

19 September 2008

Baron Holdings
1 Ryrie Street
Michelago, NSW

Attention: Robin Spratt

Dear Robin,

**RE: Phase 1 Environmental Site Assessment, United Service Station, 1 Ryrie Street,
Michelago, NSW**

Coffey Environments is please to present the Phase 1 Environmental Site Assessment for United Service Station, 1 Ryrie Street, Michelago, NSW. Your attention is drawn to the enclosed sheet entitled *"Important Information About Your Coffey Environmental Report"*, which should be read in conjunction with this report.

Please do not hesitate to contact the undersigned on (02) 6248 7154 should you have any questions regarding this report.

For and on behalf of Coffey Environments Pty Ltd



Chris Gunton
Project Geologist / Project Manager

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CONTENTS

LIST OF ATTACHMENTS	I
ABBREVIATIONS	II
EXECUTIVE SUMMARY	1
1 INTRODUCTION	2
1.1 Objectives	2
1.2 Scope of Works	2
1.2.1 Site History Review	2
1.2.2 Data Assessment and Reporting	3
2 SITE CHARACTERISATION	4
2.1 Site Ownership and Land Use	4
2.2 Geology and Hydrogeology	4
2.2.1 Geology	4
2.2.2 Hydrogeology	4
2.3 Topography and Drainage	4
2.4 Surrounding Land Use	5
2.5 Site Observations	5
2.6 Site History	6
2.6.1 Aerial Photographs	6
2.7 Land Title Search	7
2.8 Government Record Searches	8
2.8.1 NSW WorkCover	8
2.8.2 NSW Environment Protection Authority	8
2.8.3 Cooma-Monaro Shire Council	8
3 POTENTIAL AREAS AND CHEMICALS OF ENVIRONMENTAL CONCERN	11
3.1 On Site Sources of Contamination and Potential Contaminants of Concern	11

CONTENTS

3.2	Preferential Pathways and Contaminant Migration	11
3.3	Potential Off Site Sources of Contamination	11
4	SUMMARY AND CONCLUSION	12
5	RECOMMENDATIONS	13
6	LIMITATIONS	14
7	REFERENCES	15

LIST OF ATTACHMENTS

Tables In Text

- Table A: Review of Aerial Photographs
Table B: Summary of Historical Land Use

Figures

- Figure 1: Site Location Plan
Figure 2: Detailed Site Plan

Appendices

- Appendix A: Aerial Photographs
Appendix B: Land Title Search Results
Appendix C: NSW Groundwater Works Database Search Results
Appendix D: NSW EPA Contaminated Land Search Results
Appendix E: Cooma-Monaro Shire Council Section 149 Planning Certificate
Appendix F: Lease Documentation
Appendix G: NSW WorkCover Records

ABBREVIATIONS

AEC	Area of Environmental Concern
AHD	Australian Height Datum
bgs	below ground surface
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
ESA	Environmental Site Assessment
L/sec	Litres per second
mg/L	milligrams per litre
NSW EPA	Environment Protection Authority of New South Wales
OCP	Organochlorine Pesticide
OPP	Organophosphorous Pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PVC	Polyvinyl Chloride
SWL	Static Water Level
TDS	Total Dissolved Solid
TPH	Total Petroleum Hydrocarbon
ULP	Unleaded Petrol
UST	Underground Storage Tank
VHC	Volatile Halogenated Compound
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

Coffey Environments Pty Ltd was commissioned by Mr Robin Spratt of Baron Holdings on 23 July 2008 to undertake a Phase 1 Environmental Site Assessment (ESA) of the site located at the corner of the Monaro Highway and Ryrie Street, Michelago, NSW.

Your attention is drawn to the enclosed sheet titled '*Important Information About Your Coffey Environmental Report*', which should be read in conjunction with this report.

It is understood that the National Australia Bank requested a Phase 1 ESA prior to the sale of the site to assess the risk of soil and/or groundwater contamination from current and/or historical site uses of the site. It is understood that the NAB has requested an environmental assessment of the service station site only, which has an estimated area of 2,700 square metres (m²). According to the Cooma Monaro Shire Council Section 149(5) Planning Certificate the site is zoned 1(a) General Rural Zone.

A site inspection of the United Service Station was conducted on 29 July 2008 by a Coffey Environments scientist from our Canberra office. From the site inspection and review of the historical data, the following was noted:

- The service station has been present on the site since 1988;
- Five USTs used to store ULP, PULP, E10 and diesel are located on the site. A visual inspection of the tanks was not possible during the site inspection, however there is a high risk of contamination to the surround soil and/or groundwater originating from the USTs;
- Potential chemicals of environmental concern associated with the service station include TPH, BTEX, PAH and lead;
- A LPG AST was situated on the west side of the site. The installation of the AST appeared to be recent; and
- Preferential pathways that may facilitate the migration of potential contaminants include the migration of potential chemicals of concern through the soil profile; transportation of contaminants by surface water runoff from the site into the stormwater drain and the possible migration of contaminants through groundwater.

