coffey geotechnics
SPECIALISTS MANAGING THE EARTH

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Lot 112 DP1073791, Lyons Road, Sawtell NSW

Utila Pty Ltd

GEOTCOFH02467AA-AB
24 February 2009

Coffey Geotechnics Pty Ltd ABN 93 056 929 483
1/18 Hurley Drive Coffs Harbour NSW 2450 Australia

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SPECIALISTS MANAGING THE EARTH

24 February 2009

Utila Pty Ltd
c/o Geoff Slattery & Partners Pty Ltd
PO Box 8090
Coffs Harbour NSW 2450

Attention: Geoff Slattery

Dear Geoff

RE: Phase 1 Environmental Site Assessment of Lot 112 DP1073791, Lyons Road, Sawtell NSW

Coffey Geotechnics Pty Ltd is pleased to present our final report on the Phase 1 Environmental Site Assessment prepared for the proposed residential subdivision development located on Lot 112 DP1073791, Lyons Road, Sawtell NSW.

I draw your attention to the attached sheets entitled "Important Information About Your Coffey Environmental Site Assessment" which should be read in conjunction with this report.

I trust that this report meets with your requirements. If you require further information please contact the undersigned in our Coffs Harbour office on (02) 6651 3213.

For and on behalf of Coffey Geotechnics Pty Ltd

Andrew Ballard

Associate Environmental Scientist
Environmental Team Leader – Coffs Harbour

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EXECUTIVE SUMMARY

Coffey Geotechnics Pty Ltd (Coffey) was engaged by Utila Pty Ltd to undertake a Phase 1 Environmental Site Assessment (ESA) at Lot 112 DP1073791, Lyons Road, Sawtell NSW.

The objectives of the Phase 1 ESA was to identify potentially contaminating past and present activities at the site, provide assessment of site contamination, and provide recommendations for further assessment if considered appropriate. The Phase 1 ESA report provides supporting information on contamination issues to a development application to be assessed by the NSW Department of Planning. The Director Generals assessment requirements include the identification of any contamination on site and appropriate mitigation measures in accordance with the provisions of SEPP 55 – Remediation of Land.

At the time of Coffey's fieldwork in January 2009 the site was used for cattle grazing, with the only structure present being a cattle stockyard structure on the western central boundary of the site. During the site walkover several small piles of fill were observed in the northern portion of the site. The fill material consisted of building waste with bricks, concrete and steel piping observed. A stockpile of waste material was also observed mid slope within the central watercourse and included timber stumps, planks and metal guttering.

In brief, the site history prepared for Lot 112 shows that the Borsato family acquired the land in 1973. The site has predominately been cleared land since 1964. Recent past uses of the land, included cattle grazing and banana plantation cultivation from 1986 to 1997 on the central western section of the site and market gardening; tomato crops in the early 1970's and two crops of potatoes in the early 1980's. Some areas of the banana plantation overlapped with the former market garden areas.

Coffey Geotechnics collected a limited number of soil samples from the site to screen for potential contaminants of concern, including; metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc, and mercury), total recoverable hydrocarbons (TRH), , benzene toluene ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP's), organophosphorus pesticides (OPP's) and asbestos.

The results of the laboratory testing showed concentrations of contaminants of samples analysed were below the adopted soil investigation levels (SIL's) or below the laboratories limits of reporting (LOR). Sample A2 initially reported elevated levels of TRH, however, following further analysis this result was found to be related to degraded organic matter encountered in the low lying water logged soils and was not sourced from petroleum hydrocarbon compounds.

Low but detectable concentrations of OCP's were identified in the areas of the former banana plantation and market gardens. The results suggest that OCP pesticides had been used in these areas with low levels of residues remaining in surface soils. The concentrations had degraded to marginal concentrations well below the adopted SIL's. These areas are considered to have a low potential for contamination.

The Phase 1 ESA identified no areas of environmental concern (AECs) on the site. Based on the findings of the Phase 1 ESA, it is concluded that the site has a low potential for contamination and that additional Phase 2 Environmental Site Assessment is not required for this site.

1 INTRODUCTION

1.1 Background

The site, Lot 112, is a proposed residential subdivision and is located off Lyons Road, Sawtell NSW. Lot 112 is 38.78 Ha in area of which about 25 Ha has been cleared and is currently used for cattle grazing. The remaining land is dense bush land and was not included in this investigation.

It is understood that the works carried out in this investigation will assist in the assessment of a development application lodged with the NSW Department of Planning. Included as part of the Director General's assessment requirements for the project are the following:

6.1 *Contamination*, Identify any contamination on site and appropriate mitigation measures in accordance with the provisions of *SEPP 55 – Remediation of Land;*

6.2 *Acid Sulfate Soils*, Identify the presence and extent of acid sulfate soils on the site and, where relevant, appropriate mitigation measures;

6.4 *Geotechnical*, Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.

The geotechnical and acid sulphate soils (ASS) investigations were carried out concurrently with this Phase 1 ESA. The results of the geotechnical and ASS investigation are provided under a separate cover. Reference for this report is GEOTCOFH02467AA-AC.

1.2 Phase 1 Environmental Site Assessment Objectives

The objectives of the Phase 1 ESA was to identify potentially contaminating past and present activities at the site, provide assessment of site contamination, and provide recommendations for further assessment if considered appropriate.

Coffey Geotechnics scope of works completed for the Phase 1 ESA included:

- Comprehensive site history study of the site comprising:
    - A review of historical aerial photographs to determine any changes in landuse or activities within the site over time;
    - A titles search for past site owners, a dangerous goods search and inspection of Coffs Harbour City Council records to determine previous approved development and site uses;
    - Interviews with site owners to assist in the location of historical uses of the land on Lot 112;
    - A search of groundwater bores and a search of NSW EPA website for listed properties; and
    - A site walkover of the site was undertaken to help confirm site history details and gain a better understanding of the past activities, inspect areas of interest identified from the search of air photographs, to check for features which may indicate potential contamination and to assist in identifying areas of environmental concern (AEC) that may warrant further investigation.

- Collection of a limited number of soil samples for screening purposes.
    - For larger parcels of land sampling frequency can become a cost limiting factor as when the size of the investigation area increases so does the required number of sample locations. The cleared land in the investigation for Lot 112 is 25Ha. To systematically investigate all of this area using the minimum sampling points provided in Table A of the NSW EPA (1995) Sampling Design Guidelines would require the collection of soil samples from more than 275 locations. For the purposes of this preliminary investigation Coffey has collected a reduced number of samples to allow for screening for potential contaminants of concern;
    - A limited number of soil samples (30 primary samples and 4 quality control samples) were collected using hand tools. The samples were analysed for screening purposes to identify potential contaminants in soil. Samples were collected from surface soils to about 150mm depth (24 primary samples), with a subset of 6 primary samples collected from 500mm depth, in general accordance with standard industry protocols. Sampling equipment was decontaminated between sample locations to avoid cross contamination;
    - Soil samples were submitted to a NATA accredited chemical laboratory for testing for a common suite of contaminants including:
        - Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc) (30 primary samples);
        - Total recoverable hydrocarbons (TRH) (30 primary samples);
        - Benzene toluene ethylbenzene and xylene (BTEX) compounds (30 primary samples);
        - Organochlorine and organophosphorus pesticides (OCP/OCPs) (30 primary samples);
        - Polycyclic aromatic hydrocarbons (PAH) (15 primary samples);
        - Asbestos (15 samples); and
        - Total petroleum hydrocarbons (TPH) silica gel cleanup (1 primary sample).
    - The laboratory results were evaluated by comparison with the below listed guidelines and soil investigation levels adopted for this ESA. Any results which exceed the nominated investigation criteria have been highlighted and discussed in section 4.4 of this report.

