



**PREPARED FOR  
CODLEA PTY LTD**

**STAGE 1 PRELIMINARY  
CONTAMINATED LAND ASSESSMENT**

LOT 1 on DP 871039  
STAGE 2 BAYSIDE BRUNSWICK ESTATE

*Ref: BT 19034-CL2*

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## EXECUTIVE SUMMARY

A Stage 1 Preliminary Contaminated Land Assessment in accordance with *State Environmental Planning Policy No. 55* (SEPP 55) and the *Contaminated Land Management Act 1997* was carried out by Border-Tech at Lot 1 DP871039 Bayside Way, Brunswick Heads. The investigation looked at the land use history of the site and also undertook a preliminary sampling and analysis program to assess the need for a Stage 2 Detailed Site Investigation.

Analysis of the site history has found that over the last 100 years the site has never had any specific use and has always been vacant and unfenced. No agricultural activities were shown to have occurred on the site at any time and with the exception of several drainage canals and the service road along the eastern boundary, has never been developed.

No signs of contamination or potentially contaminating activities were uncovered as part of the investigation, however for assurance purposes it was decided that a preliminary sampling and analysis program be undertaken.

Fieldwork was undertaken on 11 August 2009 by an environmental scientist from Border-Tech and involved the recovery of 3 individual samples from across the site. Two (2) of the samples were located in areas of human disturbance and one (1) sample from an area where the soil was deemed not to have been directly affected by human disturbance. Samples were tested for heavy metals (including arsenic, lead and chromium), hydrocarbons and BTEX.

All species tested recorded results below their relevant health based investigation level for residential use. The majority of results were below the level of detection, with only trace amounts of lead (2 mg/kg), benzene (0.2 mg/kg) and TPH C10 – C40 (460 and 371 mg/kg) detected.

The results of the laboratory testing indicate that the site has not been exposed to unacceptable levels of hydrocarbons, BTEX or heavy metals. Consequently, it was concluded that soil contamination is not a constraint to residential development at the site.



## 1.0 INTRODUCTION

Border-Tech was commissioned by Codlea Pty Ltd to undertake a Preliminary Contaminated Land Investigation of Lot 1 DP871039 Bayside Way, Brunswick Heads. There is currently a development application in progress for an (approximate) 178 lot residential sub-division, assessable by the NSW Department of Planning. This report should be read in conjunction with the Border-Tech 'Acid Sulfate Soils Assessment' (Our Ref BT 19034-A) and the Waste Solutions Australia Pty Ltd 'Surface and Groundwater Assessment' (Ref W516).

This assessment is a Preliminary (Stage 1) Contaminated Land Investigation in accordance with the *State Environmental Planning Policy No. 55* (SEPP 55) and the *Contaminated Land Management Act 1997*. The report will aim to identify any past or present potentially contaminating activities on the site by conducting a detailed appraisal of the site's history, visual site inspection and preliminary sampling regime.

In the event that the investigation identifies the existence of soil contamination, a detailed (Stage 2) investigation will be required. However, "where the preliminary investigation shows a history of non-contaminating activities at a site and, in the absence of any contrary evidence, there will be no need for further investigations" (SEPP 55, 1998).

### 1.1 Scope of Work

This investigation will aim to determine if soil contamination from past land uses will constrain development on the site by satisfying the following objectives:

- Review of the site's landuse history
- Identify all past and present potentially contaminating activities
- Identify potential contamination types
- Discuss the site condition
- Conduct a preliminary sampling regime
- Assess the need for further investigations

Relevant guideline material considered during the investigation included:

- Department of Environment and Conservation (DEC) (2006), *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme* (2nd edition).
- Environment Protection Authority (EPA) (2000), *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*.
- Department of Urban Affairs and Planning (1998), *Managing Land Contamination: Planning Guideline SEPP 55 – Remediation of Land*.
- Environment Protection Authority (EPA) (1995), *Contaminated Sites: Sampling Design Guidelines*.

- Environment Protection Authority (EPA) (1994), *Service Station Sites: Assessment and Remediation*.
- National Environment Protection Council (NEPC) (1999) *National Environmental Protection (Assessment of Site Contamination) Measure*. National Environment Protection Council Service Corporation, Adelaide, SA.

## 1.2 Limitations

This assessment is limited strictly to identifying existing soil contamination at the site and does not include an examination of any other issues. All recommendations and findings are based on the scope of work and methods detailed in this report.

The findings set-out in this report are based on the information supplied at the time of assessment. Changes to soil conditions may occur subsequent to the investigation through processes such as; accidental applications of chemicals, illegal dumping of waste or natural processes.

Further contaminants may exist at the site which were not identified during the investigation or would not normally be expected at such a site. The analytes chosen for laboratory analysis were deemed to be the most likely potential contaminants based upon site history information. All reasonable steps were made to ensure the accuracy of historical information, however due to the imperfect nature of such an investigation no responsibility is taken for any faults or omissions. Should information arise suggesting soil contamination from sources not identified in this investigation, then further testing and/or assessment may be required.

All conclusions regarding the investigation are the professional opinions of Border-Tech personnel associated with this project. All due care has been taken with the investigation however no responsibility or liability is accepted for information or data obtained from external sources which may prove to be false or misleading. This report does not comment on any regulatory or legal obligations incurred as a result of the report's findings, for which a legal opinion should be sought.

## 1.3 Consultation

The following correspondence with relevant state planning authorities was undertaken throughout the course of the project in 2009.

**Table 1: Consultation**

Date	Between	Method	Nature of Conversation
4/6/2009	Nathan Piper and Jon Keats (Head Industry and Waste Unit North Coast)	Email	DECC does not have the resources for the review of draft reports and will evaluate once report is put on public exhibition.



## 2.0 EXISTING ENVIRONMENT

The subject site lies on the southern side of Brunswick Heads approximately 2km south of the Brunswick Heads town centre and 500m west of Brunswick Beach. The land is described as Lot 1 DP 871039 Bayside Way, Brunswick Heads. It has an area of 31.33 ha bordered by Simpsons Creek to the east, undeveloped bushland to the south and west, and the completed Stage 1 of the Bayside Brunswick residential development to the north.

Approximately 23ha of the site is periodically slashed and vegetated by an open heath community. Dense remnant vegetation comprising closed wet and dry sclerophyll forest exists along the eastern portion of the site. A wetland of state environmental significance (SEPP 14) is located in the north-eastern corner adjoining Simpsons Creek.

Two main drainage pathways exist on the site, terminating in Simpsons Creek. The central and western portion of the site is drained to the south where it meets with another east-west running drain. Water flow on the eastern side of the site is channelled in a north-east direction, directly to Simpsons Creek.

The site is generally flat and low lying. The eastern side of the site contains several north-south running sand ridges which represent the hind dunes of the barrier beach system (Morand, 1994). The central and western side of the site is characterised by an extremely low, level to gently undulating beach ridge plain (Morand, 1994).

### 2.1 Geology and Subsurface Conditions

The Geological Survey of Queensland and NSW, Moreton Geology Map, 1:500,000 series, shows the site to be located on the juncture of a Holocene beach ridge system and a Pleistocene parabolic dune system. Soils in this area will likely consist of quartz and heavy mineral sands.

Based on Border-Tech drilling on the site for Geotechnical and Acid Sulfate Soil Investigations (*Our Ref: BT19034-1, BT19034-A*), the soils across the majority of the site are characterised by a layer of dark grey sand overlying pale grey sand. A stained dark grey/brown sand was found below approximately 1.5m in low lying areas. Soils beneath the sand ridge on the eastern side of the site exhibited mainly pale grey sand with a shallow layer of darker grey topsoil. Shallow organic rich deposits, overlying pale grey sand and stained dark grey/brown sand were found around the northern end of the central drain.