Based on the site history, government records, field observations it was assessed that there is a high potential for the soil and/or groundwater beneath the site to be contaminated, particularly with regards to TPH, BTEX, PAH and lead.

A Phase 2 ESA is recommended by Coffey Environments to assess the soil and underlying groundwater for potential chemicals of concern in the vicinity of the service station as identified in this Phase 1 ESA.

1 INTRODUCTION

Coffey Environments Pty Ltd (Coffey Environments) was commissioned by Baron Enterprises to undertake a Phase 1 Environmental Site Assessment (ESA) of the United Service Station located at 1 Ryrie Street, Michelago, NSW (the site). The work was engaged by Mr Paul Kennedy on behalf of Mr Robin Spratt via facsimile on 19 September 2008 and was undertaken in general accordance with the proposal titled '*Proposal for a Phase 1 Environmental Site Assessment, United Service Station, Corner of Monaro Highway and Ryrie Street, Michelago, NSW*' (Ref: ENVICANB00210-P01) dated 23 July 2008.

17 It is understood that an environmental assessment has been requested by the National Australia Bank (NAB) prior to the sale of the site which includes the United Service Station located on the corner of the Monaro Highway and Burra Road, Michelago, NSW. The total area of the land to be sold is approximately ~~12,500~~ acres and is to be purchased with the intention of subdividing and rezoning part of the site to allow for future re-development for residential purposes.

It is understood that the NAB has requested an environmental assessment of the service station site only, which has an estimated area of 2,700 square metres (m²). Discussions with Mr Robin Spratt and from documents supplied (refer to Appendix F) it is understood that the lessee has the option to continue to use the site for the service station. It is also understood that the intended use and zoning of the site will not be subject to redevelopment.

Your attention is drawn to the enclosed sheet titled '*Important Information About Your Coffey Environmental Report*', which should be read in conjunction with this report.

1.1 Objectives

The proposed objectives of this assessment were to:

- Identify current and historical activities that may have contaminated and potentially affect the suitability of the site for the continued use as a service station; and
- Identify potential contaminating activities and/or contaminants that may require further assessment.

1.2 Scope of Works

The scope of works of this Phase 1 ESA is described in the following sections.

1.2.1 Site History Review

The site history review includes:

- A site visit by a suitably qualified Coffey Environments scientist / engineer;
- A review of Council records including a Section 149 Planning Certificate;
- A review of selected aerial photographs over the past 40 – 50 years;
- A review of previous site ownership through a land title search;
- A review of NSW WorkCover records for licenses to store dangerous goods;
- A review of geological and hydrogeological maps of the area; and

- A review of NSW Environmental Protection Agency (EPA) notices under the Contaminated Land Act (1997) and relevant licensed premises under the Protection of the Environment Operations Act (1997).

1.2.2 Data Assessment and Reporting

The data was reviewed in accordance with the relevant sections of the NSW EPA (1997) *"Guidelines for Consultants Reporting on Contaminated Sites"*. This report describes the work undertaken, assesses potential areas of concern and associated chemicals of concern and addresses any additional investigation requirements.

2 SITE CHARACTERISATION

2.1 Site Ownership and Land Use

The address of the site is 1 Ryrie Street, Michelago, NSW and is identified as Lot 1 in DP790570.

A search of the NSW Department of Lands land title records show that the block is currently owned by Mr Robin Spratt and Ms Suzanne Spratt. All records relating to land titles and previous owners are shown in Appendix B.

The site is zoned as Zone 1(a) "General Rural Zone" and is for commercial/industrial business. The United Service Station is currently located on the site which was commissioned in 1988.

A site location plan is attached as Figure 1 and a detailed site plan is shown in Figure 2.

2.2 Geology and Hydrogeology

2.2.1 Geology

The "Canberra 1:250,000 Geological Series Sheet SI 55-16" (1968) indicates that the site is underlain by a porphyry unit of the Upper Silurian aged Mount Painter Porphyry.

2.2.2 Hydrogeology

A search of the NSW Groundwater Works database indicated that there are two registered groundwater bores located on the site. Although there is no recorded information regarding the properties of the bores or groundwater beneath the site anecdotal evidence from Mr Michael Keys indicated that the bore located on the west side of the Michelago Motor Inn was used as a supply of potable water.