The work was carried out with reference to the following guidelines:

- DUAP EPA Managing Land Contamination Planning Guidelines, SEPP 55 – Remediation of Land, 1998;
- NEPM Guideline on Investigation Levels for Soil & Groundwater, 1999,
- NSW DEC Guidelines for the NSW Site Auditor Scheme (2nd ed), 2006;
- NSW EPA Guidelines for Assessing Banana Plantation Sites, 1997.
- NSW EPA Guidelines for Consultants Reporting on Contaminated Sites, 1997; and
- NSW EPA Guidelines for Assessing Service Station Sites, 1994.

2 BACKGROUND INFORMATION

2.1 Site Description

Lot 112 is located south of Lyons Road, Sawtell NSW. A site locality plan (Figure 1) and site sampling plan (Figure 2) are attached.

The site is typified by gently to moderately sloping hills and creek beds that drain towards the lower lying estuarine creek system of Bonville Creek approximately 180m south of the site. Topographically, the site is situated in an area of undulating topography and is located on the crest and slopes of a low rise ridge line which generally trends in a southeast-northwest direction. Within the site four distinct water courses were observed which drain water from the site. Two broad concave watercourses were located to the north and northeast of the ridge which directed drainage towards the southeast and north respectively. Two smaller watercourses were also located to the southwest and southeast of the ridge, these watercourses directed drainage towards the southwest and east of the site respectively. The low lying areas at the base of the two larger watercourses had heavily water logged soils and reedy vegetation. A dam was located in the northeast area of the site which received flow from the two larger watercourses.

There are no existing buildings located onsite and the site is currently used for cattle grazing purposes. A cattle stockyard was located on the western central boundary of the site. During the site walkover several small piles of fill were observed in the northern portion of the site to the west of the dams, see photo 1 below. The fill material consisted of building waste with bricks, concrete and steel piping observed.

Photo 1 – Imported fill piles of building waste located in the north east of the site, view is towards the east

A stockpile of waste material was also observed mid slope within the central watercourse and included timber stumps, planks and metal guttering.

The site is bounded by cleared land and residential allotments to the north, bushland to the west and south and Melaleuca “paperbark” forest to the east and south west of the site. Lyons Road was located approximately 180m north of the site, parallel to the northern boundary of Lot 112.

Vegetation on the site was predominantly established medium length grass cover with scattered trees bordering the banks of the small creeks and semi dense paperbark forest around the dam. Along the eastern portion of Lot 112 was dense bushland and paperbark forest, this forested area was excluded from the investigation.

At the time of fieldwork on the 7th and 8th January 2009 earthworks activity was underway adjacent to the central western boundary of the site. The earthworks are discussed in more detail in the geotechnical report; reference number GEOTCOFH02467AA-AC.

2.2 Geology

The 1:250,000 Geological Map of Dorrigo-Coffs Harbour indicates the site to be underlain by both Quaternary Alluvium and the Brooklana Formation. Quaternary alluvium generally comprises clay, silt sand and gravel and the Brooklana formation comprises siliceous mudstone and siltstone rock types. Generally the low lying areas are underlain by Quaternary Alluvium which in turn is underlain by the Brooklana Formation. The soils on the hillslopes and ridgelines comprise clay soils which grade to rock types of the Brooklana Formation.

The Acid Sulfate Soils Risk Map of Coffs Harbour indicates that the east and north east sections of the site is located on an area of low probability of acid sulfate soils between 1m and 3m below ground surface.

The subsurface conditions encountered on the site can be broadly broken into two areas, subsurface conditions within the watercourses and subsurface conditions within the hillslopes.

The subsurface conditions within the watercourses can generally be described as follows:

- **Topsoil:** Silty Clay, medium plasticity, dark grey/brown some fine roots/organics to about 0.2m depth, overlying;
- **Alluvial/Colluvial Soil:** Silty Clay, medium to high plasticity, firm, dark grey to pale grey/grey, traces of gravel fine to medium, subrounded up to 1.5m deep, overlying,
- **Residual:** Silty Clay, medium to high plasticity, grey mottled dark orange/ dark yellow/ pale brown/ white, some gravel fine to medium grained (quartz and siliceous mudstone) to beyond the depth of investigation.

The subsurface conditions within hillslopes can generally be described as follows:

- **Topsoil:** Silty Clay, medium plasticity, dark grey/brown some fine roots/organics to about 0.2m depth, overlying;
- **Residual:** Silty Clay, medium to high plasticity, grey mottled orange/yellow to beyond the depth of investigation.

2.3 Hydrology

Based on the topography of the site and surrounding area it appears that the site drains predominantly by way of overland flow following the natural contours of the land to the south-west of the site. At the time of fieldwork the two small creeks had shallow stagnant water, no flow was observed.

A search of the NSW Department of Water and Energy groundwater bore information indicated that there was five bores within a 500m radius of the site. The information on the bores is summarised in Table 1 below.

Table 1: Summary of Groundwater Bore Information

Bore Number	Authorised Use	Total Depth of Bore (m)	Distance*, Direction & Gradient* from Site	Standing Water Level (m)	Water Bearing Zones (m)
GW065923	Industrial	30.0	180m, N, UG	-	14.0 – 18.0 18.0 – 40.0
GW304168	Domestic Stock	67.0	240m, E, UG	-	ND
GW071184	Domestic	91.50	300m, E, UG	6.0	32.0 – 36.0
GW067504	Domestic Stock	31.0	500m, SE, DG	-	9.0 – 28.0
GW301524	Domestic	61.0	500m, SSW, DG	9.0	37.0 – 42.0 54.0 – 59.0

Notes: N = north, S = south, W = west, E = east, DG = down-gradient, UG = up-gradient, ND = No Details. Distances are approximate and gradients are inferred.

3 SITE HISTORY

3.1 Historical Information

3.1.1 NSW WorkCover Dangerous Goods Records

WorkCover Dangerous Goods Licensing Records were searched. No records pertaining to the site were available for review.

3.1.2 Coffs Harbour City Council Records

Records were viewed from the Coffs Harbour City Council on the 12 January 2009. The records viewed related to a Development Application (DA) for the current proposed residential subdivision and DA's for the existing residential subdivision to the north of the site.

The records also showed an overview of the site with the area of a former banana plantation highlighted as a potential contamination area. No other information was available in regards to the banana plantation.

3.1.3 Interviews

Coffey Geotechnics contacted Adrian and Sebastian Borsato, representatives of the current landowner family, for information on past farming activities. They stated the following for the site:

Adrian Borsato:

- Indicated that the banana plantation was established in 1986 and was cultivated until 1997. Also recalls that the family had grown potato crops on the site, but was unsure on timeframes.

Sebastian Borsato:

- Indicated that two crops of potatoes (successively over 2 years) had been grown in the early 1980's. Also can remember some tomato crops grown on the property by the land's previous owners in the early 1970's. An irrigation pump was used to water these crops from the dam which is located in the northern central section of the site.

3.1.4 NSW EPA Notices

A review of the NSW EPA website database on 15 December 2008 revealed that no notices have been issued for the site under the *Environmentally Hazardous Chemicals Act (1985*) and the *Contaminated Land Management Act (1997).*

3.1.5 Land Titles Search

Title searches were carried out by Advance Legal Search in December 2008 for Lot 112 DP 1073791.