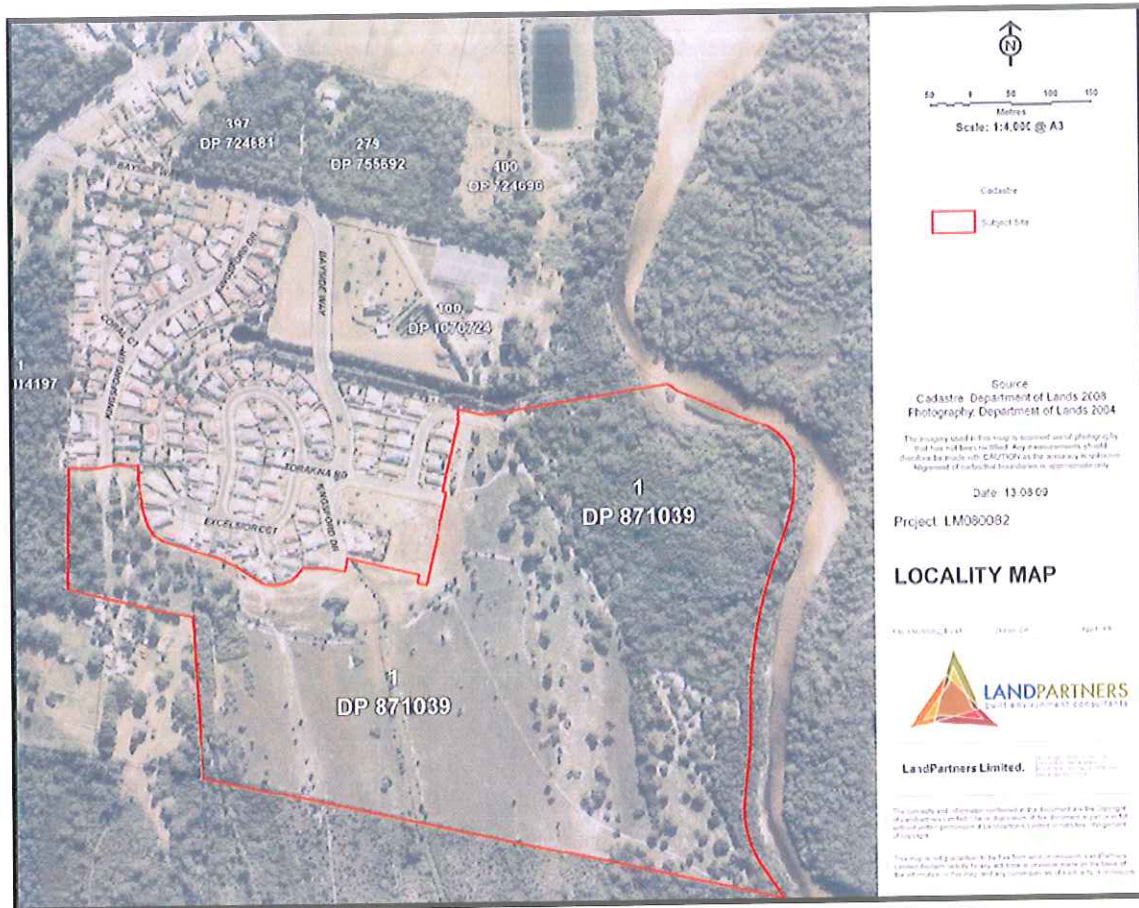


Figure 1: Location of Subject Site (image courtesy of LandPartners)

## 2.2 Groundwater

Supplementary work carried out by Border-Tech on 7 May 2009 encountered groundwater at approximately 0.5m below existing surface level across the flatter areas of the site with levels no deeper than 1.8m in more elevated positions. The water table may fluctuate during periods of high rainfall. A detailed 'Surface and Groundwater Assessment' compiled by Waste Solutions Australia Pty Ltd (Ref W516) is an accompanying document as part of the environmental assessment (EA).

## 2.3 Acid Sulfate Soil Risk

The Huonbrook-Brunswick Heads Acid Sulfate Soil (ASS) Risk Map produced by the Department of Land and Water Conservation (DLWC) rates the vast majority of the site as having a 'low probability' of ASS materials within the soil profile. ASS materials, if present, will be within 1-3m of the soil surface, however the environment of deposition has generally not been suitable for their formation (DLWC 1997).

The mangrove environment in the north-eastern corner of the site represents a small pocket of 'high probability' terrain where ASS are expected to be at or near the soil surface (DLWC 1997). Please refer to the ASS assessment conducted by Border-Tech (Our Ref: BT 19034-A).



### 3.0 PROJECT DISCUSSION

Border-Tech has received a consultant brief and final proposed layout plans dated 13/10/10 indicating the type of development proposed for the site (see Figure 2). From this information it is understood that the project involves the subdivision of a 31.33ha parcel of land to create a residential housing estate consisting of a total of 178 allotments of various sizes. Of the 31ha, approximately 23ha is to be developed into a mixture of single dwelling, dual occupancy and medium density lots. The remaining land will include areas of public parkland and an 8.2ha environmental reserve adjacent to Simpsons Creek.

