contaminated soil at that location in 2003 and the recorded reduction in hydrocarbon impacts in the groundwater at the same location, noted in sampling completed to date by Coffey Environments, it is reasonable to conclude that this trend is likely to continue and continued periodic monitoring of selected wells is warranted, to document this trend.

Heavy metals have been detected in site groundwater samples during this investigation, including selected metals above adopted ILs. This is consistent with the findings of sampling, completed to date by Coffey Environments. A wider range of metals analysis has been completed in this round of sampling and the previous round in June 2006. Prior to this, the range of metals evaluated was more limited.

- Selenium concentrations in the groundwater was noted to exceed the adopted IL (fresh aquatic ecosystem) (5µg/L) in five of seven samples collected from groundwater monitoring wells. Measured concentrations ranged from 12µg/L to 40µg/L (MW2, MW6, MW8, MW10 and MW11). Selenium concentrations have not been reported in previous groundwater investigations at the site;
- Molybdenum concentrations in groundwater was noted to exceed the adopted IL (agriculture/aquaculture) (10µg/L) in six of the seven groundwater samples (not MW8), with concentrations ranging from 15µg/L to 110µg/L. Molybdenum has not been reported in the previous investigations completed at the site; and
- Zinc concentrations in groundwater was noted to exceed the adopted IL (Aquaculture) (5 µg/L) in two (MW2 and MW11) of seven samples collected from site groundwater monitoring wells. This result was consistent with previous sampling completed at the site.

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There appears to be no trend of in the concentration of heavy metals in the groundwater under the site. This is consistent with previous sampling at the site, where no consistent pattern of heavy metal concentrations in shallow groundwater could be deduced from the sampling completed. This suggests that there may be other factors, other than the operations at the site, which could influence the pattern of heavy metals concentrations noted at the site.

No work has been completed to date to evaluate localised impacts from other adjacent land uses or local or regional groundwater quality in the shallow aquifers around the Bradken facility. Specifically, no sampling is known to have been conducted outside the boundaries of the Bradken facility, relating to the concentration of heavy metals in shallow groundwater and consequently the context for the detection of metals in the shallow aquifer at the Bradken facility is not fully understood.

All remaining analytes were reported as either below the adopted IL or below the laboratory limit of reporting (LOR).

All remaining analytes were reported as either below the IL or the laboratory LOR.

8 DISCUSSION AND RECOMMENDATIONS

The following discussion and recommendations have been developed, based upon the findings of this report and observations made during the field investigation.

The recorded concentrations of petroleum hydrocarbon related contaminants in groundwater at MW12 during this investigation is consistent with the continuing decline of these concentrations in this area.

Although no groundwater sample could be collected from MW9A during this round of sampling, the concentrations of benzene and ethylbenzene recorded in groundwater at this location during previous investigations has reduced since the excavation of contaminated soil and replacement with clean fill was completed in 2003.

Based upon the removal, to the practical extent possible, of contaminated soil at that location in 2003 and the recorded reduction in hydrocarbon impact in the groundwater at the same location, it is reasonable to conclude that this trend is likely to continue and continued periodic monitoring of selected wells is warranted, to document this trend.

There appears to be no trend of increasing concentration of heavy metals in the groundwater under the site. This is consistent with previous sampling at the site, where no consistent pattern of heavy metal concentrations in shallow groundwater can be deduced from the sampling completed. This suggests that there may be other factors, other than the operations at the site, which could be influencing the pattern of heavy metals concentrations at the site.

No work has been completed to date to evaluate localised impacts from other adjacent land uses or local or regional groundwater quality in the shallow aquifers around the Bradken facility. Specifically, no sampling is known to have been conducted outside the boundaries of the Bradken facility, relating to the concentration of heavy metals in shallow groundwater and consequently the context for the detection of metals in the shallow aquifer at the Bradken facility is not fully understood.

In order to evaluate the concentration of zinc, selenium and molybdenum in surface groundwater in the vicinity of the Bradken facility, further sampling would be required.

The future management of stormwater at the site is considered one of the most important factors in managing potential future impacts to groundwater at the site, given the current stormwater retention pond infiltration design. It is understood that Bradken is addressing this issue. It is recommended that measures to protect groundwater should be included in any environmental management plan developed for the site to address both the construction and operation phase of the proposed development.

It is specifically recommended that appropriate precautions be taken during the construction phase of the project, to ensure that any potential releases at the site are appropriately managed, to ensure that there is no impact to groundwater at the site during this phase of the development.

In order to have greater confidence in the distribution of recorded contaminants and the pattern of groundwater flow under the Bradken site, Coffey Environments recommends the reinstallation of selected wells lost since the original sampling in 2001. A detailed plan can be developed by Coffey Environments.

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In addition, it is noted that the wells near the former underground storage tank are not conventionally designed and may not be deep enough to fully characterise groundwater at this location. It is felt that a well at this location should be installed to replace MW9A and MW9B, to contribute to better understanding of groundwater flow direction and contaminant concentrations in this part of the site. The existing wells should be abandoned using approved methods.

9 STATEMENT OF LIMITATIONS

All conclusions and findings of this report are subject to the attached Coffey Environments Statement of Limitations.

Important information about your **Coffey** Environmental Report

Uncertainties as to what lies below the ground on potentially contaminated sites can lead to remediation costs blow outs, reduction in the value of the land and to delays in the redevelopment of land. These uncertainties are an inherent part of dealing with land contamination. The following notes have been prepared by Coffey to help you interpret and understand the limitations of your report.

Your report has been written for a specific purpose

Your report has been developed on the basis of a specific purpose as understood by Coffey and applies only to the site or area investigated. For example, the purpose of your report may be:

- To assess the environmental effects of an on-going operation.
- To provide due diligence on behalf of a property vendor.
- To provide due diligence on behalf of a property purchaser.
- To provide information related to redevelopment of the site due to a proposed change in use, for example, industrial use to a residential use.
- To assess the existing baseline environmental, and sometimes geological and hydrological conditions or constraints of a site prior to an activity which may alter the sites environmental, geological or hydrological condition.

For each purpose, a specific approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible, quantify risks that both recognised and unrecognised contamination pose to the proposed activity. Such risks may be both financial (for example, clean up costs or limitations to the site use) and physical (for example, potential health risks to users of the site or the general public).

Scope of Investigations

The work was conducted, and the report has been prepared, in response to specific instructions from the client to whom this report is addressed, within practical time and budgetary constraints, and in reliance on certain data and information made available to Coffey. The analyses, evaluations, opinions and conclusions presented in this report are based on those instructions, requirements, data or information, and they could change if such instructions etc. are in fact inaccurate or incomplete.

Subsurface conditions can change

Subsurface conditions are created by natural processes and the activity of man and may change with time. For example, groundwater levels can vary with time, fill may be placed on a site and pollutants may migrate with time. Because a report is based on conditions which existed at the time of the subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. Consult Coffey to be advised how time may have impacted on the project and/or on the property.

Interpretation of factual data

Environmental site assessments identify actual subsurface conditions only at those points where samples are taken and when they are taken. Data derived from indirect field measurements and sometimes other reports on the site are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions. Actual conditions may differ from those inferred to exist, because no professional, no matter how well qualified, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of Coffey through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other problems encountered on site.

Important information about your **Coffey** Environmental Report

Your report will only give preliminary recommendations

Your report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until project implementation has commenced and therefore your report recommendations can only be regarded as preliminary. Only Coffey, who prepared the report, is fully familiar with the background information needed to assess whether or not the report's recommendations are valid and whether or not changes should be considered with redevelopment or on-going use of the site. If another party undertakes the implementation of the recommendations of this report there is a risk that the report will be misinterpreted and Coffey cannot be held responsible for such misinterpretation.

Your report is prepared for specific purposes and persons

To avoid misuse of the information contained in your report it is recommended that you confer with Coffey before passing your report on to another party who may not be familiar with the background and the purpose of the report. In particular, a due diligence report for a property vendor may not be suitable for satisfying the needs of a purchaser. Your report should not be applied for any purpose other than that originally specified at the time the report was issued.

Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, retain Coffey to work with other professionals who are affected by the report. Have Coffey explain the report implications to professionals affected by them and then review plans and specifications produced to see how they have incorporated the report findings.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists, engineers or geologists based on their interpretation of field logs (assembled by field personnel), field testing and laboratory evaluation of field samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

Contact Coffey for additional assistance

Coffey is familiar with a variety of techniques and approaches that can be used to help reduce risks for all parties to land development and land use. It is common that not all approaches will be necessarily dealt with in your environmental site assessment report due to concepts proposed at that time. As a project progresses through planning and design toward construction and/or maintenance, speak with Coffey to develop alternative approaches to problems that may be of genuine benefit both in time and cost.

Responsibility

Environmental reporting relies on interpretation of factual information based on judgement and opinion and has a level of uncertainty attached to it, which is far less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. To help prevent this problem, a number of clauses have been developed for use in contracts, reports and other documents. Responsibility clauses do not transfer appropriate liabilities from Coffey to other parties but are included to identify where Coffey's responsibilities begin and end. Their use is intended to help all parties involved to recognise their individual responsibilities. Read all documents from Coffey closely and do not hesitate to ask any questions you may have.

Tables

**Groundwater Monitoring Assessment January 2007
Bradken Kilburn Foundry
Cromwell Road, Kilburn, SA**

Table 1

Well Gauging Details January 2007

Bradken Kilburn Foundry
Groundwater Assessment

Well ID	Date Measured	Total Depth (m)	Top of Well Casing Elevation (mAHD)	Depth to Water (mbtoc)	Corrected Water Elevation (mAHD)	Groundwater Elevation Aug 2006 (mAHD)	Comments
MW 1	29/01/2007	Well could not be located					
MW 2	29/01/2007	5.093	5.878	3.658	2.22	2.64	Stick Up
MW 3	29/01/2007	4.470	5.860	3.630	2.23	2.59	Stick Up
MW 4	29/01/2007	Well could not be gauged due to restricted access					
MW 5	29/01/2007	Well could not be gauged due to restricted access					
MW 6	29/01/2007	5.105	5.909	3.699	2.21	2.58	Stick Up
MW 8	29/01/2007	4.990	5.686	3.636	2.05	2.39	Stick Up
MW 9A	29/01/2007	4.850	5.372	4.120	1.25		
MW 9A	29/01/2007	Well was dry when gauged. This well has not been surveyed.					
MW 10	29/01/2007	5.340	7.122	4.902	2.22	2.66	Stick Up
MW 11	29/01/2007	3.665	5.231	3.221	2.01	2.35	Flush Mounted
MW 12	29/01/2007	4.205	5.446	3.386	2.06	2.39	Flush Mounted

Notes:

MW, GW = monitoring wells
ID = identification
m = metres

mbtoc = m below top of casing
mAHD = metres Australian Height Datum
August 2006 Information is included for

Table 2
Summary of Results of Groundwater Sampling Above Adopted Investigation Levels
Bradken Resources, January 30 2007

Analyte	Adopted Investigation Level, Based on SA EPA Water Quality Policy (µg/L)	SA EPA Water Quality Policy Potable Criteria (µg/L)	MW2 (µg/L)	MW3 (µg/L)	MW6 (µg/L)	MW8 (µg/L)	MW9A (µg/L)	MW10 (µg/L)	MW11 (µg/L)	MW12 (µg/L)
Zinc	5	NE	10	4	5	3	NS	3	16	5
Selenium	5	10	20	<LOR	13	40	NS	12	14	3
Molybdenum	10	50	30	20	110	5	NS	20	15	15
Total PAH	0.01	0.01	NA	NA	NA	<LOR	NS	NA	<LOR	24

Notes:

The most protective water criteria has been selected as an adopted IL.

The potable criteria has been included for reference as the most relevant criteria for groundwater.

Only analytes with detections in excess of the adopted IL have been included in this table. Exceedances of the IL are highlighted.

µg/L = micrograms per litre

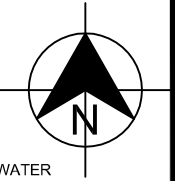
NE = Not Established

NA = Not Analysed

NS = Not Sampled

Figures

**Groundwater Monitoring Assessment January 2007
Bradken Kilburn Foundry
Cromwell Road, Kilburn, SA**

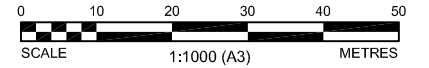


LEGEND

- INFERRED GROUNDWATER FLOW DIRECTION
- GROUNDWATER MONITORING WELL LOCATIONS
- SWL mAHD GROUNDWATER ELEVATION (mAHD)

NOTE:

1. Survey data from URS, 2001.
2. MW9A & MW9B are unsurveyed replacement wells.



NOTE:
ALL LOCATIONS ARE APPROXIMATE.
DIMENSIONS IN METRES.

Coffey Environments Pty Ltd

Rev	Date	Revision Details	Drn
B	16.08.06	ESA ISSUE EDITS	MW
A	01.08.06	ESA ISSUE	GR

coffey environments
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Wayville SA 5034
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Fax: (08) 8443 6499