- The title searches state that the Borsato family has owned the site since 1973.
- Prior to 2004 Lot 112 was known as Lot 3 DP 1065589 and appeared to be of similar size. Prior to 2004 Lot 3 was part of Lot 12 DP 558661, which incorporated a small parcel of land to the north of the lot. In the 1988 – 2003 section Giovanna Borsato was stated as having an occupation as a banana grower, which corresponds with the area of banana plantation observed in the 1994 aerial photograph.
- Prior to 1973 Lot 3 was owned by Enzo Carraro (produce merchant) and Constance Carraro. Lot 3 was known as Lot 1 DP 554819 prior to 1972 and appeared to be of similar size to Lot 3. Prior to 1972 Lot 1 was known as Lot 1 DP 550769, which incorporated a small parcel of land to the north east of the lot.
- Prior to 1971 Lot 1 DP 550769 was owned by Dixon Stanley Anderson, farmer and before 1971 was known as Lot 1 DP 538350 and appeared to be of similar size to Lot 1 DP 550769. Prior to 1970 James Arthur Worland (farmer) owned, Lot 1 DP 538350 with Dixon Stanley Anderson. Prior 1970 Lot 1 was known as Lot 2 DP 534356 and was owned by Dixon Stanley Anderson. Prior to 1969 Lot 2 was known as Part Portion 154 Parish Bonville (175 acres). The property was leased to Keith Neville Short, farmer from 1960 – 1969. Prior to 1958 Part Portion 154 covered a larger area (333 acres).
- Prior to 1947 Ann Sarah Carmady, widow and Clarence Harold Carmady, forester owned Part Portion 154.
- Prior to 1947 Part Portion 154 was owned by George Bower, farmer.

- Prior to 1946 Part Portion 154 was owned by the Union Trustee Company of Australia Limited, Milford Graham Wilson, medical practioner and Bruce Compton Wilson, grazier.
- Prior to 1946 Part Portion 154 was owned by Charles Stanley Wentworth Wilson, grantee.
- Prior to 1933 Part Portion 154 was Crown land.

3.1.6 Review Aerial Photography

A review of historical aerial photographs of the site dating from 1954 to 2002 was carried out. A summary of the site in each photograph from 1954 onwards is provided in Table 2 below.

Table 2: Summary of Aerial Photographs

Year	Lot 112 DP 1073791	Surrounding Land
1954	Photograph is in black and white. The site is predominately covered in dense bushland. No structures are present on the site. Small cleared patches in the north east and north west corners of site. Large dam on the central northern boundary of the site.	Dense bushland to south, east and west. Cleared grazing land and bushland to the north with a residence to the north east. Lyons road is present.
1964	Photograph is in black and white. The site has been extensively cleared. Dense bushland still present along the eastern boundary and southern section of the site. Some patchy trees within the watercourse to the south west of the dam. Two small creeks appear to present one within the central watercourse and the other in the north west of the site.	Clearing of bushland to the north and south of the site.
1973	Photograph is in black and white. There appears to be some potential market gardening in the central east and central west section of the site. Bushland in the southern section of the site appears to have a denser cover.	Extensive clearing to the west and north west. Bushland to the south of the site appears to be denser in cover.
1984	Photograph is in black and white. The bushland in the southern section of the site has been predominately cleared with a small patch of dense bushland remaining.	Extensive bushland regrowth of the land to the west of the site. Bushland to the south and south east appears to have been logged. One large structure has been constructed to the north and 4 smaller structures further north. They appear to be shade housing related to the former nursery.
1994	Photograph is in colour. Banana plantation has been established in the west of the site on the north east slope of the ridge. The	Minor clearing to the north of the site and appears to have been another shade house constructed to the east of the large shade

	patch of dense bushland in the southern section of the site has been cleared.	house.
2002	Photograph is in colour. The banana plantation has been removed with no visible remanets of the plantation remaining.	The nursery to the north of the site has been removed and the land subdivided into residential allotments. The bushland surrounding to the east, south and west appears to be denser in cover.

4 FIELD INVESTIGATIONS

4.1 Soil Sampling

Fieldwork was carried out on the 7, 8 and 12 January 2009 by Coffey Geotechnics Environmental Scientists.

Soil samples were collected in a grid sampling pattern at both surface (<150mm) (19 samples) and depth (500mm) (6 samples). Five (5) additional samples were collected, four from within the area of the former banana plantation and one down gradient of a waste material stockpile mid slope within the northern watercourse, identified in the site walkover. Sample location C5 was moved from the original grid pattern approximately 75m south as the earthworks then in progress overlapped the sample point location of the grid; this sample is reported as C5.5 to reflect this change.

Surface soil samples were collected from surface (<150mm) and hand auger samples to a depth of 500mm below ground surface (bgs). The approximate soil sampling locations are shown on Figure 2.

Each sample was placed in a clean 250ml glass jar supplied by the laboratory. Soil samples for ACM (asbestos) testing were placed in zip lock plastic bags. A new pair of disposable nitrile gloves was used to collect each sample. The geo pick and hand auger was decontaminated between each sample location by brush scrubbing with potable water, then with phosphate free detergent (Decon 90™) and was finally rinsed with potable water.

Samples were stored in a chilled insulated container during fieldwork and transport to the laboratory. Duplicate samples were collected at a rate of one per ten samples and triplicate samples were collected at a rate of one per twenty samples.

4.2 Soil Investigation Levels (SILs)

In order to assess the potential for contamination in soils on the site, the results of laboratory soil analyses were compared with guidelines values in the following references:

- NSW DEC (2006) Guidelines for the NSW Site Auditor Scheme (2nd edition); and
- NSW EPA (1994) Guidelines for Assessing Service Station Sites.

Table 3: Soil Investigation Levels (SILs) Adopted, (mg/kg)

Contaminants of Concern	NSW DEC 06 Residential (NEHF A)	NSW EPA 1994	SIL Adopted
Heavy Metals			
Arsenic	100	-	100
Cadmium	20	-	20
Chromium (Total)	100	-	100
Copper	1,000	-	1,000
Lead	300	300	300
Mercury	15	-	15
Nickel	600	-	600
Zinc	7,000	-	7,000
Polycyclic Aromatic Hydrocarbons			
PAH	20	20	20
Benzo (a) Pyrene	1	1	1
Monocyclic Aromatic Hydrocarbons			
Benzene	-	1	1
Toluene	-	1.4	1.4
Ethyl Benzene	-	3.1	3.1
Xylenes Total	-	14	14
Total Recoverable Hydrocarbons			
C6 – C9	-	65	65
C10 – C24	-	-	-
C15 – C36	-	-	-
C29 – C36	-	-	-
C10 – C36 (Total)	-	1,000	1,000
Organochlorine and Organophosphorus			
Aldrin + dieldrin	10	-	10
Chlordane	50	-	50
DDT + DDD + DDE	200	-	200
Heptachlor	10	-	10

The NSW DEC (2006) Guidelines for the NSW Site Auditor Scheme summarises the National Environmental Health Forum (NEHF) investigation levels[1] for protection of human health for different land uses.

In adopting these guidelines as SIL it is understood that a new residential subdivision is proposed for the site. The guideline levels for residential with gardens and accessible soil (home grown produce <10% fruit and vegetable intake: no poultry), including children's day-care centres, preschools, primary schools, townhouses, villas. Such land uses are considered to representative of the proposed future use of this site.