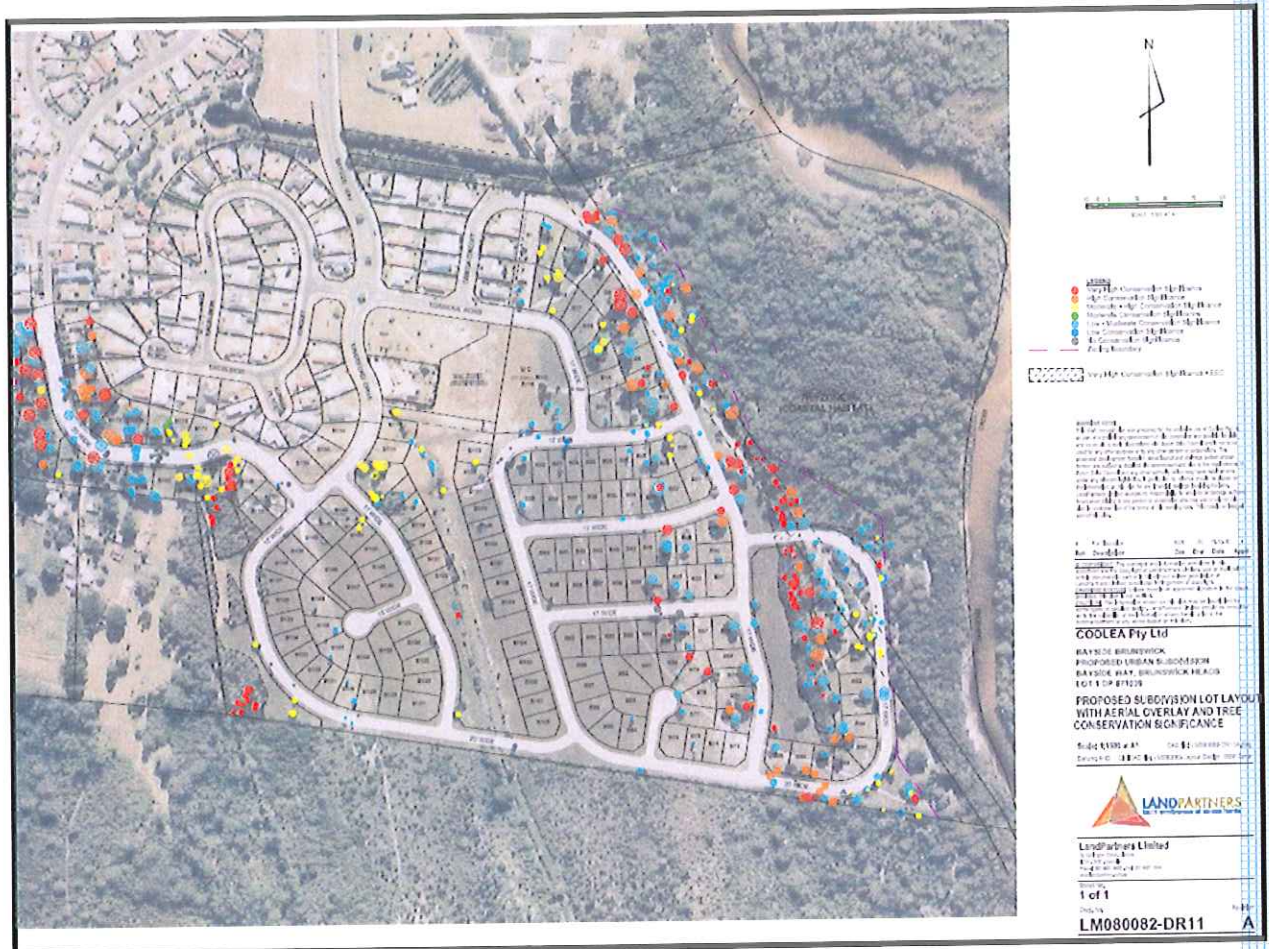


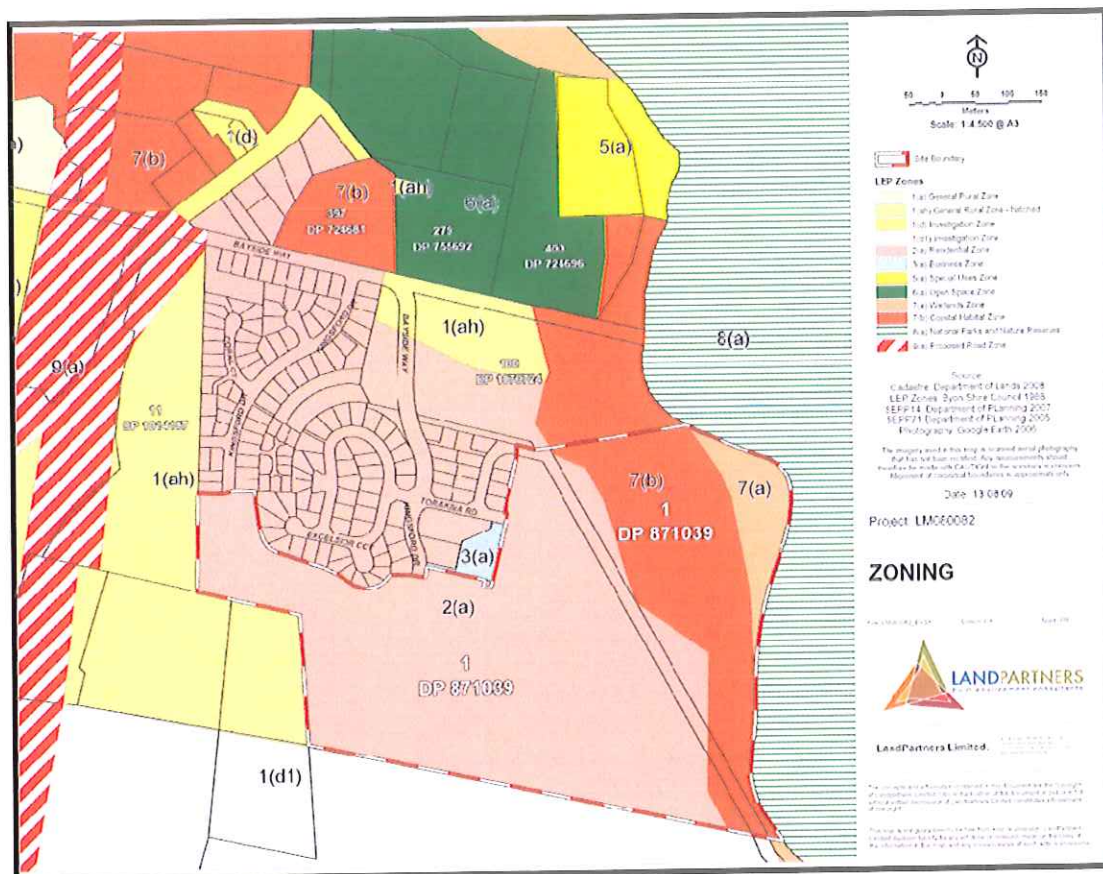
Figure 2: Final Proposed Layout Plans (image courtesy of LandPartners)



## 4.0 PLANNING CONTROLS

Under the Byron Local Environmental Plan 1988 (Byron LEP 1988), last updated 16 March 2006, the site currently falls under the following three zonings as illustrated in Figure 2:

- Part 2(a) Residential Zone: incorporates the proposed building footprint.
- Part 7(b) Coastal Habitat Zone: existing remnant vegetation along the eastern side of the site adjoining Simpsons Creek.
- Part 7(a) Wetlands Zone: located in the north east corner of the site



*Figure 3: Zoning Map – Byron LEP 1998 (image courtesy of LandPartners)*



## **5.0 SITE HISTORY**

The site history was prepared from the following sources:

- General site history provided by client
- Interview with former owner and long time Brunswick resident Roger Buck
- Review of historical aerial photographs dating back to 1947
- Title search with New South Wales Department of Lands

### **5.1 Site History**

An interview was conducted with Mr Roger Buck on June 4 2009 which provided the following site history. Mr Buck is a former owner of the site, local business man and Brunswick resident since 1973.

Mr Buck asserts that the site has never had any specific use and has always known it to be vacant and unfenced. No agricultural activities are known to have occurred on the site and authorised human disturbances limited to the construction of several drainage canals, vegetation slashing and the construction of a service road along the eastern boundary. All owners of the site since the late 1960's – early 1970's are known to have purchased the land with the intention of developing it.

### **5.2 Ownership History**

A title search was conducted through the NSW Department of Lands on 16 July 2009. A summary of the title search results is presented in Table 2 below with original certificates attached as Appendix 6.

**Table 2: SUMMARY OF PROPRIETORS**

Reference	Year	Proprietor
Portion 154	1905	Crown Grant to the Bank of New South Wales
	1905	Javis, G.A
	1915	Wakely F.A
	1948	McDonald, W.A, and McDonald, L.J
	1954	Hale C.H
	1968	Crieghton, N.R and Creighton, L.A
	1970	Richardson, P.
	1973	Kingsford Family (later to become Countryside (No. 3) Pty Ltd)
Portion 215	1906	Crown Grant to the Colonial Mutual Life Assurance Society Limited
	1919	Back, W.A
	1932	Frazer, N
	1940	Back, W.A
	1943	Smith, F.W
	1952	Towers, E.M
	1956	Caswell, D.A
	1962	Judge, R.W
	1969	Princess Properties Ltd
	1971	Billinudgel Pastoral Company Pty Ltd
	1976	Countryside (No. 3) Pty Ltd
Portions Combined		
DP771215	1989	Countryside (No. 3) Pty Ltd
	1989	Gaoten Pty Ltd
	1991	Canpip Pty Ltd, Condell Investments Pty Ltd and Buck, R.E
	1991	Condell Investments Pty Ltd and Buck, R.E
DP851902	1994	Codlea Pty Ltd
DP871039	1997	Codlea Pty Ltd

**Note:** The historical title search conducted by the NSW Department of Lands was for Lot 73 in Deposited Plan (DP) 851902. This title search identifies the change of title from DP851902 to the current DP871039 and is therefore accurate.



### 5.3 Historical Aerial Photography Investigation

All historical photographs were sourced from the New South Wales Government Land and Property Management Authority except where noted. Images are displayed as Appendix 2.

**Table 3: Description of Historical Photographs**

Year	Description
1947 Figure 5 Appendix 2	The site appears to be in its natural state with no visible signs of use. A natural vegetation change is evident with taller forest on sand ridges on eastern side of site giving way to lower (heath) vegetation on flatter low-lying areas.
1966 Figure 6 Appendix 2	Drain to the south of site appears recently constructed (or improved), evident by un-vegetated spoilage on either side of drain. Natural vegetation appears largely intact. No structures visible on the site, cleared/mowed rectangular area joined by north south running track. The reason for the cleared/mowed area is unknown however it does not appear large enough for an airstrip.
1979 Figure 7 Appendix 2	Image only covers northern section of the site. Vegetation appears intact and no new structures evident. A service road has been constructed down the eastern side of the site.
1987 Figure 8 Appendix 2	Clearing in the approximate location of Stage 1 (Bayside Brunswick Estate) is evident. No evidence of land clearing or any structures on the subject site. The cleared/mowed rectangular area observed in the 1966 image is no longer visible. The main north south drain has been constructed.
1993 Figure 9 Appendix 2	Stage 1 of Bayside Brunswick Estate has been partially developed. Clearing/slashing of the heath and dry sclerophyll forest has occurred to the western side of the service road.
2006 Figure 10 Appendix 2 (Source: Google Earth)	Stage 1 of Bayside Brunswick Estate has been fully developed. An additional drainage channel (running roughly east-west) has been constructed, which links up with the existing (north-south) drain. No further vegetation clearing appears to have occurred, however all previously cleared and low lying heathland areas are slashed to prevent regrowth.



## 6.0 FIELD INVESTIGATION

### 6.1 Site Inspection

A site inspection was carried out on 28 May 2009 by an Environmental Scientist from Border-Tech. The site was accessed from the north via Kingsford Drive. Prior to the investigation heavy rain had fallen in the area and much of the lower lying areas were waterlogged, with considerable areas of standing surface water. The main drainage system in the centre of the site was flowing.

The entire heath community to the west of the environment protection zone, (zoned - 2(a) residential) appeared to be periodically slashed.

No fences or structures were present anywhere on the subject site. The only man-made installations were the drainage system and the service road along the western edge of the coastal habitat zone (7b).

With the exception of a raised mound at the termination of Kingsford Drive (presumably stripped topsoil from Stage 1 of Bayside Brunswick Estate), no areas of fill or disused building pads were evident.



*Figure 4: Subject Site Showing Slashed Heath in South-Western Corner*

Additional site photos are attached as Appendix 3.

## 6.2 Signs of Contamination

An inspection of the site was conducted in order to determine any visible signs of contamination such as, discolouration of soil, bare soil patches, plant stress, drums, waste or odours.

The site showed no evidence of the above with the exception of a relatively small amount of scattered waste/rubbish dumped illegally on the site. Types of waste found include:

- Concrete pipes
- Corrugated iron
- Carpet
- Black plastic and black plastic pots
- Chicken wire
- PET drink containers

All of the illegally dumped waste identified was found to be inert, the bulk of which was found on the more heavily vegetated eastern side of the site. Given the large size of the site and its proximity to residential areas, the volume of rubbish uncovered is not considered to be unusual.

The appearance of the water showed no signs of excess algal growth or oil slicks of any kind. A brown tannin stain was present in all surface waters, a characteristic of the wallum sand heath environment.

Borehole drilling for the Acid Sulfate Soil and Geotechnical Assessments conducted by Border-Tech failed to identify any uncharacteristic odours or chemical staining through the soil profile (*see Our Ref: BT 19034-A and 19034-1*).