Another twelve registered boreholes were identified within a 500m radius of the site. Information obtained from the database records indicates that the groundwater yield of wells within a 500m radius of the site ranges from 0.1L/sec and 0.5L/sec while hole indicates that total dissolved solids (TDS) concentrations are less than 500mg/L. Copies of the NSW Groundwater Works database records for boreholes within a 500m radius of the site are located in Appendix C.

Based on information from the boreholes within a 500m radius of the site and anecdotal evidence from Mr Robin Spratt, the depth of groundwater beneath the site is estimated to be between approximately 10m and 15m below ground surface. Ryries Creek is the nearest surface water body and is located approximately 370m south of the site, while the Murrumbidgee River is located approximately 2km west of the site. Based on this and the regional topography, the inferred groundwater flow direction beneath the site is towards the south west.

2.3 Topography and Drainage

Information obtained from the "1:250,000 Canberra Topographic Map SI55-16 Edition 4" (Natmap, 2005) indicates the site is situated in a valley between the Tinderry Range and ~~Booth~~ ^{Cher} range approximately 690m above the Australian Height Datum (AHD).

The local site topography is undulating with a gently towards the south west of the site. Drainage was facilitated by a series of subsurface stormwater drains. No surface water drainage controls such as

guttering or bunding were noted on the site and surface water run-off not collected by the stormwater drains was predicted to flow onto the exposed soil off site.

2.4 Surrounding Land Use

The use of the land surrounding the site is summarised below:

- North – Vacant Paddock;
- East – Mostly vacant land with the Michelago Village Inn located approximately 80m east of the service station;
- West – The Monaro Highway is located approximately 80m west of the site with vacant land on the opposite side of the highway;
- South – Ryrie Street is located south of the site with a vacant paddock situated on the opposite side of Ryrie Street.

As described in Section 2.2, the nearest surface water body was Ryrie Creek located approximately 370m south of the site.

2.5 Site Observations

A representative from Coffey Environments visited the site on 29 July 2008. At the time of the site visit the following observations were made:

- The following buildings were present on the site:
 - A retail shopfront; and
 - A canopy at the front of the service station with 6 fuel bowsers and 1 gas bower;
- The ground surface of the site is predominantly gravel (approximately 65%), while the remaining areas of the site were concrete (15%) and bitumen (20%). The concrete appeared to be in good condition with minor cracking and pavement staining, while bitumen areas were noted to be in very poor condition with large holes exposing the underlying soil;
- A square area of concrete appeared to have been replaced on the west side of the canopy near the shopfront. The reason for the replaced concrete is not known;
- A 30cm strip of concrete was replaced opposite the west entrance driveway as a part of the installation of the liquid petroleum gas (LPG) aboveground tank (AST);
- A tank farm with four underground storage tanks (UST) was located on the west side near the entrance driveway to the service station. A summary of the tanks located on the site is presented in Table 1. In summary the tank farm contained ~~three~~ 45,000 litre (L) USTs which stored unleaded petrol (ULP) premium unleaded petrol (PULP) and ethanol containing petrol (E10). The fourth tank in the tank farm was approximately 25,000L and contained ULP. Documentation provided by Mr Robin Spratt indicates that Tank 1 was formerly used to store Super (leaded petrol). Because the tanks and their associated fuel lines were buried a visual assessment of the condition of the tanks could not be made;

- A 45,000L diesel UST was located on the west side of the shop building which was connected to the open air diesel bowser located at the rear of the shop. The tank was completely buried and a visual assessment of the tank condition could not be made;
- A 7,500L LPG AST was located on the west boundary of the site behind a series of steel barricades. The condition of the tank appeared to be relatively new and in excellent condition. The tank was linked to an LPG bowser situated under cover in the south west corner of the canopy;
- No significant staining was observed in the vicinity of the UST fill points;
- It was suspected that the site had been levelled for the construction of the service station. If this is the case, then fill material may have been sourced from off site, the characteristics of which are not known;
- Stormwater drains were observed beneath the canopy and along the east side of the site. No drainage channels to redirect surface water to these drains was observed;
- No guttering or bunding was observed around the site and surface water runoff not trapped by the stormwater drains would flow off site;
- Five vent lines were observed on the west boundary of the site which appeared to be in fair condition;
- A septic tank was observed to be located on the east side of the site;
- Overhead powerlines were noted to pass over the canopy;

2.6 Site History

The following site history was compiled from aerial photographs and title searches.

2.6.1 Aerial Photographs

The main observations from a review of the aerial photographs obtained from NSW Department of Lands are summarised in Table A. The scale of the aerial photographs is approximately 1:25,000 and copies of photographs are presented in Appendix A.