The NSW EPA (1994) guidelines provide acceptable cleanup levels at service station sites that are to be redeveloped for a sensitive use such as residential. The NSW EPA also recommends the use of these guidelines for assessing hydrocarbon contaminants for sites with less sensitive land uses. These levels are adopted as SIL for this investigation.

4.3 Quality Assurance/Quality Control

Samples were transported under chain of custody conditions and in chilled insulated containers to mgt Environmental Consulting Pty Ltd and SGS Pty Ltd laboratories which are NATA accredited for the analysis performed. A copy of the chain of custodies is included with the laboratory test results in Appendix B.

The laboratory conducted internal quality control using laboratory duplicates, spikes and method blanks. The results are shown with laboratory report sheets in Appendix B and a Data Validation Report is presented in Appendix C. Analytical methods used for the laboratory testing are also indicated on the laboratory report sheets. The results of laboratory quality control testing are considered to be within acceptable limits.

For QA/QC purposes 3 duplicate and 1 triplicate soil samples were tested. These QA/QC samples collected during field work were analysed for metals (arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury), total recoverable hydrocarbons (TRH), benzene toluene ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), organochlorine pesticides (OCP's), and organophosphorus pesticides (OPP's).

All relative percentage differences (RPDs) for samples were within the control limit of 50%. One wash blank sample, one trip spike and trip blank samples were also analysed. The results of these analyses were also within acceptable limits.

Inconsistent results were found between triplicate pair D5 / QC6 for copper and nickel. These inconsistent results were attributed to different limits of reporting (LOR) used by each laboratory.

[1] In Imray and Langley (1996). Health Based Soil Investigation Levels. (IN: The Health Risk Assessment and Management of Contaminated Sites – Proceedings of the Third National Workshop on the Health Risk Assessment and Management of Contaminated Sites. Contaminated Sites Monograph Series No.5, 1996. South Australian Department of Health and Family Services/Commonwealth

Based on the above assessment it is considered that the field and laboratory methods are appropriate and that the data obtained is usable and considered to reasonably represent the concentrations at the sampling points at the time of sampling.

4.4 Comparison of Results to SIL's

The laboratory test results for soil samples analysed for the current investigation are summarised in Table 5. Comparison of soil concentrations to the SILs discussed in Section 4.2 is as follows:

- Concentrations of TPH C_6-C_9 were below the adopted SIL and the laboratory LOR in each sample tested;
- Surface sample A2 exceeded the adopted SIL of 1,000mg/kg for concentrations of TRH C_{10}-C_{36} recording a concentration of 1,550 mg/kg. The laboratory analysis shows that this result was made up of the TRH fractions, TRH C_{10}-C_{14} 1,000 mg/kg, TRH C_{15}-C_{28} 350mg/kg and TRH C_{29}-C_{36} 200mg/kg.

  It was decided to test sample A2 to establish what proportion of the reported hydrocarbons were petroleum hydrocarbons.

  - Sample A2 was re-analysed for TPH following a silica gel cleanup. The laboratory analysis showed concentrations of TPH C_{10}-C_{36} were recorded below the laboratory's LOR.
- For the remaining soil samples concentrations of TRH C_{10}-C_{36} were recorded below the adopted SIL's and the laboratory's LOR in each sample analysed;
- Concentrations of PAH and BTEX were recorded below the adopted SIL's or the laboratory's LOR in all samples analysed;
- Concentrations of OPP were recorded below the adopted the laboratory's LOR in all samples analysed;
- Concentrations of OCP's were recorded below the LOR in samples analysed, except samples E10, C10, D9, C8, C5.5, G6 and E4. In these samples the OCP concentrations were recorded marginally above the LOR but less than the adopted SIL's. The analytes with values above the LOR are as follows:
  - Chlordane recorded concentration ranging from 0.1 mg/kg to 0.4 mg/kg in samples D9, E4, E10 and G6
  - Heptachlor epoxide recorded concentration of 0.11 mg/kg (C10) and 0.07 mg/kg (D9).
  - Methoxychlor recorded concentrations ranging from 0.07 mg/kg to 0.16 mg/kg
- Concentrations of metals were recorded below the adopted SIL's in each sample tested; and
- Asbestos was not detected in the 15 samples analysed.

The laboratory analytical results indicate that with the exception of total recoverable hydrocarbons that the concentrations of contaminants were within the SIL's values specified for the site. The re-analyse of A2 for TPH gel silica cleanup identified that the elevated levels were not petroleum hydrocarbon compounds. Low but detectable concentrations of OCP's were also identified however below the SIL's values specified for the site. The results are discussed in more detail in Section 5.

5 DISCUSSION

The laboratory test results showed concentrations of contaminants were below the adopted SIL's or below the LOR for all samples analysed. Based on the findings of the Phase 1 ESA it is considered that the site has a low potential for contamination.

The elevated levels of TRH (1,550 mg/kg) encountered in sample A2 were representative of the concentrations of C_{10}-C_{36} petroleum hydrocarbons. The NEPM Guidelines recognise that interference can occur in samples and that an accurate result for TPH (C_{10}-C_{36}) analysis require sample cleanup to remove non-petroleum hydrocarbon compounds, such as animal or vegetable based oils, fats and organic matter. A TPH silica gel cleanup analysis was undertaken on sample A2. The laboratory test showed that the concentrations of TPH were below the LOR, indicating that the elevated levels identified in the TRH analysis were that of natural occurring organic matter within the low lying water logged soils and not petroleum hydrocarbon contamination.

The results also identified low but detectable concentrations of OCP's (methoxychlor, chlordane and heptachlor epoxide) in samples E10, C10, D9, C8, C5.5, G6 and E4. These samples were collected from areas were within the former banana plantation and market gardens on the site.

Methoxychlor, chlordane and heptachlor epoxide were historically used during the 1960's – early 1970's as pesticides for insect control during horticultural activities and have since been banned from use. OCP's are of concern as they can persist in the environment for long periods of time. OCP's will degrade over time and the persistence of OCP's is described by the term half-life, which is the time required for the concentration of the chemical to reduce by half. Chlordane and heptachlor epoxide have a half life of between 5-12 years. The compound heptachlor metabolises in soil to form heptachlor epoxide (half-life 0.75-2 years). The reported concentrations of heptachlor were below the LOR and suggest that these chemicals have not been applied recently. These chemicals discussed above will continue to degrade over time.

The levels of methoxychlor, chlordane and heptachlor epoxide encountered during laboratory testing indicate that the concentrations are at levels only marginally above the LOR and are well below the adopted SIL's. These concentrations will continue to degrade over time and are considered to have a low potential for contamination.

6 AREAS OF ENVIRONMENTAL CONCERN (AEC)

No Areas of Environmental Concern (AECs) were identified based on the site history and the reported results from the analysis of samples collected from this site.

7 CONCLUSIONS AND RECOMMENDATIONS

The Borsato family has owned Lot 112 since 1973. Recent past uses of the land, included use for cattle grazing and it appears that from the late 1986 to late 1997 a banana plantation was cultivated on the central western section of the site on the north east side of the ridge line. It appears from the 1973 aerial photograph that some market gardening was undertaken in the central east and central west section of the site and the 1994 aerial photograph shows a banana plantation present of the northern side of the central watercourse. It was indicated in interviews that tomatoes crops had been active within in the site in the early 1970's and two crops of potatoes growing in the early 1980's.