Client:
BRADKEN RESOURCES

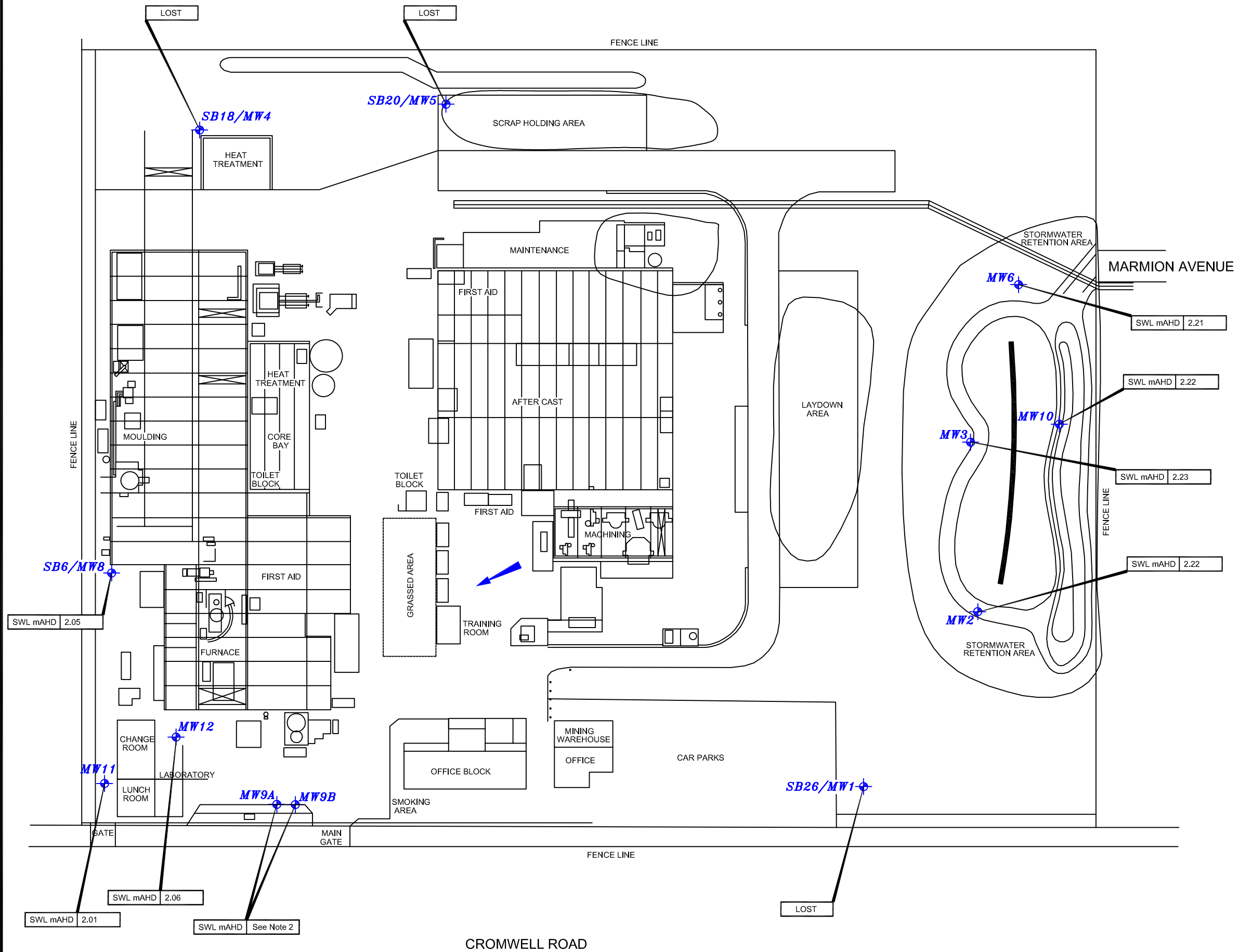
Project:
BRADKEN GROUNDWATER SAMPLING

Location:
CROMWELL ROAD
KILBURN, SOUTH AUSTRALIA

Drawing Title:
**HYDROGEOLOGICAL INFORMATION
(29 JANUARY 2007)**

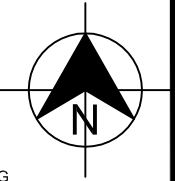
Drawn GR	Signed	Date 01.08.06
Checked	Signed	Date

Project - Drawing No. ENVIWAY00022BA-D01	Figure No. 1	Rev. B
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THIS IS ONE INTERPRETATION ONLY
OTHER INTERPRETATIONS ARE POSSIBLE.

CROMWELL ROAD

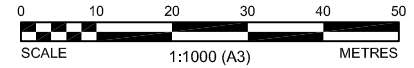


LEGEND

-  GROUNDWATER MONITORING WELL LOCATIONS
-  HISTORICAL GROUNDWATER FLOW INTERPRETATION
-  HISTORICAL GROUNDWATER ELEVATION CONTOUR (mAHD)

NOTE:

1. Survey data from URS, 2001.
2. MW9A & MW9B are unsurveyed replacement wells.



NOTE:
ALL LOCATIONS ARE APPROXIMATE.
DIMENSIONS IN METRES.

Coffey Environments Pty Ltd

Rev	Date	Revision Details	Drn
B	16.08.06	ESA ISSUE EDITS	MW
A	01.08.06	ESA ISSUE	GR

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BRADKEN RESOURCES

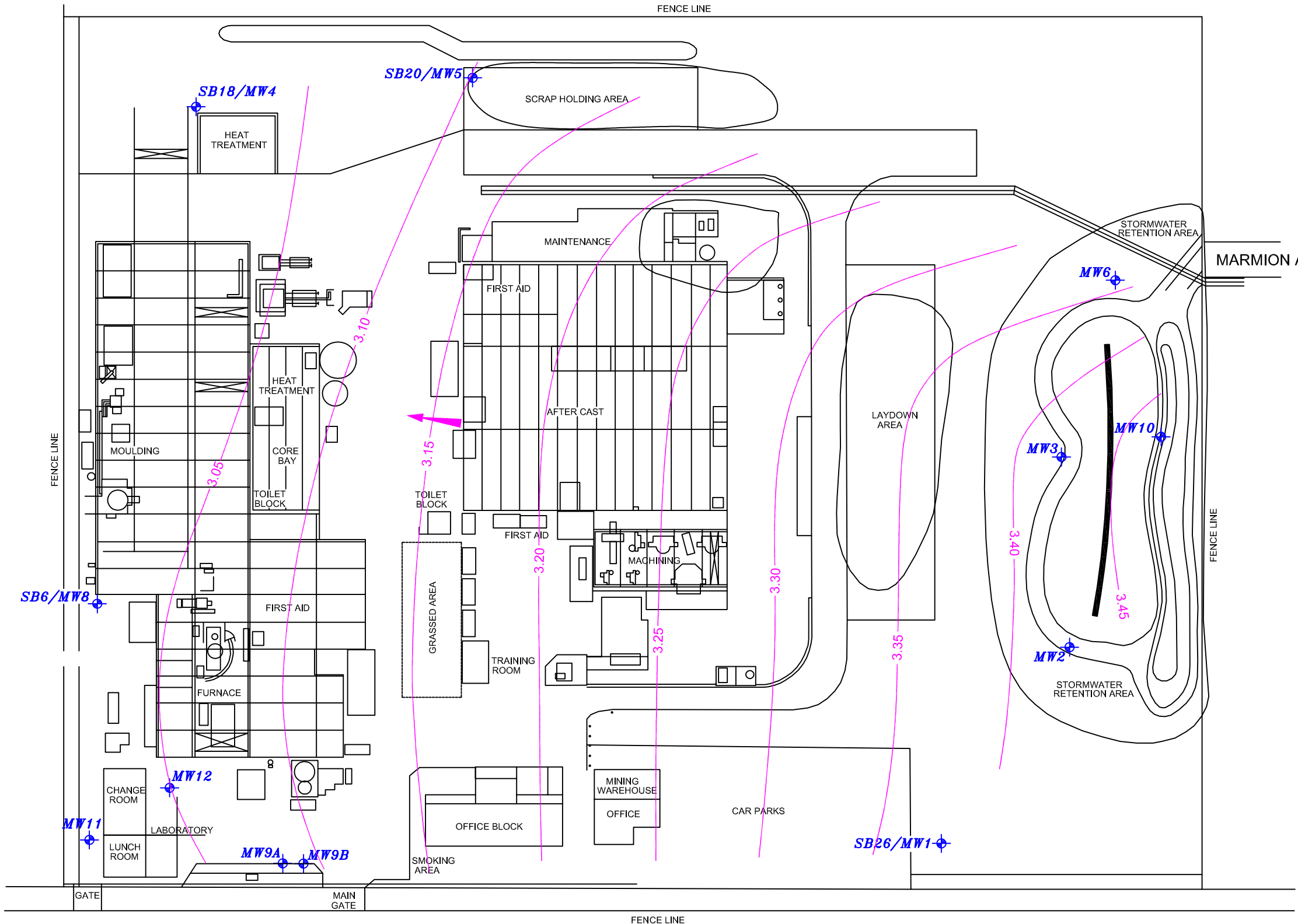
Project:
BRADKEN GROUNDWATER SAMPLING

Location:
CROMWELL ROAD
KILBURN, SOUTH AUSTRALIA

Drawing Title:
**HISTORICAL
HYDROGEOLOGICAL INFORMATION
(URS 2001)**

Drawn GR	Signed	Date 01.08.06
Checked	Signed	Date

Project - Drawing No. ENVIWAY00022BA-D01	Figure No. 2	Rev. B
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THIS IS ONE INTERPRETATION ONLY
OTHER INTERPRETATIONS ARE POSSIBLE.

Appendix A References

**Groundwater Monitoring Assessment January 2007
Bradken Kilburn Foundry
Cromwell Road, Kilburn, SA**

REFERENCES

Adelaide Environmental Consulting (2003) Preliminary Risk Assessment Hydrocarbon Contamination. Bradken Cromwell Road, Kilburn. Report Issued 10 December 2003. Report No: 0555A.

Coffey Environments (2006) Groundwater Monitoring Assessment Bradken Kilburn Foundry Cromwell Road, Kilburn, South Australia Report Date 12 October 2006 Report No: ENVITHEB05076AA_RO2_GW.doc.

MPL (2004) Bore Water Sampling and Analysis. Cromwell Road, Kilburn. Report Issued 12 November 2004. Report No.: 50.0315.01.

NSW EPA (1994): Guidelines for Assessing Service Station-sites. ISBN 0-7310-3712-X.