**Figure 5: Illegally Dumped Concrete Pipes**



### **6.3 Potentially Contaminating Activities**

With the exception of illegally dumped waste, no potentially contaminating activities were uncovered as part of the field investigation. All of the waste identified was considered to be inert and not capable of causing significant soil contamination. None of the waste showed visual signs of containing or leaking hazardous chemicals.

Additional human disturbances to flora and fauna from recreational activities such as tracks from trail bikes, foot traffic and 4WD vehicles, were not deemed to be contaminating activities.

## 7.0 BASIS FOR SAMPLING REGIME

Research into the site history suggests that the subject site has not been exposed to chemicals, or had contaminating activities occur within its boundaries. However for assurance purposes it was decided that a preliminary sampling and analysis program be undertaken. Three (3) soil samples were recovered and tested for a range of possible contaminants.

The soil testing parameters cover a range of heavy metals and hydrocarbon contaminants. The species chosen for laboratory testing were selected as they were deemed to be the most likely pollutants to have been exposed to the site during human activities such as the construction of the drains and the illegal dumping of rubbish. No anecdotal or visual evidence of agricultural use has been uncovered and therefore the use of herbicides and pesticides on the site would be extremely unlikely. Organochlorine and organophosphate pesticides were therefore not included in the laboratory analysis.

The results of the laboratory analysis are compared with Column 1 'Residential' of the Health Based Investigation Levels (HBIL) contained in NSW DEC (2006) and Table 3 contained in 'Service Station Sites: Assessment and Remediation', NSW EPA (1994). Appendix 4 displays the complete list of HBIL's.



## 8.0 SAMPLING METHODOLOGY

Fieldwork was undertaken on 11 August 2009 and involved sampling at the three (3) locations displayed on the attached site plan (*see Appendix 1*). Sample locations were derived using a judgemental sampling regime to include areas on the site where human activities have occurred, in particular the central (north – south) drain, and beneath illegally dumped rubbish. A further sample was recovered from the centre of the slashed paddock where the soil was deemed not to have been directly affected by human disturbance.

As the preliminary sampling regime was for assurance purposes only, the number of samples taken is not in accordance with Table A of the Contaminated Sites: Sampling Design Guidelines, NSW EPA (1995).

Samples were tested for the following analytes:

- Total Petroleum Hydrocarbons (VTPH and TPH C6 – C36)
- BTEX (Benzene, Toluene, Ethyl Benzene, Xylene)
- Arsenic
- Cadmium
- Chromium
- Copper
- Mercury
- Lead
- Zinc

The three (3) samples were located as follows:

**Sample 1 (E18883)** – Located in the wall of the central (north-south) drain

**Sample 2 (E18884)** – Located in the centre of the slashed paddock

**Sample 3 (E18885)** – Located directly beneath concrete pipes and other rubbish

## **9.0 QUALITY ASSURANCE / QUALITY CONTROL**

### **9.1 Sampling Procedure**

Surface samples to a depth of 150mm were recovered using stainless steel hand-operated equipment, which was cleaned between each sample to prevent cross-contamination. Samples were sealed in glass jars with Teflon-lined lids and stored in accordance with laboratory requirements. A total of three (3) individual samples were recovered and registered in our Tweed Heads South laboratory before being delivered to the NATA accredited Tweed Laboratory Centre on 11 August 2009 under chain of custody documentation.

Due to the low number of samples involved, field blanks and splits were not included in the investigation.

### **9.2 Laboratory Testing**

Laboratory quality assurance (QA) and quality control (QC) is detailed on the attached laboratory certificates (*see Appendix 4*). The QA/QC results indicate that the data is of sufficient quality to support the findings in this report.



## 10.0 RESULTS

The certificates of analysis and chain of custody documentation from Tweed Laboratory Centre are attached as Appendix 4. A summarised table of results is presented in Table 4 below.

**Table 4: Laboratory Results in mg/kg**

Analyte	Sample 1 (E18883)	Sample 2 (E18884)	Sample 3 (E18885)	HBIL (Residential)
TPH C6 – C9	<5	<5	<5	65 <sup>(1)</sup>
TPH C10 – C40	--	460	371	1000 <sup>(1)</sup>
Benzene	<0.2	0.2	<0.2	1 <sup>(1)</sup>
Toluene	<1	<1	<1	130 <sup>(1)</sup>
Ethyl Benzene	<1	<1	<1	50 <sup>(1)</sup>
Total Xylene	<2	<2	<2	25 <sup>(1)</sup>
Arsenic	<5	<5	<5	100 <sup>(2)</sup>
Cadmium	0.1	<0.1	<0.1	20 <sup>(2)</sup>
Chromium	<5	<5	<5	100 <sup>(2)</sup>
Copper	<5	<5	<5	1000 <sup>(2)</sup>
Lead	2	2	2	300 <sup>(2)</sup>
Mercury	<0.10	<0.10	<0.10	15 <sup>(2)</sup>
Zinc	<5	<5	<5	7,000 <sup>(2)</sup>

<sup>(1)</sup> HBIL values taken from Table 3 in 'Service Station Sites: Assessment and Remediation' guidelines, NSW EPA (1994).

<sup>(2)</sup> HBIL values taken from Column 1 'Residential' of the Health Based Investigation Levels (HBIL) contained in *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (2nd edition)*, NSW DEC (2006).

All species tested recorded results below their relevant HBIL for residential use. The majority of results were below the level of detection, with only trace amounts of lead (2 mg/kg), benzene (0.2 mg/kg) and TPH C10 – C40 (460 and 371 mg/kg) detected.

The results of the laboratory testing indicate that the site has not been exposed to unacceptable levels of hydrocarbons, BTEX or heavy metals.

## 11.0 DISCUSSION

The landuse history, field investigation and preliminary sampling regime have failed to identify any signs of contamination or potentially contaminating activities on the site. The only confirmed human installations on the site since 1947 are the service road and the drainage system. Recent human impacts on the site appear to be limited to the slashing of the 'residential' zoned area, the illegal dumping of rubbish and minor impacts from various recreational uses (i.e trail bike tracks).

No commercial operations have been shown to exist on the site at any time since 1947 when the earliest known historical photograph was taken. No activities are presumed to have occurred prior to this time as the site appears to be in a completely natural state in 1947.

The lack of any specific use for the site at any time up until the present is thought to be the result of several factors:

- The acidic, nutrient poor, sandy and often waterlogged environment is not well suited for agricultural use.
- Every owner since the 1960's is rumoured to have purchased the block with the intention of developing it. Economic, market and political factors have so far restricted such development.
- The zoning of the land has not permitted any industrial uses

There appears no evidence of fences (to allow livestock production) or cropping on any historical photographs, and therefore the use of herbicides and pesticides on the site would be extremely unlikely.

None of the potentially contaminating activities listed in Table 1 of SEPP 55 (EPA 1998) have been identified as part of the investigation, and with the exception of agriculture, the zoning of the land would not have permitted any such activities.

### 11.1 Potential Impacts

As with any development, there exists a possibility for soil contamination to occur as a result of the altered land use. However, any speculation or conjecture on the source of any future soil contamination is hypothetical and outside the scope of the investigation.

### 11.2 Mitigating Measures

No evidence of soil contamination was uncovered and therefore no mitigating measures are proposed.



## 12.0 CONCLUSION

During the course of the investigation no evidence was uncovered to suggest that potential contaminants had been applied to the subject site or that contaminating activities have occurred within its boundaries. However for assurance purposes it was decided that a preliminary sampling and analysis program be undertaken.

Soil testing of subject site using three (3) individual samples was undertaken to test for hydrocarbon pollutants and heavy metals. All species tested were found to be below their relevant HBIL's, with the majority of species undetectable.

Based on the scope of work undertaken and the results obtained, there appears to be no evidence of soil contamination at the subject site. From a contaminated land perspective, the site can be considered suitable for the proposed residential use, subject to the following recommendations being implemented:

- All illegally dumped rubbish be removed from the site and placed in an approved landfill facility.
- Should potentially contaminating or hazardous material be uncovered, at any time during construction works, these materials are to be isolated and classified prior to removal to landfill under the supervision of a qualified contaminated materials consultant.
- Any hazardous materials are to be documented, with a report made available to the relevant consent authority.

Recommendations set-out in this report are based on the information supplied at the time of assessment. Should information arise suggesting a contrary conclusion, then further testing and/or assessment may be required.

Should you require any further information or clarification please do not hesitate to contact the undersigned at this office.

Yours faithfully  
For and on behalf of  
**BORDER - TECH**

**Nathan Piper** B.Sc (Env)  
Environmental Scientist

### 13.0 REFERENCES

NSW Department of Environment and Conservation (DEC), 2006. *Guidelines for the NSW Site Auditor Scheme (2nd edition)*. NSW DEC.

Environment Protection Authority (EPA), 2000. *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*. NSW EPA.

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Morand, D.T. 1994. *Soil Landscapes of the Lismore – Ballina 1:100 000 Sheet*. Department of Conservation and Land Management.