The results of the laboratory testing showed concentrations of contaminants of samples analysed were below the adopted SIL's or below the laboratories LOR. The elevated levels of TRH identified were found to be related to degraded organic matter encountered in the low lying water logged soils and not petroleum hydrocarbon compounds. The low but detectable concentrations of OCP's indicated that some pesticides had been used within the areas of previous horticultural activities. The chemicals had however degraded to concentrations well below the adopted SIL's. These areas are considered to have a low potential for contamination.

Based on the findings of the Phase 1 ESA no areas of environmental concern (AECs) were identified. It is concluded that the site has a low potential for contamination and that additional Phase 2 Environmental Site Assessment is not required for this site.

8 REFERENCES

DUAP EPA Managing Land Contamination Planning Guidelines, SEPP 55 – Remediation of Land, 1998

NEPM Guideline on Investigation Levels for Soil & Groundwater, 1999

NSW DEC Guidelines for the NSW Site Auditor Scheme (2nd ed), 2006

NSW EPA Guidelines for Assessing Banana Plantation Sites, 1997.

NSW EPA Guidelines for Consultants Reporting on Contaminated Sites, 1997

NSW EPA Guidelines for Assessing Service Station Sites, 1994

9 LIMITATIONS

The findings contained in this report are the result of discrete/specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the past and present uses of the site. Under no circumstances, however, can it be considered that these findings represent the actual state of the site at all points.

This report does not address issues relating to potentially hazardous building materials or services which may be present on the site. This report does not address geotechnical issues at the site.

This report is to be read in conjunction with enclosed information sheet “Important Information About Your Coffey Environmental Site Assessment”.

For and on behalf of Coffey Geotechnics Pty Ltd

Andrew Ballard

Associate Environmental Scientist
Environmental Team Leader – Coffs Harbour

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Important information about your **Coffey** Environmental Site Assessment

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 environmental site assessment 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).

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.

Your report will only give preliminary recommendations

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

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Important information about your **Coffey** Environmental Site Assessment

Your report is prepared for specific purposes and persons

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

Interpretation by other professionals

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

Data should not be separated from the report

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

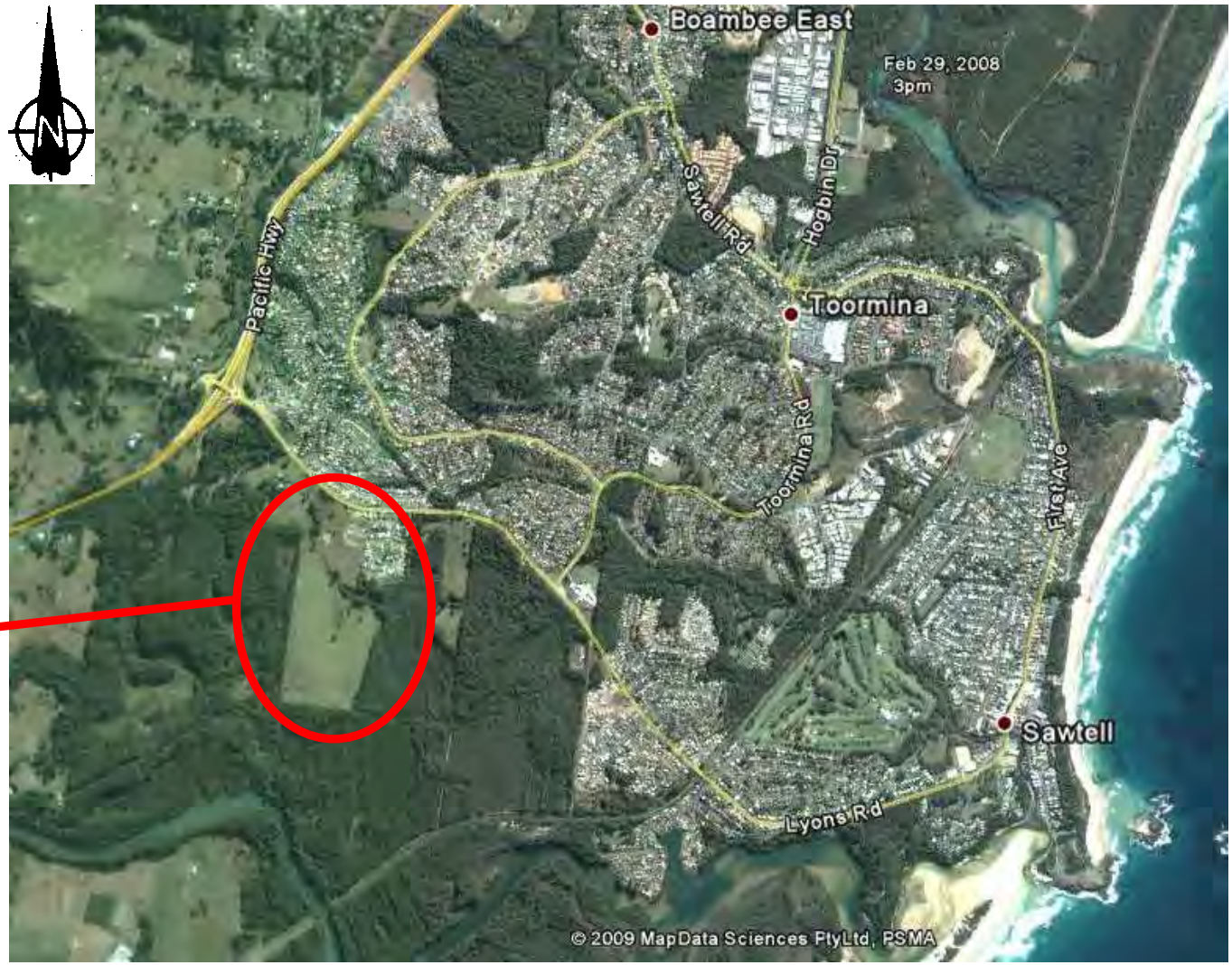
Contact Coffey for additional assistance