NEPM (1999) National Environment Protection (Assessment of Contaminated Sites) Measure.

Planning SA (PIRSA) (2006) Guidelines for the preparation of a public Environment Report for the Upgrading and expansion of a Foundry at Cromwell Road, Kilburn. Proposal by Bradken Resources Pty Ltd. Issued June 2006.

Planning SA (PIRSA) (2006) Issues Paper. Proposal for an upgrading and expansion of a Foundry at Cromwell Road, Kilburn. Proposal by Bradken Resources Pty Ltd. Issued April 2006.

South Australian Environment Protection Authority (2003) Environment Protection (Water Quality) Policy and Explanatory Report 2003. ISBN 1-876562-39-0.

URS (2001) Project Resources: Phase II Site Contamination Assessment Adelaide. Report Issued 30th November 2001. Report No: 49306_002_R001-A.DOC.

Appendix B
Laboratory Reports & Chain of Custody
Documentation

**Groundwater Monitoring Assessment January 2007
Bradken Kilburn Foundry
Cromwell Road, Kilburn, SA**

QC Definitions and Acceptance Targets

1.1 Accuracy

Accuracy of QC results (laboratory control samples, matrix spikes and surrogates) is measured by percentage recovery (%R) of known additions. Acceptance targets for laboratory control samples and matrix spikes is generally between 70% and 130% recovery for organics and 80-120% recovery for metals (APHA 1992), however acceptable accuracy for certain methods may exceed these limits (USEPA 1986). Acceptance targets for surrogates are between 80% and 120% recovery for organics.

It should be noted that matrix dependant QC methods (matrix spikes, surrogates) can be affected by the matrix, hence these %R results should only be reviewed qualitatively.

1.2 Duplicates

Precision of analytical techniques is measured by the relative percent difference (RPD) between duplicate results. However, for field duplicates there is no universally accepted method for comparing results. This is mainly due to the high likelihood for heterogeneous analyte distribution within the sample, hence results can only be reviewed qualitatively. Acceptance targets for laboratory duplicates are dependant on matrix type, analyte type and analyte concentrations and are as follows:

- Soil (Organics and metals): 30% for concentrations more than 10 times the LOR and 50% for concentrations less than 10 times the LOR (Standards Australia 1997).
- Groundwater (VOCs, Semivolatiles, OCs, Ops and Herbicides): 20% for concentrations more than 20 times the LOR and 40% for concentrations less than 20 times the LOR (APHA 1992).
- Groundwater (Total Organic Halogens): 15% for concentrations more than 20 times the LOR and 25% for concentrations less than 20 times the LOR (APHA 1992).
- Groundwater (Metals): 10% for concentrations more than 20 times the LOR and 25% for concentrations less than 20 times the LOR (APHA 1992).
- Groundwater (Other Inorganics): 10% for concentrations more than 20 times the LOR and 25% for concentrations less than 20 times the LOR (APHA 1992).

It should also be noted that for concentrations near the LOR, acceptance targets for RPD are difficult to apply as the uncertainty of the concentration can approach, and even equal, the reported concentration (Keith 1991). Accordingly, acceptance targets should be limited to concentrations conservatively above the LOR.

CERTIFICATE OF ANALYSIS

Coffey Environments Pty Ltd SA
Level 1, 2-3 Greenhill Road
Wayville
South Australia 5034
Site: BRADKEN KILBURN GME ENVIWAYV00022AA

Report Number: 203543 Page 1 of 23
Order Number:
Date Received: Feb 1, 2007
Date Sampled: Jan 30, 2007
Date Reported: Feb 13, 2007
Contact: Colin Campbell

Methods

- USEPA 8260B - MGT 350A Volatile Organics by GCMS
- USEPA 6020 Heavy Metals
- USEPA 8270C Phenols
- USEPA 8270C Polycyclic Aromatic Hydrocarbons
- USEPA 8260B - MGT 350A Monocyclic Aromatic Hydrocarbons
- MGT100A-GC Total Recoverable Hydrocarbons
- APHA 4500-Cl Chloride by FIA
- APHA 4500-NH3 Ammonia Nitrogen by FIA
- APHA 4500-NO3 Nitrate Nitrogen by FIA
- APHA 4500-SO4 Sulfate by FIA
- APHA 2320 Alkalinity by Titration

Comments

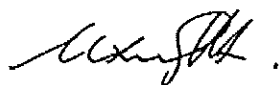
Notes

1. The results in this report supersede any previously corresponded results.
2. All Soil Results are reported on a dry basis.
3. Samples are analysed on an as received basis.

ABBREVIATIONS

mg/kg : milligrams per kilograms, mg/L : milligrams per litre, ppm : parts per million,
LOR : Limit of Reporting
RPD : Relative Percent Difference
CRM : Certified Reference Material
LCS : Laboratory Control Sample

Authorised

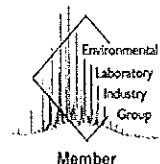


Michael Wright
NATA Signatory
Laboratory Manager



NATA Accredited
Laboratory Number 1261
The tests, calibrations or measurements covered by this document have been performed in accordance with NATA requirements which include the requirements of ISO/IEC 17025 and are traceable to national standards of measurement. This document shall not be reproduced, except in full.

Report Number: 203543





Environmental Consulting Pty. Ltd.

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 Telephone: (03) 9564 7055
 Fax: (03) 9564 7190
 Email: mgt@mgtenv.com.au

Coffey Environments Pty Ltd SA	Client Sample ID		MW 2	MW 10	MW 6	MW 3
Level 1, 2-3 Greenhill Road	Lab Number		07-FE00108	07-FE00109	07-FE00110	07-FE00111
Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
Heavy Metals						
Calcium	0.5	mg/L	3.1	11	2.5	0.9
Magnesium	0.5	mg/L	2.8	15	3.7	1.3
Potassium	0.5	mg/L	9.9	24	11	8.3
Sodium	0.5	mg/L	160	350	400	130
Volatile Organics						
1,1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1,2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2,3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,3,5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (MEK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Propanone (Acetone)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

COMMENTS:



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Level 1, 2-3 Greenhill Road	Lab Number		07-FE00108	07-FE00109	07-FE00110	07-FE00111
Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
Bromoform	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Iodomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Methylene chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl acetate	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl chloride	0.0003	mg/L	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes(ortho,meta and para)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorobenzene (surr.)	1	%	110	100	110	92
4-Bromofluorobenzene (surr.)	1	%	92	88	89	90

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Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
Ammonia(N)	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Chloride	0.01	mg/L	46	300	190	20
Nitrate (N)	0.02	mg/L	0.14	0.02	< 0.02	< 0.02
Sulphate (S)	1	mg/L	18	52	59	9.6
Alkalinity						
Bicarbonate Alkalinity-mg CaCO3/L	10	mg/L	250	310	460	240
Carbonate Alkalinity-mg CaCO3/L	10	mg/L	< 10	< 10	< 10	< 10
Heavy Metals						
Antimony	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	0.001	mg/L	< 0.001	0.002	0.003	< 0.001
Beryllium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	0.003	0.003	< 0.001
Cobalt	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.001	0.002	0.003	0.001
Lead	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Molybdenum	0.005	mg/L	0.030	0.020	0.11	0.020
Nickel	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Selenium	0.001	mg/L	0.020	0.012	0.013	< 0.001
Tin	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Zinc	0.001	mg/L	0.010	0.003	0.005	0.004

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Coffey Environments Pty Ltd SA

	Client Sample ID		MW 11	MW 8	MW 12	QC 1
Level 1, 2-3 Greenhill Road	Lab Number		07-FE00112	07-FE00113	07-FE00114	07-FE00115
Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
Heavy Metals						
Calcium	0.5	mg/L	11	56	20	20
Magnesium	0.5	mg/L	19	85	33	33
Potassium	0.5	mg/L	25	54	16	16
Sodium	0.5	mg/L	750	820	320	320
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	0.02	mg/L	< 0.02	< 0.02	0.26	0.32
TRH C10-C14 Fraction by GC	0.05	mg/L	< 0.05	< 0.05	0.47	0.52
TRH C15-C28 Fraction by GC	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 Fraction by GC	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Monocyclic Aromatic Hydrocarbons						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	0.10	0.16
Xylenes(ortho.meta and para)	0.001	mg/L	< 0.001	< 0.001	0.043	0.049
Fluorobenzene (surr.)	1	%	88	88	100	110
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	0.009	0.010