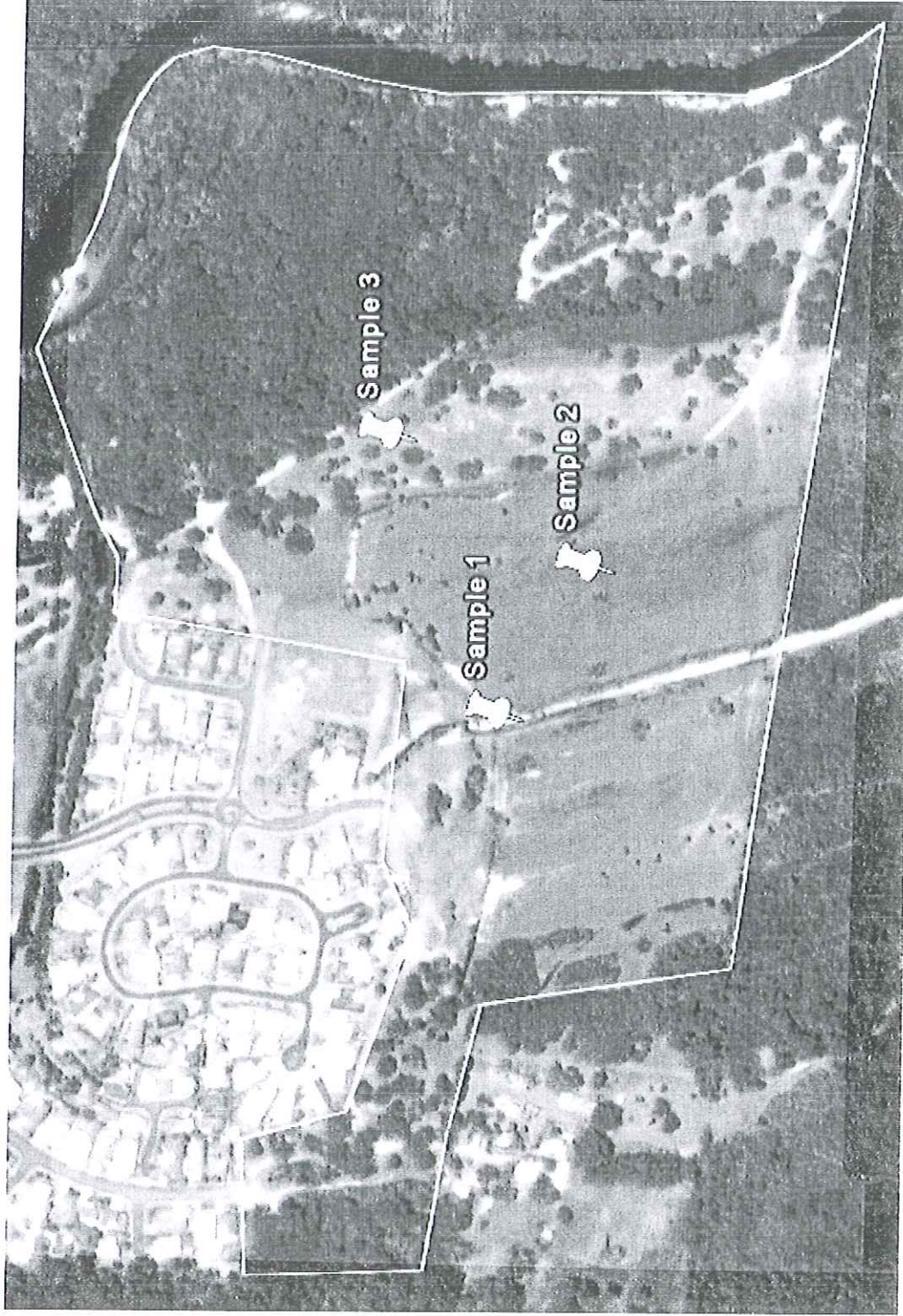
NSW Environment Protection Authority (EPA), 1994. *Service Station Sites: Assessment and Remediation*. NSW EPA.



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## **APPENDIX 1 – SITE PLAN**

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Note: Drawing not to scale - Diagrammatic only - Measurements are approximate only

<div data-bbox="1315 1789 1410 2152" data-label="Image"> </div> <div data-bbox="1410 1756 1474 2163" data-label="Text"> <p>Unit 10 Corporate House, 8 Corporation Circuit Tweed Heads South NSW 2486</p> </div>	<div data-bbox="1315 1330 1347 1700" data-label="Text"> <p>CLIENT: CODLEA PTY LTD</p> </div>	<div data-bbox="1315 501 1442 1084" data-label="Text"> <p>PROJECT: LOT 1 on DP871039 BAYSIDE BRUNSWICK ESTATE BRUNSWICK HEADS, NSW</p> </div>	<div data-bbox="1315 322 1442 456" data-label="Image"> </div> <div data-bbox="1315 98 1410 300" data-label="Text"> <p>JOB No: BT 19034-CL</p> </div> <div data-bbox="1426 98 1474 300" data-label="Text"> <p>SITE PLAN</p> </div>
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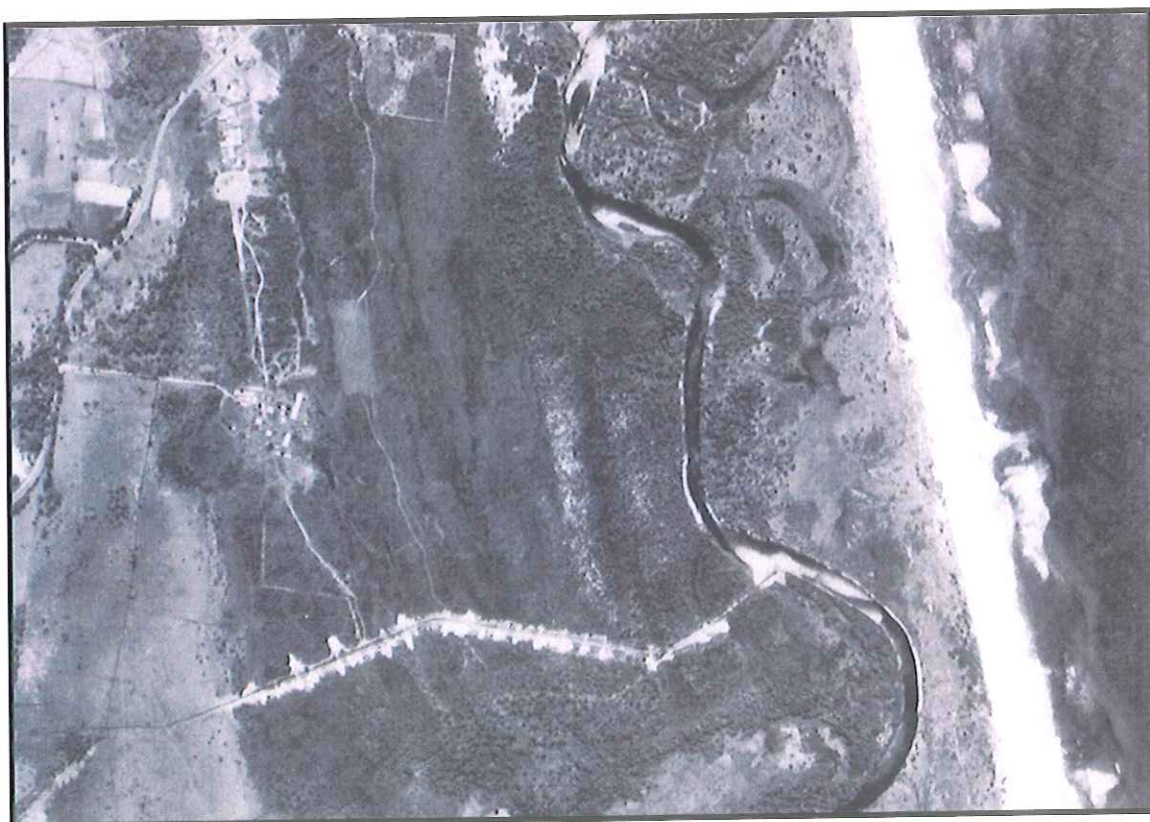
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## **APPENDIX 2 – HISTORICAL AERIAL PHOTOGRAPHS**

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***Figure 6: Aerial Photograph 1947 (Ref: Byron Bay. Run 2. 27/5/47)***



***Figure 7: Aerial Photograph 1966 (Ref: Unknown)***





**Figure 8: Aerial Photograph 1979 (Ref: Unknown)**



**Figure 9: Aerial Photograph 1987 (Ref: Ballina 1:40000, Run 1, 1/8/87)**





*Figure 10: Aerial Photograph 1993 (Ref: Unknown)*



*Figure 11: Aerial Photograph 2006 (Google Earth)*



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### **APPENDIX 3 – SITE PHOTOS**

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***Figure 12: Subject Site Facing South from Kingsford Drive***



***Figure 13: Subject Site Facing South-East from Kingsford Drive***





***Figure 14: View East Towards Proposed Environmental Protection Area***



***Figure 15: Tannin Stained Water Flowing into the Central Drain***

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## **APPENDIX 4 – LABORATORY CERTIFICATES**

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Laboratory Report No: sw LIMs No: 09/2517-O Page 1 of 4  
Client Name: Border-Tech  
Client Reference: Bayside Brunswick (BT 19034-CL)  
Contact Name: Nathan Piper No of Samples: 3  
Chain of Custody No: Attached Date Received: 11/08/2009  
Sample Matrix: Soil Date Reported: 28/08/2009

This Final Certificate of Analysis consists of sample results, QA/QC, method descriptions, laboratory definitions and internationally recognised NATA accreditation and endorsement. All samples were analysed as received. This report relates specifically to the samples as received. Results relate to the source material only to the extent that the samples as supplied are truly representative of the sample source. This document may not be reproduced except in full.