Table A: Review of Aerial Photographs

Year of Photo	Site Description	Surrounding Area Description
1951	• No buildings are visible on the site. • A small drainage channel (facilitating possible overflow of a nearby dam) flows towards the south through the centre of the site and into Ryries Creek.	• The Monaro highway and Ryrie Street are present and both appear to be a dirt roads. • Some buildings are present in the town of Michelago.
1961	• No visible change.	• Several new buildings are present in the town of Michelago.

Year of Photo	Site Description	Surrounding Area Description
1976	No visible change.	The Monaro Highway and Ryrie Street appear to have been sealed with bitumen.
1992	- The service station and motel are present on the site. - The service station appears to have been constructed on top of the small drainage channel which flow towards Ryrie Creek.	Additional buildings in Michelago are visible.
2004	No visible change.	New trees are visible to the north and south of the site.

2.7 Land Title Search

Information regarding the historical use of the site was obtained from a search of the land title search from Environmental Legal Searches. A summary of the historical site use is presented in Table B and a copy of the land title search is included in Appendix B.

Table B: Summary of Historical Land Use

Date	Land Owner(s)	Source	Land Use
1990-2008	Robin Devereux Spratt & Suzanne Eileen Spratt	Title	Motel and Service Station
1985-1990	Tavira Holdings Pty Ltd	Title	Unknown
1961-1985	Dennis James Byrne	Title	Grazing
1938	Francis Patrick Povey & Frederick Charles Byrne	Title	Grazing
1925-1938	Dennis Kelly	Title	Grazing
1922-1925	Ellen Kelly	Title	Unknown
1921-1922	Granville de Laune and Vincent Wallace Ryrie	Title	Unknown
1910-1921	William Moodie Ryrie and Vincent Wallace Ryrie	Title	Unknown
1899-1910	Alexander Ryrie	Title	Unknown

Anecdotal evidence from the current proprietor, Mr Robin Spratt indicated that the site was vacant prior to 1988 when the service station was constructed which is supported by the aerial photographs.

2.8 Government Record Searches

2.8.1 NSW WorkCover

An Acknowledgement of Notification of Dangerous Goods on Premises was provided to Coffey Environments by Mr Robin Spratt. The notification only acknowledges the three 45,000L USTs and the 7,500L AST and does not include the 25,000L UST. A copy of the acknowledgement is provided in Appendix G.

2.8.2 NSW Environment Protection Authority

A search of the NSW Environment Protection Authority (NSW EPA) notices under the Contaminated Land Act (1997) did not find any records for the site. It should be noted that this does not discount the potential for contamination on the site, but indicates that the site has not been regulated by the NSW EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985. Results of the search are shown in Appendix D.

2.8.3 Cooma-Monaro Shire Council

A Section 149 (2) and (5) Planning Certificate was obtained from Cooma-Monaro Shire Council. The site is currently zoned Zone 1(a) General Rural Zone under the terms of the Cooma-Monaro Local Environmental Plan 2002.

The main objective outlined in the Section 149 (2) and (5) Planning Certificate for areas zoned 1(a) General Rural Zone are:

"to protect the agricultural potential of rural land and to prevent the fragmentation of viable rural holdings"

Under the current zone, permitted uses allowed only with development consent include abattoirs, advertising structures, agriculture, animal boarding establishments, animal breeding or training establishments, bus depots, child care centres, churches, clubs, community facilities, feed lots, landfill, liquid fuel depots, motels, piggeries, recreation areas, retail plant nurseries, rural home industries, rural workers dwellings, service stations, stock and sale yards, general stores telecommunications facilities and veterinary hospitals.

A review of the zoning certificate indicates that agriculture – general farming, bush fire hazard reduction; cemeteries – private burial site, garaging of plant and trucks, home occupation, and tree farming are allowed without development consent. Certain types of development prohibited at the site under the current zoning are listed in the Section 149 Planning Certificate (Appendix E).

All development at the site should be in accordance with the zoning certificate. State and Regional Environmental Planning Policies (SEPPs and REPs) also apply to the site and surrounding area. These include the following:

No Local Environmental Plans (LEPs) or Development Control Plans (DCPs) and Contributions Plans were supplied with the Section 149 (2) and (5) Planning Certificates.