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Coffey Environments Pty Ltd SA	Client Sample ID		MW 11	MW 8	MW 12	QC 1
Level 1, 2-3 Greenhill Road	Lab Number		07-FE00112	07-FE00113	07-FE00114	07-FE00115
Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH	0.016	mg/L	< 0.016	< 0.016	0.024	0.025
Chrysene-d12 (surr.)	1	%	130	130	150	130
2-Fluorobiphenyl (surr.)	1	%	130	120	140	140
Phenols						
2-Chlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Methylphenol (o-Cresol)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Nitrophenol	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
2,4-Dichlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2,4-Dimethylphenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2,4,6-Trichlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2,6-Dichlorophenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
3&4-Methylphenol (m&p-Cresol)	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
4-Chloro-3-methylphenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pentachlorophenol	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Phenol	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenol-d6 (surr.)	1	%	60	65	63	75
Volatile Organics						
1,1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,1,2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,1,2,2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

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Coffey Environments Pty Ltd SA	Client Sample ID		MW 11	MW 8	MW 12	QC 1
Level 1, 2-3 Greenhill Road	Lab Number		07-FE00112	07-FE00113	07-FE00114	07-FE00115
Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
1,2,3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,2,4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	0.039	0.043
1,3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,3,5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
1,4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Butanone (MEK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Propanone (Acetone)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Allyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromoform	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloroform	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
cis-1,3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibromomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dichlorodifluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Iodomethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

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Coffey Environments Pty Ltd SA	Client Sample ID		MW 11	MW 8	MW 12	QC 1
Level 1, 2-3 Greenhill Road	Lab Number		07-FE00112	07-FE00113	07-FE00114	07-FE00115
Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001	0.039	0.042
Methylene chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Styrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
trans-1,3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichloroethene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Trichlorofluoromethane	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl acetate	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Vinyl chloride	0.0003	mg/L	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	0.10	0.16
Xylenes(ortho,meta and para)	0.001	mg/L	< 0.001	< 0.001	0.043	0.049
Fluorobenzene (surr.)	1	%	88	88	100	110
4-Bromofluorobenzene (surr.)	1	%	90	94	96	93
Ammonia(N)	0.01	mg/L	< 0.01	< 0.01	0.09	0.13
Chloride	0.01	mg/L	420	850	210	200
Nitrate (N)	0.02	mg/L	7.5	8.6	< 0.02	< 0.02
Sulphate (S)	1	mg/L	100	160	18	15
Alkalinity						
Bicarbonate Alkalinity-mg CaCO3/L	10	mg/L	780	700	580	600
Carbonate Alkalinity-mg CaCO3/L	10	mg/L	< 10	< 10	< 10	< 10
Heavy Metals						
Antimony	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	0.001	mg/L	< 0.001	0.004	0.002	0.003
Beryllium	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium	0.001	mg/L	0.003	0.012	0.004	0.004

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Coffey Environments Pty Ltd SA	Client Sample ID		MW 11	MW 8	MW 12	QC 1
Level 1, 2-3 Greenhill Road	Lab Number		07-FE00112	07-FE00113	07-FE00114	07-FE00115
Wayville	Matrix		Water	Water	Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units				
Cobalt	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper	0.001	mg/L	0.003	0.004	0.001	0.001
Lead	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Molybdenum	0.005	mg/L	0.015	0.005	0.015	0.015
Nickel	0.001	mg/L	< 0.001	0.003	0.002	0.002
Selenium	0.001	mg/L	0.014	0.040	0.003	0.004
Tin	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Zinc	0.001	mg/L	0.016	0.003	0.005	0.005

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Coffey Environments Pty Ltd SA

	Client Sample ID		QC 2	QC 3
Level 1, 2-3 Greenhill Road	Lab Number		07-FE00116	07-FE00117
Wayville	Matrix		Water	Water
South Australia 5034	Sample Date		Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units		
Heavy Metals				
Calcium	0.5	mg/L	< 0.5	-
Magnesium	0.5	mg/L	< 0.5	-
Potassium	0.5	mg/L	< 0.5	-
Sodium	0.5	mg/L	< 0.5	-
Total Recoverable Hydrocarbons				
TRH C6-C9 Fraction by GC	0.02	mg/L	< 0.02	< 0.02
TRH C10-C14 Fraction by GC	0.05	mg/L	< 0.05	-
TRH C15-C28 Fraction by GC	0.1	mg/L	< 0.1	-
TRH C29-C36 Fraction by GC	0.1	mg/L	< 0.1	-
Monocyclic Aromatic Hydrocarbons				
Benzene	0.001	mg/L	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001
Xylenes(ortho.meta and para)	0.001	mg/L	< 0.001	< 0.001
Fluorobenzene (surr.)	1	%	110	97
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.001	mg/L	< 0.001	-
Acenaphthylene	0.001	mg/L	< 0.001	-
Anthracene	0.001	mg/L	< 0.001	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-
Benzo(b)fluoranthene	0.001	mg/L	< 0.001	-
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-
Chrysene	0.001	mg/L	< 0.001	-
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	-
Fluoranthene	0.001	mg/L	< 0.001	-
Fluorene	0.001	mg/L	< 0.001	-
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001	-
Naphthalene	0.001	mg/L	< 0.001	-

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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID		QC 2	QC 3
	Lab Number		07-FE00116	07-FE00117
	Matrix		Water	Water
	Sample Date		Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units		
Phenanthrene	0.001	mg/L	< 0.001	-
Pyrene	0.001	mg/L	< 0.001	-
Total PAH	0.016	mg/L	< 0.016	-
Chrysene-d12 (surr.)	1	%	130	-
2-Fluorobiphenyl (surr.)	1	%	150	-
Phenols				
2-Chlorophenol	0.001	mg/L	< 0.001	-
2-Methylphenol (o-Cresol)	0.001	mg/L	< 0.001	-
2-Nitrophenol	0.005	mg/L	< 0.005	-
2,4-Dichlorophenol	0.001	mg/L	< 0.001	-
2,4-Dimethylphenol	0.001	mg/L	< 0.001	-
2,4,6-Trichlorophenol	0.001	mg/L	< 0.001	-
2,6-Dichlorophenol	0.001	mg/L	< 0.001	-
3&4-Methylphenol (m&p-Cresol)	0.002	mg/L	< 0.002	-
4-Chloro-3-methylphenol	0.001	mg/L	< 0.001	-
Pentachlorophenol	0.005	mg/L	< 0.005	-
Phenol	0.001	mg/L	< 0.001	-
Phenol-d6 (surr.)	1	%	64	-
Volatile Organics				
1,1-Dichloroethane	0.001	mg/L	< 0.001	-
1,1-Dichloroethene	0.001	mg/L	< 0.001	-
1,1,1-Trichloroethane	0.001	mg/L	< 0.001	-
1,1,1,2-Tetrachloroethane	0.001	mg/L	< 0.001	-
1,1,2-Trichloroethane	0.001	mg/L	< 0.001	-
1,1,2,2-Tetrachloroethane	0.001	mg/L	< 0.001	-
1,2-Dibromoethane	0.001	mg/L	< 0.001	-
1,2-Dichlorobenzene	0.001	mg/L	< 0.001	-
1,2-Dichloroethane	0.001	mg/L	< 0.001	-
1,2-Dichloropropane	0.001	mg/L	< 0.001	-