#### QUALITY ASSURANCE CRITERIA:

Accuracy:	matrix spike:	1 in first $\geq 20$ , then 1 every 20 samples	
	lcs, crm method:	1 per analytical batch	
	surrogate spike:	addition per target organic method	
Precision:	laboratory duplicate:	1 in first $\geq 10$ , then 1 every 10 samples	
Holding Times:	soils, waters:	VOC's 14 days water / soil SVOC's 7 days water, 14 days soil Pesticides 7 days water, 14 days soil	
	Confirmation:	target organic analysis:	GC/MS, or confirmatory column
	Sensitivity:	PQL:	Typically 2-5 x Method Detection Limit (MDL)

#### QUALITY CONTROL - GLOBAL ACCEPTANCE CRITERIA:

Accuracy:	spike, lcs, crm, surrogate:	general analytes 70% - 130% recovery phenol analytes 50% - 130% recovery organophosphorous pesticide analytes 60% - 130%	
	Precision:	method blank:	not detected >95% of the reported PQL
		duplicate lab RPD:	0 - 50% ( $>10 \times \text{PQL}$ ), 0 - 75% ( $4-10 \times \text{PQL}$ ) $\pm 2 \times \text{PQL}$ ( $<4 \times \text{PQL}$ )

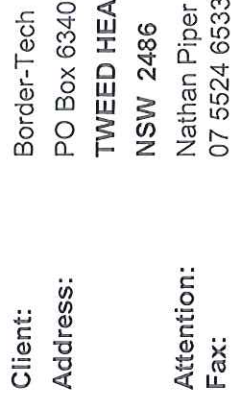
#### RESULT ANNOTATION:

PQL: Practical Quantitation Limit	ms: matrix spike recovery
LCS: Laboratory Control Standard	dup: laboratory duplicate
IS: Internal Standard	r: RPD relative % difference
SS: System Surrogate	mb: method blank

This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. Accreditation No: 12754



  
Jared Martin  
Laboratory Technician (NATA signatory)  
[jaredm@tweedlab.com.au](mailto:jaredm@tweedlab.com.au)



Client: Border-Tech  
Address: PO Box 6340  
TWEED HEADS SOUTH  
NSW 2486  
Attention: Nathan Piper  
Fax: 07 5524 6533  
Sample Description: Bayside Brunswick (BT 19034-CL) - Soil Samples

Laboratory Identification		09/2517-O-1	09/2517-O-2	09/2517-O-3	09/2517-O-1						
Sample Identification		E18883	E18884	E18885	E18883 (Dup)						
Sampling Date on COC		7-Aug-2009	7-Aug-2009	7-Aug-2009	7-Aug-2009						
Laboratory Extraction Date		18-Aug-2009	18-Aug-2009	18-Aug-2009	18-Aug-2009						
Laboratory Analysis Date		18-Aug-2009	18-Aug-2009	18-Aug-2009	18-Aug-2009						
Method	PQL										
ORG03 Moisture		20.2	21.2	2.2	20.4						
Results expressed in % w/w unless otherwise specified.											
ORG03: Moisture by Gravimetric Analysis.											





Client: Border-Tech  
 Address: PO Box 6340  
 TWEED HEADS SOUTH  
 NSW 2486  
 Attention: Nathan Piper  
 Fax: 07 5524 6533  
 Sample Description: Bayside Brunswick (BT 19034-CL) - Soil Samples

Page: 3 of 4  
 Final  
 Certificate  
 of Analysis  
 Date of Report: 28 August 2009

Laboratory Identification		09/2517-O-1	09/2517-O-2	09/2517-O-3					QC	QC	QC
Sample Identification		E18883	E18884	E18885					E18883 (Dup)	MB	LCS
Sampling Date on COC		7-Aug-2009	7-Aug-2009	7-Aug-2009					18-Aug-2009	18-Aug-2009	18-Aug-2009
Laboratory Extraction Date		18-Aug-2009	18-Aug-2009	18-Aug-2009					18-Aug-2009	18-Aug-2009	18-Aug-2009
Laboratory Analysis Date		18-Aug-2009	18-Aug-2009	18-Aug-2009					18-Aug-2009	18-Aug-2009	18-Aug-2009
Method	Volatile TPH										%
ORG08	C6-C9 Fraction	<5	<5	<5					<5	<5	118
TPH's											
ORG07	C10-C14	<25	<25	31					<25	<25	90
	C15-C28	<50	219	169					<50	<50	93
	C29-C36	<50	241	171					<50	<50	108
	Total C10-C36	--	460	371					--	--	--

Results expressed in mg/kg (ppm) unless otherwise specified.

ORG08: Extraction Purge & Trap. Analysis by GC/MS ORG07: Extraction DCM. Analysis by GC/FID.



Client: Border-Tech  
Address: PO Box 6340  
TWEED HEADS  
NSW 2486  
Attention: Nathan Piper  
Fax: 07 5524 6533

**Sample Description:** Bayside Brunswick (BT 19034-CL) - Soil Samples

Page: 4 of 4  
Final Certificate of Analysis

Laboratory Identification		09/2517-O-1	09/2517-O-2	09/2517-O-3					QC	QC	QC
Sample Identification		E18883	E18884	E18885					E18883 (Dup)	MB	LCS
Sampling Date on COC		7-Aug-2009	7-Aug-2009	7-Aug-2009							
Laboratory Extraction Date		18-Aug-2009	18-Aug-2009	18-Aug-2009					18-Aug-2009	18-Aug-2009	18-Aug-2009
Laboratory Analysis Date		18-Aug-2009	18-Aug-2009	18-Aug-2009					18-Aug-2009	18-Aug-2009	18-Aug-2009
Method	BTEX	PQL									%
ORG08	Benzene	0.2									
	Toluene	<0.2	0.2	<0.2					<0.2	<0.2	109
	Ethyl Benzene	<1	<1	<1					<1	<1	114
	meta-&para-Xylene	<1	<1	<1					<1	<1	102
	ortho-Xylene	<2	<2	<2					<2	<2	115
	4-Bromofluorobenzene	<1	<1	<1					<1	<1	96
	@ 4mg/kg	107	102	109					101	103	100
Results expressed in mg/kg (ppm) unless otherwise specified.											
ORG08: Extraction DCM. Analysis by Purge & Trap.											







[www.tweedlab.com.au](http://www.tweedlab.com.au)

**Client:** Border-Tech  
**Address:** PO Box 6340  
TWEED HEADS SOUTH  
NSW 2486

Page 1 of 2

**Attention:** James Dick  
**Copy To:** Fax:07 55246533 & N Piper

**Lims1 Report No:** 09/2517-C  
**Client Reference:** BT 19034-CL  
**Date of Report:** 27/08/2009

All pages of this Report have been checked and approved.  
This document may not be reproduced except in full.

<b>Taken By:</b>	Client	<b>No of Samples:</b>	3
<b>Date Taken:</b>	7/08/2009	<b>Date Testing Commenced:</b>	11/08/2009
<b>Date Received:</b>	11/08/2009	<b>Date Testing Completed:</b>	19/08/2009

**Sample Description:** Bayside Brunswick Soil Samples - Chemical

Sample/Site No	Sample/Site Description
1	E18883
2	E18884
3	E18885

**COMMENTS:**

Results refer to samples as received at the Laboratory.  
\* Tests not covered by NATA accreditation.