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

Responsibility

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

Figures



Sourced from Google Earth

drawn	**ST**
approved	
date	**24/02/09**
scale	
original size	**A4**

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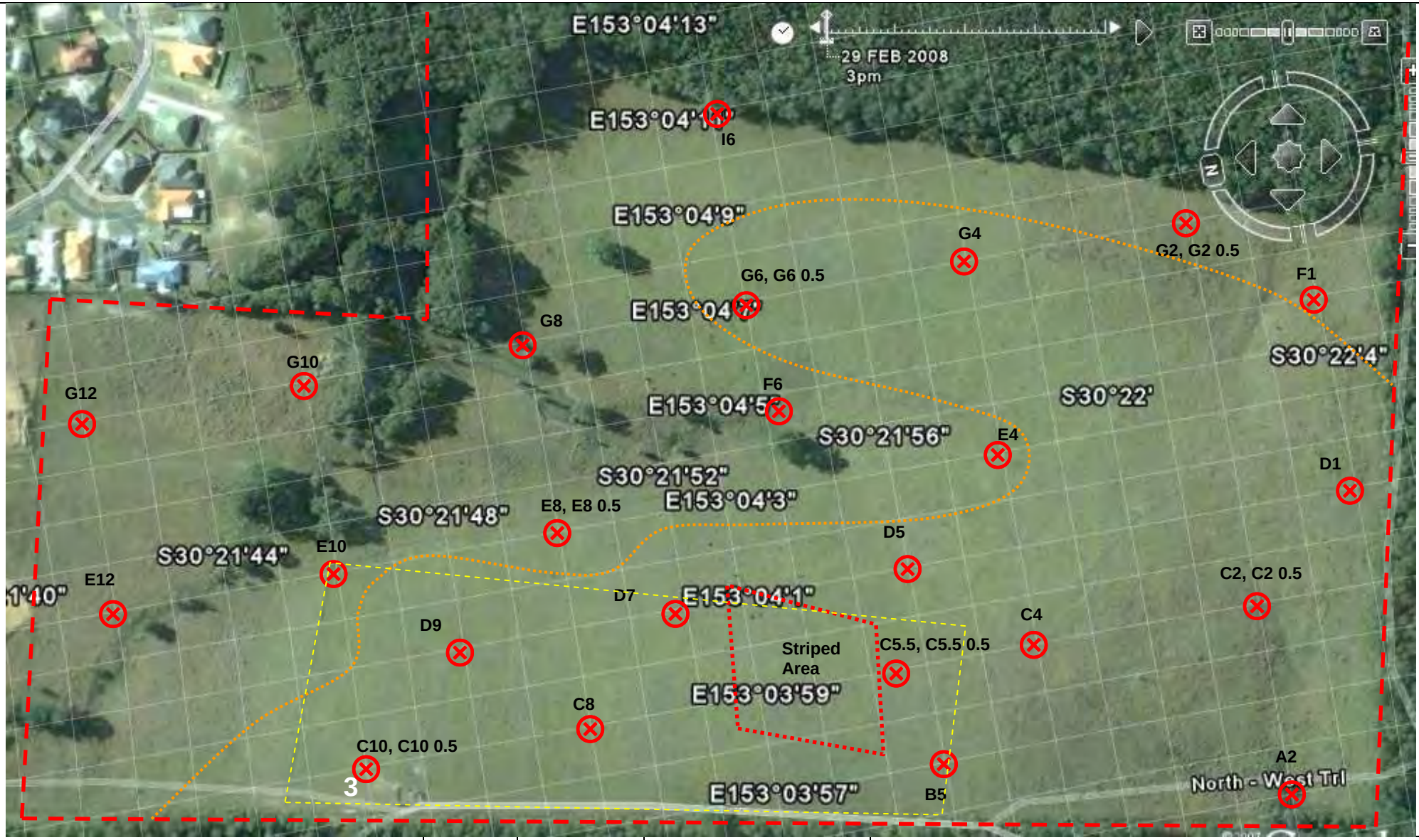
client:	**Utila Pty Ltd**
project:	**Phase 1 Environmental Site Assessment** **Lot 112 DP1073791, Lyons Road, Sawtell NSW**
title:	**Site locality Plan**
project no: **GEOTCOFH02467AA-AB**	figure no: **Figure 1**



Approximate banana plantation location

Approximate striped area location

Approximate potential acid sulphate boundary

Sourced from Google Earth

drawn	ST
approved	
date	24/02/09
scale	
original size	A4

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SPECIALISTS MANAGING THE EARTH

client: **Utila Pty Ltd**

project: **Phase 1 Environmental Site Assessment, Lot 112 DP1073791, Lyons Road, Sawtell NSW**

title: **Site Layout and Investigation Locations**

project no: **GEOTCOFH02467AA-AB**

figure no: **Figure 2**

Tables

Table 4: Results of Quality Control Soil Samples

	Primary Sample	Duplicate Sample	RPD (%)	Primary Sample	Duplicate Sample	RPD (%)	Primary Sample	Duplicate Sample	RPD (%)	Primary Sample	Triplicate Sample	RPD (%)	WASH BLANK
Sample ID	F1	QC1		G8	QC3		D5	QC5		D5	QC6		WB1
Material	Soil	Soil	%RPD between F1 and QC1	Soil	Soil	%RPD between G8 and QC3	Soil	Soil	%RPD between D5 and QC5	Soil	Soil	%RPD between D5 and QC6	Water
Date of Sampling	7-Jan-09	7-Jan-09		7-Jan-09	7-Jan-09		7-Jan-09	7-Jan-09		7-Jan-09	7-Jan-09		7-Jan-09
Depth (m)													
Heavy Metals													
Arsenic	< 2	< 2	NA	< 2	< 2	NA	< 2	< 2	NA	< 2	<3	NA	< 0.001
Cadmium	< 0.5	< 0.5	NA	< 0.5	< 0.5	NA	< 0.5	< 0.5	NA	< 0.5	<0.3	NA	< 0.0002
Chromium	8.9	8.5	5	< 5	< 5	NA	8.3	7.2	14	8.3	8.3	0	< 0.001
Copper	7.1	6.4	10	< 5	< 5	NA	< 5	< 5	NA	< 5	4.6	Inconsistent	< 0.001
Lead	9.8	11	12	< 5	< 5	NA	7.9	6.7	16	7.9	7	12	< 0.001
Mercury	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.1	<0.05	NA	< 0.0001
Nickel	< 5	< 5	NA	< 5	< 5	NA	< 5	< 5	NA	< 5	1.6	Inconsistent	< 0.001
Zinc	12	9.3	25	< 5	< 5	NA	8.6	6.8	23	8.6	7.7	11	< 0.001
Total Petroleum Hydrocarbons													
C_6 - C_9 Fraction	< 20	< 20	NA	< 20	< 20	NA	< 20	< 20	NA	< 20	<20	NA	< 0.02
C_{10} - C_{14} Fraction	< 50	< 50	NA	< 50	< 50	NA	< 50	< 50	NA	< 50	<20	NA	< 0.05
C_{15} - C_{28} Fraction	< 100	< 100	NA	< 100	< 100	NA	< 100	< 100	NA	< 100	<50	NA	< 0.1
C_{29} - C_{36} Fraction	< 100	< 100	NA	< 100	< 100	NA	< 100	< 100	NA	< 100	<50	NA	< 0.1
BTEX													
Benzene	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA				< 0.001
Ethylbenzene	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA				< 0.001
Toluene	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA				< 0.001
Xylenes(ortho.meta and para)	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA				< 0.001
Polycyclic Aromatic Hydrocarbons													
Acenaphthene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Acenaphthylene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Anthracene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Benz(a)anthracene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Benzo(a)pyrene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Benzo(b)fluoranthene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Benzo(g.h.i)perylene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Benzo(k)fluoranthene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Chrysene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Dibenz(a.h)anthracene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Fluoranthene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Fluorene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Indeno(1.2.3-cd)pyrene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Naphthalene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Phenanthrene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Pyrene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Total PAH	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA							< 0.001
Organochlorine Pesticides													
4.4'-DDD	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
4.4'-DDE	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
4.4'-DDT	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
a-BHC	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Aldrin	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
b-BHC	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Chlordane	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.001
d-BHC	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Dieldrin	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Endosulfan I	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Endosulfan II	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Endosulfan sulphate	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Endrin	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Endrin aldehyde	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Endrin ketone	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
g-BHC (Lindane)	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Heptachlor	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Heptachlor epoxide	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Hexachlorobenzene	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Methoxychlor	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.05	< 0.05	NA	< 0.0001
Toxophene	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.1	< 0.1	NA	< 0.001
Organophosphorous Pesticides													
Bolstar	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Chlorpyrifos	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Coumaphos	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Demeton-O	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Diazinon	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Dichlorvos	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Disulfoton	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Ethion	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Ethoprop	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Fenitrothion	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Fensulfothion	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Fenthion	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Merphos	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Methyl azinphos	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Methyl parathion	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Mevinphos	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Naled	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Phorate	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Ronnel	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Tokuthion	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002
Trichloronate	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	NA	< 0.002