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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID		QC 2	QC 3
	Lab Number		07-FE00116	07-FE00117
	Matrix		Water	Water
	Sample Date		Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units		
1,2,3-Trichloropropane	0.001	mg/L	< 0.001	-
1,2,4-Trimethylbenzene	0.001	mg/L	< 0.001	-
1,3-Dichlorobenzene	0.001	mg/L	< 0.001	-
1,3-Dichloropropane	0.001	mg/L	< 0.001	-
1,3,5-Trimethylbenzene	0.001	mg/L	< 0.001	-
1,4-Dichlorobenzene	0.001	mg/L	< 0.001	-
2-Butanone (MEK)	0.001	mg/L	< 0.001	-
2-Propanone (Acetone)	0.001	mg/L	< 0.001	-
4-Chlorotoluene	0.001	mg/L	< 0.001	-
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001	-
Allyl chloride	0.001	mg/L	< 0.001	-
Benzene	0.001	mg/L	< 0.001	-
Bromobenzene	0.001	mg/L	< 0.001	-
Bromochloromethane	0.001	mg/L	< 0.001	-
Bromodichloromethane	0.001	mg/L	< 0.001	-
Bromoform	0.001	mg/L	< 0.001	-
Bromomethane	0.001	mg/L	< 0.001	-
Carbon disulfide	0.001	mg/L	< 0.001	-
Carbon Tetrachloride	0.001	mg/L	< 0.001	-
Chlorobenzene	0.001	mg/L	< 0.001	-
Chloroethane	0.001	mg/L	< 0.001	-
Chloroform	0.001	mg/L	< 0.005	-
Chloromethane	0.001	mg/L	< 0.001	-
cis-1,2-Dichloroethene	0.001	mg/L	< 0.001	-
cis-1,3-Dichloropropene	0.001	mg/L	< 0.001	-
Dibromochloromethane	0.001	mg/L	< 0.001	-
Dibromomethane	0.001	mg/L	< 0.001	-
Dichlorodifluoromethane	0.001	mg/L	< 0.001	-
Iodomethane	0.001	mg/L	< 0.001	-

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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID		QC 2	QC 3
	Lab Number		07-FE00116	07-FE00117
	Matrix		Water	Water
	Sample Date		Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units		
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	-
Methylene chloride	0.001	mg/L	< 0.001	-
Styrene	0.001	mg/L	< 0.001	-
Tetrachloroethene	0.001	mg/L	< 0.001	-
trans-1,2-Dichloroethene	0.001	mg/L	< 0.001	-
trans-1,3-Dichloropropene	0.001	mg/L	< 0.001	-
Trichloroethene	0.001	mg/L	< 0.001	-
Trichlorofluoromethane	0.001	mg/L	< 0.001	-
Vinyl acetate	0.001	mg/L	< 0.001	-
Vinyl chloride	0.0003	mg/L	< 0.0003	-
Toluene	0.001	mg/L	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	-
Xylenes(ortho.meta and para)	0.001	mg/L	< 0.001	-
Fluorobenzene (surr.)	1	%	110	-
4-Bromofluorobenzene (surr.)	1	%	89	-
Ammonia(N)	0.01	mg/L	< 0.01	-
Chloride	0.01	mg/L	< 0.01	-
Nitrate (N)	0.02	mg/L	< 0.02	-
Sulphate (S)	1	mg/L	< 1	-
Alkalinity				
Bicarbonate Alkalinity-mg CaCO3/L	10	mg/L	< 10	-
Carbonate Alkalinity-mg CaCO3/L	10	mg/L	< 10	-
Heavy Metals				
Antimony	0.005	mg/L	< 0.005	< 0.005
Arsenic	0.001	mg/L	< 0.001	< 0.001
Beryllium	0.001	mg/L	< 0.001	< 0.001
Cadmium	0.0002	mg/L	< 0.0002	< 0.0002
Chromium	0.001	mg/L	< 0.001	< 0.001

COMMENTS:



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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID		QC 2	QC 3
	Lab Number		07-FE00116	07-FE00117
	Matrix		Water	Water
	Sample Date		Jan 30, 2007	Jan 30, 2007
Analysis Type	LOR	Units		
Cobalt	0.001	mg/L	< 0.001	< 0.001
Copper	0.001	mg/L	< 0.001	< 0.001
Lead	0.001	mg/L	< 0.001	< 0.001
Mercury	0.0001	mg/L	< 0.0001	< 0.0001
Molybdenum	0.005	mg/L	< 0.005	< 0.005
Nickel	0.001	mg/L	< 0.001	< 0.001
Selenium	0.001	mg/L	< 0.001	< 0.001
Tin	0.005	mg/L	< 0.005	< 0.005
Zinc	0.001	mg/L	< 0.001	< 0.001

COMMENTS:



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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID	MW 2	MW 2	MW 2	MW 2	Method blank
	Lab Number	07-FE00108	07-FE00108	07-FE00108	07-FE00108	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	
	Matrix	Water	Water	Water	Water	Water
	Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units			% RPD	% Recovery	mg/L
Ammonia(N)		-	-	14	98	< 0.01
Nitrate (N)		-	-	12	-	< 0.02
Heavy Metals						
Antimony		< 0.005	< 0.005	<1	86	< 0.005
Arsenic		< 0.001	< 0.001	<1	115	< 0.001
Beryllium		< 0.001	< 0.001	<1	101	< 0.001
Cadmium		< 0.0002	< 0.0002	<1	89	< 0.0002
Calcium		-	-	0.40	101	< 0.5
Chromium		< 0.001	< 0.001	<1	94	< 0.001
Cobalt		< 0.001	< 0.001	<1	96	< 0.001
Copper		0.001	0.002	<1	90	< 0.001
Lead		< 0.001	< 0.001	<1	89	< 0.001
Magnesium		-	-	0.50	102	< 0.5
Mercury		-	-	-	-	< 0.0001
Molybdenum		0.030	0.031	0.84	90	< 0.005
Nickel		< 0.001	< 0.001	<1	88	< 0.001
Potassium		-	-	2.8	120	< 0.5
Selenium		-	-	<1	96	< 0.001
Sodium		-	-	0.40	99	< 0.5
Tin		-	-	<1	71	< 0.005
Zinc		0.010	0.010	0.37	91	< 0.001
Volatile Organics						
1,1-Dichloroethane		< 0.001	< 0.001	<1	-	-
1,1-Dichloroethene		< 0.001	< 0.001	<1	-	-
1,1,1-Trichloroethane		< 0.001	< 0.001	<1	115	-
1,1,1,2-Tetrachloroethane		< 0.001	< 0.001	<1	-	-
1,1,2-Trichloroethane		< 0.001	< 0.001	<1	-	-
1,1,2,2-Tetrachloroethane		< 0.001	< 0.001	<1	-	-
1,2-Dibromoethane		< 0.001	< 0.001	<1	-	-

COMMENTS:

Coffey Environments Pty Ltd SA
 Level 1, 2-3 Greenhill Road
 Wayville
 South Australia 5034

Client Sample	MW 2	MW 2	MW 2	MW 2
Lab Number	07-FE00108	07-FE00108	07-FE00108	07-FE00108
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
Matrix	Water	Water	Water	Water
Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units		% RPD	% Recovery
Volatile Organics				
1,2-Dichlorobenzene	< 0.001	< 0.001	<1	102
1,2-Dichloroethane	< 0.001	< 0.001	<1	91
1,2-Dichloropropane	< 0.001	< 0.001	<1	-
1,2,3-Trichloropropane	< 0.001	< 0.001	<1	-
1,2,4-Trimethylbenzene	< 0.001	< 0.001	<1	-
1,3-Dichlorobenzene	< 0.001	< 0.001	<1	87
1,3-Dichloropropane	< 0.001	< 0.001	<1	-
1,3,5-Trimethylbenzene	< 0.001	< 0.001	<1	-
1,4-Dichlorobenzene	< 0.001	< 0.001	<1	71
2-Butanone (MEK)	< 0.001	< 0.001	<1	-
2-Propanone (Acetone)	< 0.001	< 0.001	<1	-
4-Chlorotoluene	< 0.001	< 0.001	<1	-
4-Methyl-2-pentanone (MIBK)	< 0.001	< 0.001	<1	-
Allyl chloride	< 0.001	< 0.001	<1	-
Benzene	< 0.001	< 0.001	<1	97
Bromobenzene	< 0.001	< 0.001	<1	-
Bromochloromethane	< 0.001	< 0.001	<1	-
Bromodichloromethane	< 0.001	< 0.001	<1	-
Bromoform	< 0.001	< 0.001	<1	-
Bromomethane	< 0.001	< 0.001	<1	-
Carbon disulfide	< 0.001	< 0.001	<1	-
Carbon Tetrachloride	< 0.001	< 0.001	<1	112
Chlorobenzene	< 0.001	< 0.001	<1	-
Chloroethane	< 0.001	< 0.001	<1	-
Chloroform	< 0.001	< 0.001	<1	-
Chloromethane	< 0.001	< 0.001	<1	-
cis-1,2-Dichloroethene	< 0.001	< 0.001	<1	-
cis-1,3-Dichloropropene	< 0.001	< 0.001	<1	-