This document is issued in  
accordance with NATA's  
accreditation requirements.  
Accredited for compliance with  
ISO/IEC 17025.  
Accreditation No: 12754 & 13538

  
Dr Paul J Wright  
(Senior Technical Officer)  
[paulw@tweedlab.com.au](mailto:paulw@tweedlab.com.au)





Client: Border-Tech

Address: PO Box 6340

TWEED HEADS SOUTH

NSW 2486

Attention: James Dick

Lims1 Report No: 09/2517-C

Date Testing Completed: 19/08/2009

Date of Report: 27/08/2009

Sample Description: Bayside Brunswick Soil Samples - Chemical

Sample Identification:			1	2	3
Date Taken:			7/08/2009	7/08/2009	7/08/2009
Date Received:			11/08/2009	11/08/2009	11/08/2009
Date Testing Commenced:			11/08/2009	11/08/2009	11/08/2009
Test	Method	Units	09/2517-C/1	09/2517-C/2	09/2517-C/3
*Arsenic in Soil	M8	mg/Kg	<5	<5	<5
*Cadmium in Soil	M8	mg/Kg	0.1	<0.1	<0.1
Chromium in Soil	M8	mg/Kg	<5	<5	<5
Copper in Soil	M8	mg/Kg	<5	<5	<5
Lead in Soil	M8	mg/Kg	2	2	2
*Mercury in Soil	M8	mg/Kg	<0.10	<0.10	<0.10
Zinc in Soil	M8	mg/Kg	<5	<5	<5

**Company:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**As Above** \_\_\_\_\_

**Project Name:** Bayside Brunswick  
 \_\_\_\_\_

**Project Number:** BT 19034-CL  
 \_\_\_\_\_

**Results Required by:** \_\_\_\_\_  
 24 hours ☐ 48 hours ☐ 3 - 5 Day ☐ Other ☐

**Send Results to:** npiper@bordertech.com.au  
 \_\_\_\_\_



**Results to be provided by:** \_\_\_\_\_  
 Mail: ☐ Fax: ☐ Email: ☐

**Contact:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_  
**Fax:** \_\_\_\_\_

**Email:** \_\_\_\_\_

[illegible]

Relinquished by:	Nathan Piper	Date/Time:	11/13/09	Special Requirements (eg. OHS issues etc.)	*7 metal suite AS CALVERCUPID	Sample Receipt Advice (Lab Use Only)	<input checked="" type="checkbox"/>
Received by:		Date/Time:				All Samples Received in Good Condition	<input checked="" type="checkbox"/>
Relinquished by:		Date/Time:	11.13.09			All Documentation in Proper Order	<input checked="" type="checkbox"/>
Received by:	 G. BRACKWELL	Date/Time:	11.30		pls only send to email address above NOT INFO@BIO-RITE.TECH	Samples Received Properly Chilled	<input checked="" type="checkbox"/>
						Samples Received Within Recommended Holding Times	<input type="checkbox"/>

09/2517-C



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## **APPENDIX 5 – HBIL's**

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## APPENDIX II

### Soil investigation levels for urban development sites in NSW

Substance	Health-based investigation levels <sup>1</sup> (mg/kg)				Provisional phytotoxicity-based investigation levels <sup>2</sup> (mg/kg)
	Residential with gardens and accessible soil (home-grown produce contributing < 10% fruit and vegetable intake; no poultry), including children's day-care centres, preschools, primary schools, townhouses, villas (NEHF A) <sup>3</sup>	Residential with minimal access to soil including high-rise apartments and flats (NEHF D)	Parks, recreational open space, playing fields including secondary schools (NEHF E)	Commercial or industrial (NEHF F)	
	Column 1	Column 2	Column 3	Column 4	Column 5
<b>Metals and metaloids</b>					
Arsenic (total)	100	400	200	500	20
Beryllium	20	80	40	100	—
Cadmium	20	80	40	100	3
Chromium (III) <sup>4</sup>	12%	48%	24%	60%	400
Chromium (VI)	100	400	200	500	1
Cobalt	100	400	200	500	—
Copper	1,000	4,000	2,000	5,000	100
Lead	300	1,200	600	1,500	600
Manganese	1,500	6,000	3,000	7,500	500
Methyl mercury	10	40	20	50	—
Mercury (inorganic)	15	60	30	75	1 <sup>5</sup>
Nickel	600	2,400	600	3,000	60
Zinc	7,000	28,000	14,000	35,000	200
<b>Organics</b>					
Aldrin + dieldrin	10	40	20	50	—
Chlordane	50	200	100	250	—
DDT + DDD + DDE	200	800	400	1,000	—
Heptachlor	10	40	20	50	—
PAHs (total)	20	80	40	100	—
Benzo(a)pyrene	1	4	2	5	—
Phenol <sup>6</sup>	8,500	34,000	17,000	42,500	—
PCBs (total)	10	40	20	50	—
<b>Petroleum hydrocarbon components<sup>7</sup></b>					
> C16–C35 (aromatics)	90	360	180	450	—
> C16–C35	5,600	22,400	11,200	28,000	—
> C35 (aliphatics)	56,000	224,000	112,000	280,000	—
<b>Other</b>					
Boron	3,000	12,000	6,000	15,000	— <sup>8</sup>
Cyanides (complex)	500	2,000	1,000	2,500	—
Cyanides (free)	250	1,000	500	1,250	—



**Table 3. Threshold concentrations for sensitive land use: soils**

Analytes	Threshold concentrations <sup>a</sup> (mg/kg dry wt)	Sources
TPH <sup>b, c</sup> : C6+C9	65	see note <sup>d</sup>
TPH <sup>c</sup> : C10+C40 (C10+C14, C15+C28, C29+C40)	1,000	see note <sup>e</sup>
Benzene	1 <sup>f</sup>	ANZECC/NHMRC 1992
Toluene	1.4 <sup>g</sup> / 130 <sup>h</sup>	Netherlands 1994
Ethyl benzene	3.1 <sup>i</sup> / 50 <sup>j</sup>	Netherlands 1994
Total xylenes	14 <sup>k</sup> / 25 <sup>j</sup>	Netherlands 1994
Phenol	, <sup>l</sup>	, <sup>l</sup>
Total lead	300	ANZECC/NHMRC 1992
Benzo(a)pyrene	1	ANZECC/NHMRC 1992
Total PAHs <sup>m</sup>	20	ANZECC/NHMRC 1992

**N.B.** Scientifically justified alternative threshold concentrations may be acceptable.  
 Thresholds may be reviewed as new scientific information becomes available.

#### Explanatory notes for Table 3

**a** Refer to relevant source documents for details.

Definitions of terms used in discussion of Netherlands criteria (Denneman 1993) are:

- The maximum permissible concentration (MPC) is the 'concentration of a toxic substance that fully protects 95% of the species in an ecosystem\*.
- The intervention level represents 'a level where action is needed because impermissible risks may occur. It depends on other than chemical characteristics if action should take place immediately or not\*. In the case of ecological risk, the intervention level 'fully protects 50% of the species in an ecosystem\*.

Further information regarding MPCs and intervention levels may be found in Denneman & vanden Berg 1993.

The Netherlands sourced values in Table 3 refer to soil with 10% natural organic matter content. These threshold concentrations must be adjusted for the particular natural organic matter content of the specific site. The natural organic matter content in soil may be determined using the Walkley and Black Method, AS1289.D1.1+1977, *Determination of the Organic Matter Content of a Soil (Standard Method)*.

The threshold concentrations for ethyl benzene and xylenes to protect terrestrial organisms have been derived from aquatic toxicological data using equilibrium partitioning. Investigations have shown (Van Gestal & Ma 1993) that in the case of earthworms, toxicity is related to the pore water contaminant concentration. The LC<sub>50</sub> pore water concentrations for several compounds have been favourably compared with LC<sub>50</sub> aquatic toxicological data for fish.

The derivations of criteria adopted as threshold concentrations have not explicitly taken account of chemical mixtures. The potential impact of mixtures of chemicals should be assessed on a site-specific basis.

The potential for the generation of odours may mean that lower thresholds than those listed in Table 3 are required for volatile compounds.

**b** Total petroleum hydrocarbons

**c** Approximate range of petroleum hydrocarbon fractions: petrol C6+C9, kerosene C10+C18, diesel C12+C18 and lubricating oils above C18.

**d** The TPH C6+C9 threshold concentration, i.e. 65<sup>mg/kg</sup>, applies to soil containing 10% natural organic matter. This concentration has been calculated assuming the following:

- that there has been a fresh spill of petrol
- that the aromatic content of the petrol is 30%
- that the resultant BTEX soils concentrations are at their lower thresholds.



TPH C6+C9 concentrations above the relevant threshold may indicate that BTEX concentrations are above their thresholds. This threshold concentration should be interpreted as only an approximate potential indicator of contamination.

**e** The TPH C10+C40 threshold concentration is based on a consideration both of the Netherlands Intervention Level for the TPH C10+C40 range and on commonly reported analytical detection limits. The Netherlands intervention value is 5,000 mg/kg dry weight.

**f** A lower benzene threshold concentration may be needed to protect groundwater.

**g**, The toluene threshold concentration is the Netherlands MPC to protect terrestrial organisms in soil. This value was obtained by applying a USEPA assessment factor to terrestrial chronic No Observed Effect Concentration (NOEC) data. The MPC is an 'indicative\* value (VandePlassche *et al.* 1993; VandePlassche & Bockting 1993).

**h** Human health and ecologically based protection level for toluene. The threshold concentration presented here is the Netherlands intervention value for the protection of terrestrial organisms. Other considerations such as odours and the protection of groundwater may require a lower remediation criterion.