State Environmental Planning Policies (SEPPs)

- SEPP No. 1 – Development Standards;
- SEPP No. 4 – Development without Consent and Miscellaneous Exempt and Complying Development;
- SEPP No. 6 – Number of storeys in a building;
- SEPP No. 15 – Rural Landsharing Communities;
- SEPP No. 21 – Caravan Parks;
- SEPP No. 22 – Shops and Commercial premises;
- SEPP No. 30 – Intensive Agriculture;
- SEPP No. 32 – Urban Consolidation (Redevelopment of Urban Land);
- SEPP No. 33 – Hazardous and Offensive Development;
- SEPP No. 36 – Manufactured Home Estates;
- SEPP No. 44 – Koala Habitat Protection;
- SEPP No. 55 – Remediation of Land;
- SEPP No. 64 – Advertising and Signage;
- SEPP No. 65 – Design Quality of Residential Flat Development;
- SEPP (Seniors Living) 2004 – Seniors Living;
- SEPP Building Sustainability Index: BASIX 2004 – BASIX;
- SEPP Major Projects 2005 – Major Projects;
- SEPP Temporary Structures and Places of Public Entertainment (2007);
- SEPP Mining, Petroleum Production and Extractive Industries (2007); and
- SEPP Infrastructure (2007);
- SEPP Rural Lands (2008)

Other relevant key information from the zoning certificate is summarised as follows:

- The site is not affected by the operation of Sections 38 or 39 of the *Coastal Protection Act 1979*;
- The site has not been proclaimed to be within a mine subsidence district within the meaning of Section 15 of the *Mine Subsidence Compensation Act 1961*;
- The site is not affected by any road widening or road alignment proposals, under Division 2 of Part 3 of the *Roads Act 1993*, or an environmental planning instrument or a resolution of the council;
- No environmental planning instrument, including deemed or draft instruments, provides for acquisition of the land by a public authority; and

Phase 1 Environmental Site Assessment
United Service Station
1 Ryrie Street, Michelago, NSW

- The land does not include critical habitat, is not in a conservation area and does not contain any items of environmental heritage.

A copy of the planning certificate which provides details of all environmental planning instruments and relevant information pertaining to the site is provided in Appendix E.

3 POTENTIAL AREAS AND CHEMICALS OF ENVIRONMENTAL CONCERN

3.1 On Site Sources of Contamination and Potential Contaminants of Concern

Areas of environmental concern (AEC) were identified to possess a risk of potential contamination from the storage and dispensing of fuel product on site.

As described in Section 2.5, five USTs containing diesel, PULP, ULP and E10 were present on the site. A visual inspection of the tanks was not possible as they were completely buried beneath the concrete driveway of the site. However, it is understood that at least four of the tanks have been present since the construction of the service station in 1988, making them approximately 20 years old.

Given the age of the USTs, they are most likely constructed of steel making it possible that the condition of each tank has deteriorated over time by processes such as corrosion. This may result in the leaking of fuel product into the surrounding soil and/or groundwater from the vicinity of the tanks. In addition, the fuel lines from the USTs to the bowzers are often primary sources of potential contamination as the fuel pipes are also susceptible to corrosion over time.

Potential contaminants of concern associated with the UST and associated pipework include TPH, BTEX from ULP and PULP products, PAHs associated with oil spills and diesel and lead associated with the historical presence of Super product.

3.2 Preferential Pathways and Contaminant Migration

The main pathway identified on the site for contaminants to migrate was through the soil profile from spills onto areas with exposed soil or primary leaks in the USTs into the surrounding soil. In areas where concrete floors had been laid and remained in good condition, the risk of contaminants infiltrating the soil would be reduced.

Groundwater beneath the site is also a preferential pathway for potential contaminants of concern and may introduce contamination from sources off site. Groundwater beneath the site is considered to be between 10m and 15m below the ground surface. As a result it is considered that there is a risk of groundwater contamination which may migrate off site. Further groundwater assessment would be required to assess this risk.

3.3 Potential Off Site Sources of Contamination

The use of fill material to level the site during the construction of the service station introduces the possibility of contamination being brought onto the site from an off site source. The origin of any fill material is not known and therefore the characteristics (e.g. rock types, presence of possible contaminants) are also not known. An assessment of the potential for fill material and its characteristics may only be assessed from sub-surface samples of the fill material.

4 SUMMARY AND CONCLUSION

Your attention is drawn to the enclosed sheet titled '*Important Information About Your Coffey Environmental Report*', which should be read in conjunction with this report.