COMMENTS:



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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample	MW 2	MW 2	MW 2	MW 2
	Lab Number	07-FE00108	07-FE00108	07-FE00108	07-FE00108
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
	Matrix	Water	Water	Water	Water
	Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units			% RPD	% Recovery
Volatile Organics					
Dibromochloromethane		< 0.001	< 0.001	<1	-
Dibromomethane		< 0.001	< 0.001	<1	-
Dichlorodifluoromethane		< 0.001	< 0.001	<1	-
Iodomethane		< 0.001	< 0.001	<1	-
Isopropyl benzene (Cumene)		< 0.001	< 0.001	<1	-
Methylene chloride		< 0.001	< 0.001	<1	-
Styrene		< 0.001	< 0.001	<1	-
Tetrachloroethene		< 0.001	< 0.001	<1	-
trans-1,2-Dichloroethene		< 0.001	< 0.001	<1	-
trans-1,3-Dichloropropene		< 0.001	< 0.001	<1	-
Trichloroethene		< 0.001	< 0.001	<1	-
Trichlorofluoromethane		< 0.001	< 0.001	<1	-
Vinyl acetate		< 0.001	< 0.001	<1	-
Vinyl chloride		< 0.0003	< 0.0003	<1	-
Toluene		< 0.001	< 0.001	<1	92
Ethylbenzene		< 0.001	< 0.001	<1	95
Xylenes(ortho,meta and para)		< 0.001	< 0.001	<1	93
Fluorobenzene (surr.)		110	110	-	100
4-Bromofluorobenzene (surr.)		92	91	-	89

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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID	MW 10	MW 10	MW 10	MW 10	Method blank
	Lab Number	07-FE00109	07-FE00109	07-FE00109	07-FE00109	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	
	Matrix	Water	Water	Water	Water	Water
	Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
	Analysis Type	Units			% RPD	% Recovery
Alkalinity						
Bicarbonate Alkalinity-mg CaCO3/L		310	310	-	-	< 10
Carbonate Alkalinity-mg CaCO3/L		< 10	< 10	-	-	< 10

COMMENTS:



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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID	MW 6	MW 6	MW 6	MW 6	Method blank
	Lab Number	07-FE00110	07-FE00110	07-FE00110	07-FE00110	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	
	Matrix	Water	Water	Water	Water	Water
	Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units			% RPD	% Recovery	mg/L
Sulphate (S)		59	59	0.14	124	< 1

COMMENTS:



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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID	MW 12	MW 12	MW 12	MW 12	Method blank
	Lab Number	07-FE00114	07-FE00114	07-FE00114	07-FE00114	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	
	Matrix	Water	Water	Water	Water	Water
	Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units			% RPD	% Recovery	mg/L
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC		-	-	<1	-	< 0.02
TRH C10-C14 Fraction by GC		0.47	0.51	7.0	113	< 0.05
TRH C15-C28 Fraction by GC		< 0.1	< 0.1	<1	-	< 0.1
TRH C29-C36 Fraction by GC		< 0.1	< 0.1	<1	-	< 0.1
Polycyclic Aromatic Hydrocarbons						
Acenaphthene		< 0.001	< 0.001	<1	98	< 0.001
Acenaphthylene		< 0.001	< 0.001	<1	108	< 0.001
Anthracene		< 0.001	< 0.001	<1	122	< 0.001
Benz(a)anthracene		< 0.001	< 0.001	<1	106	< 0.001
Benzo(a)pyrene		< 0.001	< 0.001	<1	121	< 0.001
Benzo(b)fluoranthene		< 0.001	< 0.001	<1	106	< 0.001
Benzo(g,h,i)perylene		< 0.001	< 0.001	<1	117	< 0.001
Benzo(k)fluoranthene		< 0.001	< 0.001	<1	106	< 0.001
Chrysene		< 0.001	< 0.001	<1	90	< 0.001
Dibenz(a,h)anthracene		< 0.001	< 0.001	<1	85	< 0.001
Fluoranthene		< 0.001	< 0.001	<1	122	< 0.001
Fluorene		< 0.001	< 0.001	<1	105	< 0.001
Indeno(1,2,3-cd)pyrene		< 0.001	< 0.001	<1	118	< 0.001
Naphthalene		0.009	0.009	6.8	102	< 0.001
Phenanthrene		< 0.001	< 0.001	<1	125	< 0.001
Pyrene		< 0.001	< 0.001	<1	105	< 0.001
Total PAH		-	-	<1	-	< 0.016
Chrysene-d12 (surr.)		150	-	-	102	91
2-Fluorobiphenyl (surr.)		140	140	-	77	90
Phenols						
2-Chlorophenol		< 0.001	< 0.001	<1	121	< 0.001
2-Methylphenol (o-Cresol)		< 0.001	< 0.001	<1	115	< 0.001
2-Nitrophenol		< 0.005	< 0.005	<1	-	< 0.005

COMMENTS:



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 Wayville
 South Australia 5034

Client Sample	MW 12	MW 12	MW 12	MW 12	Method blank
Lab Number	07-FE00114	07-FE00114	07-FE00114	07-FE00114	Batch
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	
Matrix	Water	Water	Water	Water	Water
Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units		% RPD	% Recovery	mg/L
Phenols					
2,4-Dichlorophenol	< 0.001	< 0.001	<1	98	< 0.001
2,4-Dimethylphenol	< 0.001	< 0.001	<1	110	< 0.001
2,4,6-Trichlorophenol	< 0.001	< 0.001	<1	116	< 0.001
2,6-Dichlorophenol	< 0.001	< 0.001	<1	120	< 0.001
3&4-Methylphenol (m&p-Cresol)	< 0.002	< 0.002	<1	113	< 0.002
4-Chloro-3-methylphenol	< 0.001	< 0.001	<1	98	< 0.001
Pentachlorophenol	< 0.005	< 0.005	<1	-	< 0.005
Phenol	< 0.001	< 0.001	<1	121	< 0.001
Phenol-d6 (surr.)	63	60	-	116	120
Volatile Organics					

COMMENTS:



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Coffey Environments Pty Ltd SA Level 1, 2-3 Greenhill Road Wayville South Australia 5034	Client Sample ID	QC 2	QC 2	QC 2	QC 2	Method blank
	Lab Number	07-FE00116	07-FE00116	07-FE00116	07-FE00116	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	
	Matrix	Water	Water	Water	Water	Water
	Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units			% RPD	% Recovery	mg/L
Chloride		< 0.01	< 0.01	<1	-	-
Polycyclic Aromatic Hydrocarbons						
Volatile Organics						
1,1-Dichloroethane		< 0.001	< 0.001	<1	-	< 0.001
1,1-Dichloroethene		< 0.001	< 0.001	<1	-	< 0.001
1,1,1-Trichloroethane		< 0.001	< 0.001	<1	115	< 0.001
1,1,1,2-Tetrachloroethane		< 0.001	< 0.001	<1	-	< 0.001
1,1,2-Trichloroethane		< 0.001	< 0.001	<1	-	< 0.001
1,1,2,2-Tetrachloroethane		< 0.001	< 0.001	<1	-	< 0.001
1,2-Dibromoethane		< 0.001	< 0.001	<1	-	< 0.001
1,2-Dichlorobenzene		< 0.001	< 0.001	<1	102	< 0.001
1,2-Dichloroethane		< 0.001	< 0.001	<1	91	< 0.001
1,2-Dichloropropane		< 0.001	< 0.001	<1	-	< 0.001
1,2,3-Trichloropropane		< 0.001	< 0.001	<1	-	< 0.001
1,2,4-Trimethylbenzene		< 0.001	< 0.001	<1	-	< 0.001
1,3-Dichlorobenzene		< 0.001	< 0.001	<1	-	< 0.001
1,3-Dichloropropane		< 0.001	< 0.001	<1	-	< 0.001
1,3,5-Trimethylbenzene		< 0.001	< 0.001	<1	-	< 0.001
1,4-Dichlorobenzene		< 0.001	< 0.001	<1	-	< 0.001
2-Butanone (MEK)		< 0.001	< 0.001	<1	-	< 0.001
2-Propanone (Acetone)		< 0.001	< 0.001	<1	-	< 0.001
4-Chlorotoluene		< 0.001	< 0.001	<1	-	< 0.001
4-Methyl-2-pentanone (MIBK)		< 0.001	< 0.001	<1	-	< 0.001
Allyl chloride		< 0.001	< 0.001	<1	-	< 0.001
Benzene		< 0.001	< 0.001	<1	97	< 0.001
Bromobenzene		< 0.001	< 0.001	<1	-	< 0.001
Bromochloromethane		< 0.001	< 0.001	<1	-	< 0.001
Bromodichloromethane		< 0.001	< 0.001	<1	-	< 0.001
Bromoform		< 0.001	< 0.001	<1	-	< 0.001

COMMENTS:



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Client Sample	QC 2	QC 2	QC 2	QC 2	Method blank
Lab Number	07-FE00116	07-FE00116	07-FE00116	07-FE00116	Batch
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	
Matrix	Water	Water	Water	Water	Water
Sample Date	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007	Jan 30, 2007
Analysis Type	Units		% RPD	% Recovery	mg/L
Volatile Organics					
Bromomethane	< 0.001	< 0.001	<1	-	< 0.001
Carbon disulfide	< 0.001	< 0.001	<1	-	< 0.001
Carbon Tetrachloride	< 0.001	< 0.001	<1	112	< 0.001
Chlorobenzene	< 0.001	< 0.001	<1	-	< 0.001
Chloroethane	< 0.001	< 0.001	<1	-	< 0.001
Chloroform	< 0.005	< 0.005	<1	-	< 0.001
Chloromethane	< 0.001	< 0.001	<1	-	< 0.001
cis-1,2-Dichloroethene	< 0.001	< 0.001	<1	-	< 0.001
cis-1,3-Dichloropropene	< 0.001	< 0.001	<1	-	< 0.001
Dibromochloromethane	< 0.001	< 0.001	<1	-	< 0.001
Dibromomethane	< 0.001	< 0.001	<1	-	< 0.001
Dichlorodifluoromethane	< 0.001	< 0.001	<1	-	< 0.001
Iodomethane	< 0.001	< 0.001	<1	-	< 0.001
Isopropyl benzene (Cumene)	< 0.001	< 0.001	<1	-	< 0.001
Methylene chloride	< 0.001	< 0.001	<1	-	< 0.001
Styrene	< 0.001	< 0.001	<1	-	< 0.001
Tetrachloroethene	< 0.001	< 0.001	<1	-	< 0.001
trans-1,2-Dichloroethene	< 0.001	< 0.001	<1	-	< 0.001
trans-1,3-Dichloropropene	< 0.001	< 0.001	<1	-	< 0.001
Trichloroethene	< 0.001	< 0.001	<1	-	< 0.001
Trichlorofluoromethane	< 0.001	< 0.001	<1	-	< 0.001
Vinyl acetate	< 0.001	< 0.001	<1	-	< 0.001
Vinyl chloride	< 0.0003	< 0.0003	<1	-	< 0.0003
Toluene	< 0.001	< 0.001	<1	92	< 0.001
Ethylbenzene	< 0.001	< 0.001	<1	95	< 0.001
Xylenes(ortho.meta and para)	< 0.001	< 0.001	<1	93	< 0.001
Fluorobenzene (surr.)	110	100	-	100	110
4-Bromofluorobenzene (surr.)	89	90	-	89	93

COMMENTS:

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

60991



- Adelaide: Tel (08) 7221 3500 Fax (08) 8172 1968
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Suite 2, 31-33 Tower Road, New Town TAS 7008
- Melbourne: Tel (03) 9473 1400 Fax (03) 9473 1450
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- Perth: Tel (08) 9355 7100 Fax (08) 9355 7157
89-91 Burswood Road, Burswood WA 6100
- Sydney: Tel: (02) 9502 4844 Fax (02) 9502 2105
17 Forrester Street, Kingsgrove NSW 2208
- Other:

Project No: ENVIRWAYV 00032AA Task No: _____
 Project Name: BRADSHAW KILDRUP GME Laboratory: MGT
 Samplers Name: GREG GUERREIRA Project Manager: COLIN CAMPBELL
 Special Instructions: PLS PAY BACK COLE UPON RECEIPT. WORK ON PLS CALL
 OFFICE IF ANY PROBLEMS MAY ARISE.

Analysis Request Section

Lab. No.	Sample ID	Sample Location	Sample Depth	Sample Date	Time	Matrix (Soil ... etc)	Container Type & Preservative*	T-A-T (Specify)	Analysis Request Section										NOTES	
									TPH	BTEX	METALS (Specify)	PAH's (Specify)	PHENOLS (Specify)	OC's (OP's)	YPH (OP's)	CATIONS (Cu-Cr)	ANIONS	VOC'S		OTHER
	MW2		-	30/1/07	AM	WATER	4xV, 2xP	STD.	/	/	/	/	/	/	/	/	/	/	/	LIMITED SAMPLE
	MW10		-	30/1/07	AM	WATER	4xV, 1xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	LIMITED SAMPLE
	MW6		-	30/1/07	PM	WATER	4xV, 2xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	
	MW3		-	30/1/07	PM	WATER	4xV, 2xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	
	MW11		-	30/1/07	PM	WATER	4xV, 2xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	LIMITED SAMPLE
	MW8		-	30/1/07	PM	WATER	4xV, 1xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	
	MW12		-	30/1/07	PM	WATER	4xV, 2xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	
	QC1		-	30/1/07	PM	WATER	4xV, 2xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	
	QC2		-	30/1/07	PM	WATER	4xV, 2xG, 2xP		/	/	/	/	/	/	/	/	/	/	/	
	QC3		-	30/1/07	PM	WATER	4xV, 1xP		/	/	/	/	/	/	/	/	/	/	/	
	QC4		-	30/1/07	PM	WATER	4xV, 1xP		/	/	/	/	/	/	/	/	/	/	/	

RELINQUISHED BY:		RECEIVED BY:	
Signature:	Date: 31/1/07	Signature:	Date: 01-02-07
Company: Coffey environments	Time: 4:00 PM	Company: Robert C	Time:
Signature:	Date:	Signature:	Date:
Company:	Time:	Company:	Time:

Sample Receipt Advice: (Lab Use Only)

All Samples Received in Good Condition ...

All Documentation is in Proper Order

Samples Received Properly Chilled

Lab. Ref/Batch No. 203543

* Container Type & Preservation Codes: P - Plastic, G - Solvent Washed Acid Rinsed Glass Bottle, V - Vial, N - Nitric Acid Preserved
 C - Hydrochloric Acid Preserved, S - Sulphuric Acid Preserved, I - Ice

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