**i** The ethyl benzene threshold concentration is the Netherlands MPC for the protection of terrestrial organisms in soil. No terrestrial ecotoxicological data could be found for use in the Netherlands criteria derivation. Therefore, equilibrium partitioning has been applied to the MPC for water to obtain estimates of the MPC for soil. The MPC for water has been derived from aquatic ecotoxicological data (VandePlassche *et al.* 1993; VandePlassche & Bockting 1993).

**j** Human health based protection level for ethyl benzene or total xylenes as shown. The threshold concentration presented here is the Netherlands intervention value. Other considerations such as odours and the protection of groundwater may require a lower remediation criterion

**k** The xylene threshold concentration is the Netherlands MPC for the protection of terrestrial organisms in soil. No terrestrial ecotoxicological data could be found for use in the Netherlands criteria derivation. Therefore, equilibrium partitioning has been applied to the MPC for water to obtain an estimate of the MPC for soil. The MPC for water has been derived from aquatic ecotoxicological data. The concentration shown applies to total xylenes and is based on the arithmetic average of the individual xylene MPCs (VandePlassche *et al.* 1993; VandePlassche & Bockting 1993).

**l** Phenol contamination is not expected to be significant at service station sites. Phenol has been included in the analyte list because it is a potential constituent of waste oil. The potential impact of phenol should be evaluated on a site-specific basis. Phenol may have a significant impact on waters.

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## **APPENDIX 6 – TITLE SEARCH CERTIFICATES**

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# Department of Lands

*Land Administration & Management  
Property & Spatial Information*

Border-Tech  
P O Box 6340  
Tweed Heads South  
NSW 2486

[www.lands.nsw.gov.au](http://www.lands.nsw.gov.au)

1 Prince Albert Road  
Queens Square  
SYDNEY NSW 2000

GPO Box 15  
SYDNEY NSW 2001

DX 17 SYDNEY

16 July, 2009

Attention:- Nathan Piper

Search Reference: 342/2009  
Contact: David McDonald  
Phone 9228 6670  
Fax 9221 0612  
E Mail [david.mcdonald@lands.nsw.gov.au](mailto:david.mcdonald@lands.nsw.gov.au)

Dear Sir,

Subject Land:- Lot 73 in Deposited Plan 851902.

I refer to your facsimile dated 17 June 2009 and telephone calls with Stephen South of this office on 25 and 26 June, 2009 requesting a historical search of subject land from the Torrens Title Grant to date.

I also acknowledge your payment of \$550.00.

The historical search has identified the transfers and cancellations of title shown on the schedules provided.

Please quote the above search reference with any further correspondence.

Yours faithfully

Warwick Watkins  
Registrar General

Per 



# Historical Search of Lot 73 DP 851902.

Transfers and cancellations of title only

## Portion 154

TITLE REFERENCE	DEALING NUMBER	DATE REGISTERED	REGISTERED PROPRIETOR
VOL 1641 FOL 185	CROWN GRANT PORTION 154	15-9-1905	THE BANK OF NEW SOUTH WALES
	409534	13-10-1905	GEORGE ALBERT JAVIS FRANCIS ALBERT WAKELY WALTER AUGUSTINE McDONALD & LES JOSEPH PATRICK McDONALD AS TENANTS IN COMMON IN EQUAL SHARES
	A176557	4-6-1915	
	D840226	27-7-1948	
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 5886 FOLS 204 AND 205			
VOL 5886 FOL 204 & 250	G128837 (VOL 6883 FOL 126 NOT PART OF SUBJECTLAND)	13-8-1954	CHARLES HENRY HALE
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 7737 FOL 29 (FROM 204) & 30 (FROM 205)			
VOL 7737 FOL 29 & 30	L107838	17-6-1968	NORMAN REX CREIGHTON & LESLEY ANN CREIGHTON AS JOINT TENANTS
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 10874 FOL 155			
VOL 10874 FOL 155	L850661	6-3-1970	PAMELA RICHARDSON
	N499613	22-8-1973	KENNETH KINGSFORD, MARIE IRENE KINGSFORD, EDWARD WINSOR KINGSFORD, MARY BEATRICE KINGSFORD, & FREDERICK KINGSFORD AS TENANTS IN COMMON IN EQUAL SHARES
	S385387	7-4-1981	KENNETH KINGSFORD 1/5 SHARE, MARIE IRENE KINGSFORD 1/5 SHARE. EDWARD WINSOR KINGSFORD 1/5 SHARE, HARVEY WINSOR KINGSFORD 1/5 SHARE AS TENANTS IN COMMON
DP 706115 REGISTERED 20-7-1984 COMPUTER FOLIOS 2/706115 ISSUED			



# Historical Search of Lot 73 DP 851902.

Transfers and cancellations of title only

## Portion 215

TITLE REFERENCE	DEALING NUMBER	DATE REGISTERED	REGISTERED PROPRIETOR
VOL 1727 FOL 66	CROWN GRANT PORTION 215	18-9-1906	THE COLONIAL MUTUAL LIFE ASSURANCE SOCIETY LIMITED
	A512970	29-10-1919	WILLIAM ANDREW BACK
	C126984	14-6-1932	NORMAN FRAZER
	C961756 (Power of Sale)	6-11-1940	WILLIAM ANDREW BACK
	D220816	16-7-1943	FREDERICK WENTWORTH SMITH
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 6384 FOL 182			
VOL 6384 FOL 182	F635663 (VOL 6609 FOL 182 NOT PART OF SUBJECTLAND)	23-12-1952	ERNEST MITCHELL TOWERS
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 6609 FOL 185			
VOL 6609 FOL 185	Y436028 (VOL 7148 FOL 227 NOT PART OF SUBJECTLAND)	12-7-1956	DONALD ALEXANDER CASWELL
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 7149 FOL 196			
VOL 7149 FOL 196	J221988	13-7-1962	ROLIN WILLIAM JUDGE
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 8479 FOL 229			
VOL 8479 FOL 229	M17304	30-6-1969	PRINCESS PROPERTIES LIMITED
	M680013	28-5-1971	BILLINUDGEL PASTORAL COMPANY PTY LIMITED
FOLIO CANCELLED NEW CERTIFICATE ISSUED VOL 12989 FOL 151			

## Historical Search of Lot 73 DP 851902.

Transfers and cancellations of title only

Recorded	Number	Type of Instrument	C.T. Issue
VOL 12898 FOL 151	P621281	4-3-1976	COUNTRYSIDE (NO 3) PTY LTD
DP 706115 REGISTERED 20-7-1984 COMPUTER FOLIOS 2/706115 ISSUED			

### COMPUTER FOLIO 2/706115

Recorded	Number	Type of Instrument	C.T. Issue
23/7/1984	DP706115	DEPOSITED PLAN	FOLIO CREATED EDITION 1
20/1/1986	DP730006	DEPOSITED PLAN	RESIDUE REMAINS FOLIO CANCELLED
*** END OF SEARCH ***			

### COMPUTER FOLIO 36/730006

Recorded	Number	Type of Instrument	C.T. Issue
20/1/1986	DP730006	DEPOSITED PLAN	FOLIO CREATED EDITION 1
12/4/1988	DP771215	DEPOSITED PLAN	FOLIO CANCELLED
*** END OF SEARCH ***			

### COMPUTER FOLIO 344/771215

13/4/1988	DP771215	DEPOSITED PLAN	FOLIO CREATED EDITION 1
28/8/1989	Y567603	TRANSFER	COUNTRYSIDE (NO 3) PTY LIMITED
17/11/1989	Y710142	TRANSFER	GAOTEN PTY LIMITED
26/4/1991	Z610866	TSFR BY MTGEE-POWER OF SALE	CANPIP PTY LIMITED 100/200 & CONDELL INVESTMENTS PTY LIMITED 49/200 & ROGER ERIC BUCK 51/200 AS TENANTS IN COMMON
3/12/1991	E101457	TRANSFER	CONDELL INVESTMENTS PRT LIMITED 51/100 & ROGER ERIC BUCK 49/100 AS TENANTS IN COMMON
16/6/1994	U353910	TRANSFER	CODLEA PTY LIMITED
11/8/1995	DP851902	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS
*** END OF SEARCH ***			

### COMPUTER FOLIO 73/851902



## Historical Search of Lot 73 DP 851902.

Transfers and cancellations of title only

Recorded	Number	Type of Instrument	C.T. Issue
16/8/1995	DP851902	DEPOSITED PLAN FOLIO CREATED	EDITION 1
30/9/1997	DP871039	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS
*** END OF SEARCH ***			

### COMPUTER FOLIO 73/851902

Recorded	Number	Type of Instrument	C.T. Issue
30/9/1997	DP871039	DEPOSITED PLAN	FOLIO CREATED EDITION 1
13/4/2000	6715576	APPLN FOR REPLACEMENT CT	EDITION 2
*** END OF SEARCH ***			