Based on the above results of the Phase 1 ESA it can be concluded that:

- The site is located at the corner of the Monaro Highway and Ryrie Street, Michelago, NSW and is identified as Lot 1 DP790570 and is zoned as Zone 1(a) General Rural Zone;
- The site is currently has a United Service Station and the Michelago Village Inn. The focus of this assessment was on the area occupied by the service station;
- The surrounding area is mostly vacant paddock, while the Michelago Village Inn is located approximately 80m east of the service station;
- Drainage on the site was facilitated by a series of drains, however no surface water drainage controls such as guttering or bunding were noted on the site. Any surface water not collected by the drains was predicted to flow off the site. The nearest surface water body is Ryries Creek located 370m south of the site;
- Groundwater beneath the site is estimated to be between 10m and 15m below ground surface and is thought to have a total dissolved solid concentration of <500mg/L. A groundwater well is located near the Michelago Motor Inn which is used for potable water supplies;
- The service station has been present on the site since 1988;
- Five USTs used to store ULP, PULP, E10 and diesel are located on the site. A visual inspection of the tanks was not possible during the site inspection, however there is a high risk of contamination to the surround soil and/or groundwater originating from the USTs;
- Potential chemicals of environmental concern associated with the service station include TPH, BTEX, PAH and lead;
- A LPG AST was situated on the west side of the site. The installation of the AST appeared to be recent; and
- Preferential pathways that may facilitate the migration of potential contaminants include the migration of potential chemicals of concern through the soil profile; transportation of contaminants by surface water runoff from the site into the stormwater drain and the possible migration of contaminants through groundwater.

In summary, the presence of the USTs suggest that the current use of the site has potential to contaminate the surrounding soil and/or underlying groundwater with TPH, BTEX, PAHs and lead associated with the storage of petroleum products on site.

5 RECOMMENDATIONS

Based on the findings of this Phase 1 ESA, it was established that the site has activities which have the potential to introduce a variety of contaminants onto the site. The purpose of a Phase 1 ESA is to assess the risk of contamination and does not aim to collect information regarding the distribution or concentration of potential contaminants which can only be done with the implementation of a sampling program. As such, a Phase 2 Environmental Site Assessment would be required to assess the sub-surface conditions of the service station for potential contamination. The objectives of a Phase 2 ESA would be to:

- Assess the underlying soil for potential chemicals of concern in the vicinity of the service station identified in this Phase 1 ESA; and
- Assess groundwater for possible contamination resulting from current and past activities on the site and assess the likely migration of groundwater contamination beneath the site by installing a series of groundwater monitoring wells on the site.

This assessment should be completed in accordance with the NSW EPA (1994) "*Guidelines for Assessing Service Station Sites*"

6 LIMITATIONS

The findings contained within this report are the result of site observations, physical records and review of geological information collected by Coffey Environments Pty Ltd and Information provided by the Client. Note that the assessment was preliminary in nature only and did not include the sampling and analysis of either soil or groundwater. To the best of our knowledge, this report presents a reasonable interpretation of the available information and general condition of the subject site. Under no circumstances, however, do these findings represent the actual state of the site at all points.

7 REFERENCES

Bureau of Mineral Resources (1968) Canberra 1:250,000 Geological Series Sheet SI 55-16

National Environment Protection Council (1999) National Environment Protection (Assessment of Site Contamination) Measure 1999 (*NEPM*).

Natmap (2005) 1:250,000 Canberra Topographic Map SI55-16 Edition 4

NSW EPA (1997) Contaminated Land Management Act.

NSW EPA (1997) Guidelines for Consultants Reporting on Contaminated Sites.

NSW EPA (1997) Protection of the Environment Operations Act.

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.

3.3. Michelago

Like many other towns on Monaro, Michelago started (in 1832) as a supply centre for local grazing properties. It lay on the direct track from Sydney and Goulburn to the new grazing properties on Monaro and to the Klandra goldfields. A post office was opened in 1860; at the same time, a police station was opened to cope with bushrangers, and cattle and horse thieves. A telegraph station was added to the post office in 1878 and the railway reached the village in 1887.

Michelago Profile

The village of Michelago is located just off the Monaro Highway, forty minutes south of Queanbeyan and Canberra.

The village is situated on flat land with Michelago Creek bounding the southern edge. The Tinderry National Park is to the east and the Murrumbidgee River corridor to the west. Rural land predominantly used for agriculture surrounds the village. There are a number of smaller lots with dwellings to the south and north of the village.

At the 2005 Strategic Planning Project community workshop held in Michelago people stated that they liked the areas proximity to the ACT for employment opportunities, proximity to the coast and National Park. They liked the rural environment, freedom and the positives this brings to family life.

Much of the community saw the village as offering development opportunities but would like development managed.

People also stated that there was a diverse range of people of all incomes and background who make up the Michelago community. The described the community as friendly, self reliant and organised.

It is estimated that the village of Michelago has a population of 70 people. The number of people surrounding Michelago is difficult to estimate.