Notes:

Value	RPD exceeds control limit of 50%
NA	Both samples have concentrations below laboratory's Limit of Reporting (LOR)
Inconsistent	One sample has concentration below LOR, the second sample has concentrations above LOR

Table 5: Summary of Laboratory Results for Soil Samples (all results in mg/kg)

Sample ID		A2	A2 (speciation)	B5	C2	C2	C4	C5.5	C5.5	C8	C10	C10	D1	D5	D7	D9	E4	E8	E8	E10	E12	F1	F6	G2	G2	G4	G6	G6	G8	G10	G12	I6
Material	THRESHOLD CONCENTRATIONS	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date of Sampling		7-Jan-09	7-Jan-09	7-Jan-09	7-Jan-09	8-Jan-09	7-Jan-09	8-Jan-09	8-Jan-09	7-Jan-09	8-Jan-09	8-Jan-09	7-Jan-09	7-Jan-09	8-Jan-09	8-Jan-09	7-Jan-09	7-Jan-09	8-Jan-09	8-Jan-09	8-Jan-09	7-Jan-09	8-Jan-09	7-Jan-09	8-Jan-09	7-Jan-09	7-Jan-09	8-Jan-09	7-Jan-09	8-Jan-09	8-Jan-09	7-Jan-09
Depth (m)		0.0-0.17m	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.5M	0.0-0.17m	0.0-0.17m	0.5M	0.0-0.17m	0.0-0.17m	0.5M	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.5M	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.5M	0.0-0.17m	0.0-0.17m	0.5M	0.0-0.17m	0.0-0.17m	0.0-0.17m	0.0-0.17m
Heavy Metals																																
Arsenic	100 [1]	3.5		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	3.5	< 2	< 2	3.6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	6.7	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Cadmium	20 [1]	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	100 [1]	8.4		< 5	5.1	7.3	11	9.3	17	6.4	8.8	14	7.1	8.3	< 5	8.8	14	6.6	9.9	7.7	< 5	8.9	13	8.5	10	12	7.2	10	< 5	8.1	8.5	6.4
Copper	1000 [1]	13		6.8	5.3	< 5	9.9	6.6	7	< 5	7.8	10	7.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	7.1	24	8.8	6.8	6.9	5.5	< 5	< 5	< 5	7.3	6.6
Lead	300 [1]	15		13	8.9	13	19	12	9.2	7.3	11	7.2	13	7.9	< 5	7.8	8.6	5.6	5.9	8.5	< 5	9.8	19	9.3	6.3	7.9	7.4	8.1	< 5	15	10	12
Mercury	15 [1]	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	600 [1]	< 5		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5.8	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Zinc	7000 [1]	26		14	11	11	20	19	16	11	23	12	13	8.6	< 5	13	11	6.6	< 5	8	< 5	12	580	12	6.1	20	13	6.5	< 5	51	18	12
Total Petroleum Hydrocarbons																																
C_6 - C_9 Fraction	65 [2]	< 20		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
C_{10} - C_{14} Fraction		1000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
C_{15} - C_{28} Fraction		350	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
C_{29} - C_{36} Fraction		200	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Total C_{10} - C_{36}	1000 [2]	**1550**	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250
BTEX																																
Benzene	1 [2]	< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	3.1 [2]	< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	1.4 [2]	0.41		0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.09	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.09	< 0.05	< 0.05	< 0.05	< 0.05	0.08	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.09	< 0.05
Xylenes(ortho.meta and para)	14 [2]	< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Polycyclic Aromatic Hydrocarbons																																
Acenaphthene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Acenaphthylene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Anthracene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Benz(a)anthracene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Benzo(a)pyrene	1 [2]			< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Benzo(b)fluoranthene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Benzo(g.h.i)perylene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Chrysene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Dibenz(a.h)anthracene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Fluoranthene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Fluorene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.2	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Indeno(1.2.3-cd)pyrene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Naphthalene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Phenanthrene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Pyrene				< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Total PAH	20 [2]			< 0.1				< 0.1			< 0.1		< 0.1		< 0.1		< 0.1	< 0.1			< 0.2	< 0.1	< 0.1			< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	
Organochlorine Pesticides																																
4.4'-DDD		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDT+DDD+DDE	200 [1]	< 0.15		< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
a-BHC		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	50 [1]	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.4	0.1	< 0.1	< 0.1	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin/Dieldrin	10 [1]	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Endosulfan I		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	10 [1]	< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.11	< 0.05	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor		< 0.05		< 0.05	< 0.05	< 0.05	< 0.05	0.14	< 0.05	0.07	0.16	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene		< 0.1		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Organophosphorous Pesticides																																
Bolstar		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Diazinon		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Ethion		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Merphos		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Naled		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Phorate		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate		< 0.2		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Asbestos Containing Material				ND				ND			ND		ND		ND		ND	ND			ND	ND	ND			ND	ND		ND	ND	ND	

Notes:

Bold Concentration exceeds the Threshold Concentration

[1] Based on NSW DEC (2006), Guidelines for the NSW Site Auditor Scheme (2nd ed) and NEPM (1999) (Residental with gradens - NEHF-A)

[2] Based on NSW EPA (1994), Guidelines for Assessing Service Station Sites

ND Not Detected

Appendix A

Site History Information

WorkCover
NEW SOUTH WALES

Our Ref: D08/155865
Your Ref: Andrew Ballard

22 December 2008

Attention: Mr Ballard
Coffey Geotechnics
PO Box 706
Coffs Harbour NSW 2450

Dear Mr Ballard

RE SITE: Lot 112 DP1073791 Lyons Road, Sawtell NSW 2452

I refer to your site search request received by WorkCover NSW on 18th December 2008, requesting information on licences to keep dangerous goods for the above site.

A search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover NSW has not located any records pertaining to the above-mentioned premises.

If you have any further queries please contact the Dangerous Goods Licensing Team on (02) 4321 5500.