The community assets include:

- the primary school
- historic railway station
- playground, oval and tennis courts
- community hall
- Anglican and Catholic churches
- pony club grounds
- cemetery
- rural fire shed

There are a number of commercial enterprises in the village including the following:

- service station
- motel
- general store (which provides postal services, liquor retail and video hire)

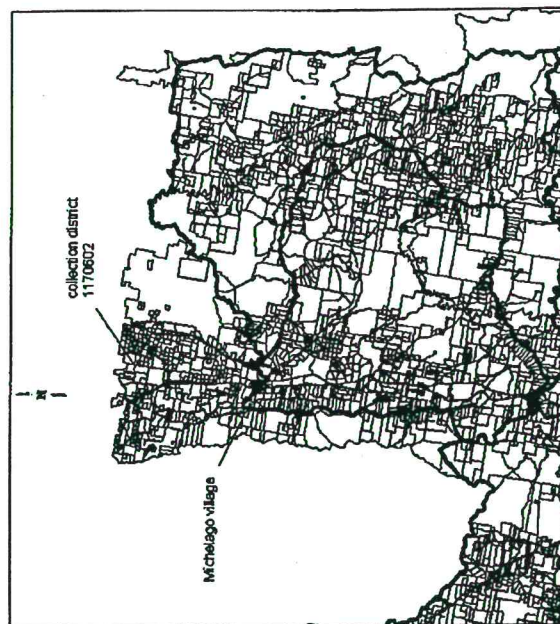
Government services provided at Michelago include:

- a police station
- community nursing
- home visit following the birth of a child from Queanbeyan Hospital or ACT hospitals

282¹⁰⁷.

This provides an estimated total population of the Michelago region of 141.

Map 3.4 Michelago Collection District



Source: Cooma-Monaro Shire Council adapted from government agency data.

An indication of the village population can be obtained by

¹⁰⁷ ABS 2001

- mobile library
- mobile preschool
- primary school
- recycling and waste collection
- Home and Community Care Services

The village does not have reticulated water or sewer.

Community groups include:

- Michelago Region Community Association
- Land care
- Michelago Pony Club
- Rural Fire Service

Events and activities

- Pony club
- playgroup

Demographics

There is no specific collection district for Michelago village or the rural areas. The ABS collection district encompassing the village and surrounds is 1170602 and is outlined in the below map.

As seen from Map 3.4 this collection district also covers the localities of Clear Range, The Angle and Bumbalong. The best indication of the total population in the Michelago area is obtained by dividing the total population in the collection district 1170602 in two. One half being the Michelago area and the other Clear Range, The Angle and Bumbalong. The total population recorded for the collection district in 2001 was

multiplying the number of dwellings in the village by 2.5 (an average household size). It is estimated that 70 people live in Michelago village.

The southern rural residential area is outside the collection district of 1170602.

The median age of the collection district at the time of the 2001 census was 39 years (ABS)

The majority of people in the collection district spoke English only.

As the collection district covers an area greater than Michelago no data has been provided in relation to households.

Education and Training School

The number of children in the Michelago Primary School in 2006 was 37 however this number varies slightly from year to year.

Children also attend primary school in Queanbeyan and the ACT and must travel to Cooma, Queanbeyan or the ACT for high school education.

Preschool

The Monaro Mobile Preschool Service provides a service to the community on Mondays. The service is partially subsidised by the community in order to ensure its tenure. Children do not get priority in ACT preschool centres due to

the fact they are NSW residents. Some children attend Queanbeyan pre-schools.

The Mobile Preschool requires 10 children to operate and therefore is dependant on the number attending or fundraising by the community to sustain the service.

Health and Community Services

Queanbeyan Community Health Community Nurses visit discharge clients, undertake aged care assessments, and have provided a sex education program to the school.

Queanbeyan HACC services are funded by the Department of Ageing, Disability and Home Care to provide HACC services in Michelago.

Employment

employment sectors

The sectors of health and community services, education and government administration, agriculture, forestry and fishing and defence employed the most number of people in the collection district.

childcare

Informal childcare for before and after school care is limited.

Income

As previously stated there is no 2001 census material specifically for Michelago. The following data is for the whole of the collection district.

The median weekly individual income was \$600-\$699.

The median weekly family income was \$1,200-\$1,499.

The median weekly household income was \$1,200 - \$1,499¹⁰⁸.

Economic Development

Considering the advancements in telecommunications/transportation it is probable a number of home businesses are operating in the area.

As previously stated there are a small number of commercial enterprises in the village. The agricultural sector remains a large user of land in the region.

The historic railway used to run historic rail trips but can no longer do this as the trains cannot proceed past the Royalla siding due to structural problems with the bridge between Royalla and Michelago. Members of the community have expressed a desire to re-open the railway to establish a tourist route.

Housing

As there is no specific census data for Michelago median mortgage payments and rents have not been included.

An internet search (www.allhomes.com.au) of dwelling and land prices in mid 2006 found the following:

- Ryrie Street - \$185,000 (Land)
- 6 Ryrie Street - \$275,000 (House)

¹⁰⁸ ABS 2002

- 6A Ryrie Street - \$348,000 (House)
- 4850 Monaro Highway - \$269,000 (Rural)

Compared with other areas of the shire the Michelago land and dwelling prices are relatively high.

Transport

There are no households in the area that do not have a car¹⁰⁹.

The area is approximately 50 minutes from Canberra airport and railway stations.

A school bus service operates to Queanbeyan and Canberra leaving at 7.30am and returning at 4.30pm.

The Countrylink bus service collects passengers from the Michelago district from a designated point at the side of the Monaro Highway.

Communications and Technology

The Monaro Regional Library and Information Service provide the Mobile Library every second Monday during school hours.

The total number of people who used a computer in the collection district in 2001 was 141, the number of people who accessed the internet was 71¹¹⁰.

Recreation

Refer to Leisure and Recreation Section.

¹⁰⁹ Public Practice 2004

¹¹⁰ Public Practice 2004

Table 3.7 Michelago – Summary of issues, strategies, responsibilities, priority

IDENTIFIED ISSUES	STRATEGY	RESPONSIBILITY	PRIORITY
Community members felt that communication with Council could be improved	M1 Council and the Community Development Association to discuss means of communication	CMSC	A
School bus from Canberra is crowded with children standing	M2 Car pooling M3 Lobby bus company to ensure seating for all children	Michelago community	A
The current position of the bus stop (side of the highway) is viewed by the community as being a risk.	M4 discuss with Ministry of Transport and bus companies	CMSC	B
The entrance to the pony club/cemetery access from the Monaro Highway during peak winter season traffic	M5 Council to approach Department of Lands and the NSW Roads and Traffic Authority to discuss access	Cooma-Monaro Shire Council, Department of Lands, NSW Roads and Traffic Authority	A
Lack of child care options (including after school care)	M6 Support Michelago Primary School initiatives to sustain a before and after school care service for school children M7 Explore options for family day care provider to provide day care and after school care service for school children M8 Provide support to parents, grandparents, foster parents, guardians and others who have responsibility for care of children M9 Investigate establishing a grandparents peer support group on the Monaro M10 Further investigate the issues and available options for people living in the smaller towns when they need access to child development services	Michelago P&C Michelago Public School Cooma-Monaro Shire Council (advocate) Childcare providers	B
Youth anti-social behaviour/graffiti	M11 Extend MRHS services in future funding to include Michelago M12 Provide transport via the YMCA project for youth to attend events in Cooma. M13 discuss charges and levels of service with communication companies	Monaro Rural Health Service, YMCA Cooma-Monaro Shire Council (advocate)	B
- Poor telecommunications – microwave and satellite available - Poor free to air TV reception - STD phone charges to call Cooma			B
High transport costs and limited community support services	M14 Support the establishment of health and community services outreach to Michelago, saving local residents the time and cost to access services in Cooma or Canberra, Queanbeyan.	Cooma-Monaro Shire Council Queanbeyan	B

Table 3.7 Michelago – Summary of issues, strategies, responsibilities, priority

IDENTIFIED ISSUES	STRATEGY	RESPONSIBILITY	PRIORITY
	M15 Clarify responsibility for providing HACC services to Michelago	Council/HACC	
Upgrade playground, oval, seating and shade required in the playground and upgrade of playground equipment	M16 Complete plan of management for the village sports ground M17 Identify priorities and funding in accordance with the plan M18 (refer to Council Recreation Strategic Plan)	Cooma-Monaro Shire Council with input from Michelago community	B
Maintain roads for safety and access to services	M19 Identified in Council Works Program	Cooma-Monaro Shire Council	C
Limited tourist attractions, asset in the Historic Railway	M20 Identify options for upgrading the railway bridge to enable reopening of a tourist rail service M21 Develop Main Street and businesses, but ensure growth is managed to retain community spirit and preserve unique values of the village M22 Refer to Weeds Management Policy M23 Council facilitate weed management plans with landowners	Michelago community Cooma Monaro Railway Cooma-Monaro Shire Council (Advocate)	C
Noxious weeds		Cooma-Monaro Shire Council	ongoing
Community Hall- there is some concern that rental is too expensive for locals to use for private functions.	M24 review the hall hire fees as part of Council's Management Plan process	Cooma-Monaro Shire Council Hall 355 Committee	A