Yours sincerely

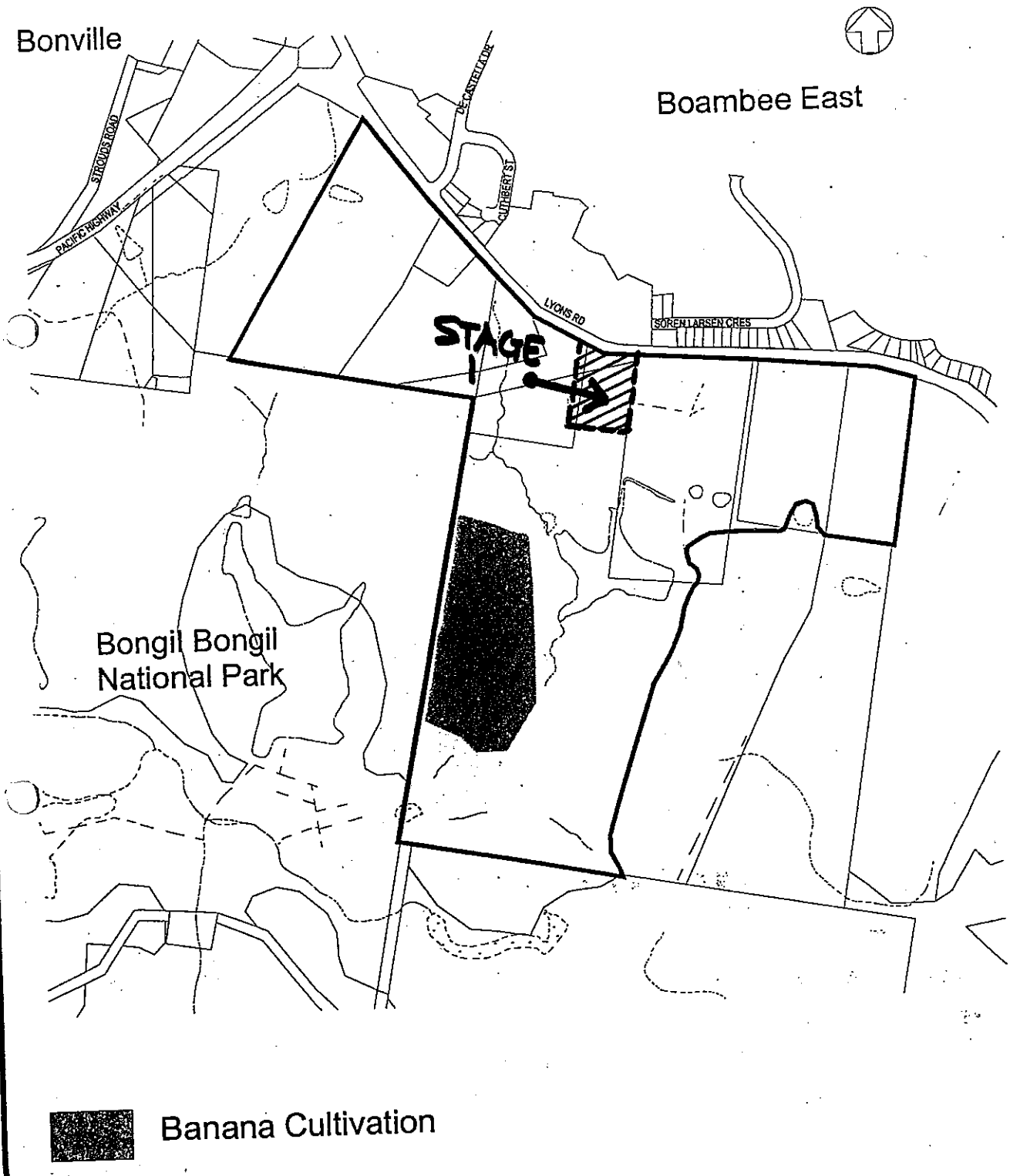
Michelle Kidd

Senior Licensing Officer
Dangerous Goods Team

CHCC RECORDS.

NORTH BONVILLE

ANNEXURE 4



Banana Cultivation

MAP 7

POTENTIAL CONTAMINATED LAND

NSW EPA

Print Close page

Search results

Your search for: LGA: Coffs Harbour City Council

Matched 10 notices relating to 4 sites.

Suburb	Address	Site Name	Notices related to this site
Coffs Harbour	136 Pacific Highway	BP Service Station	1 current
Coffs Harbour	near General Aviation Drive	Mobil Fuel Depot (Airport)	1 former
Coffs Harbour	316 High Street	Mobil Service Station	3 current and 2 former
Coramba	5 Martin Street	5 Martin Street, Coramba	3 current

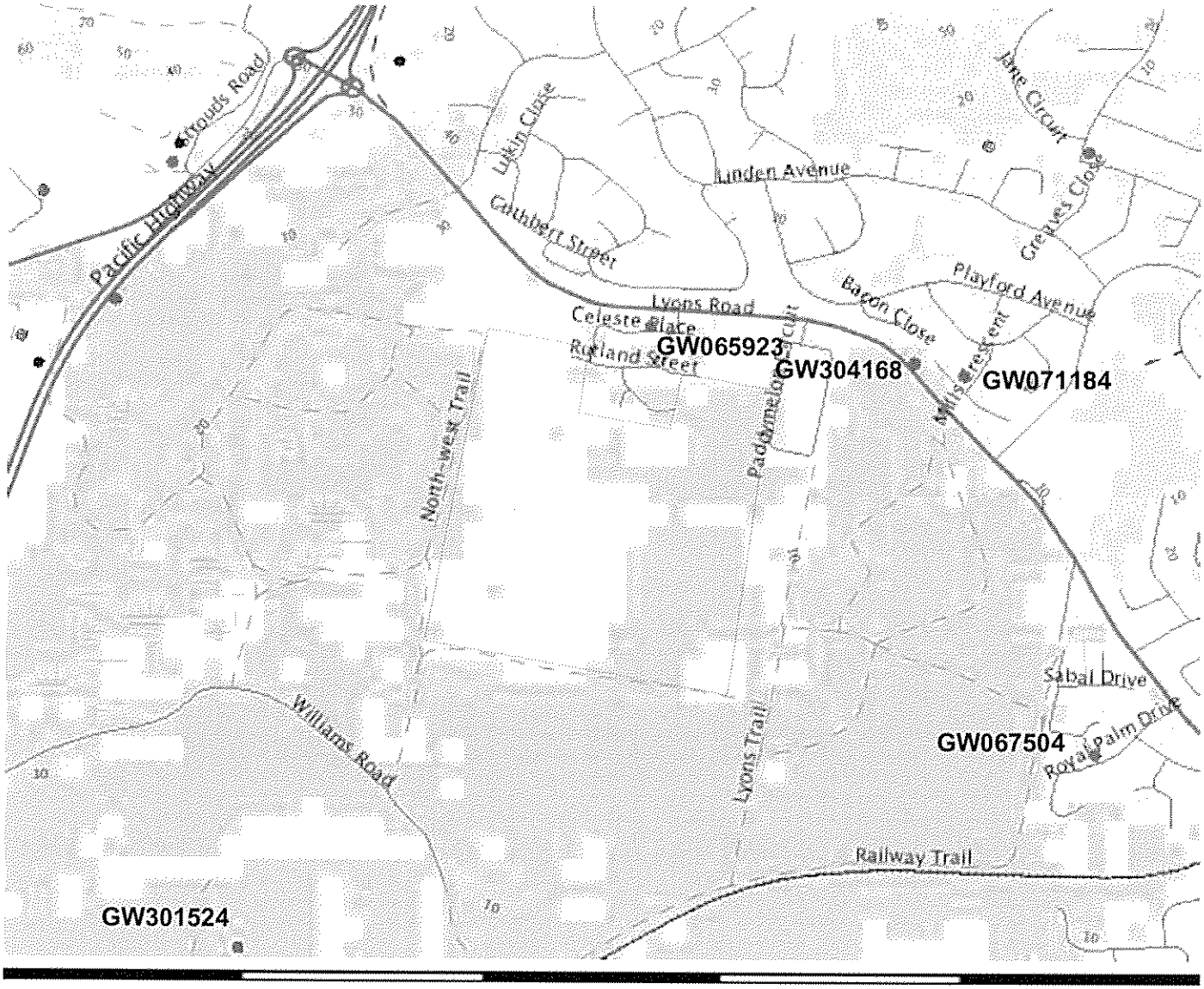
Page 1 of 1

16 December 2008

Lyons Rd GC02467AA

Map created with NSW Groundwater Works - http://nratlas.nsw.gov.au

Tuesday, January 06, 2009



drawn:	ST	coffey geotechnics SPECIALISTS MANAGING THE EARTH	client:	Utila Pty Ltd	
approved:			project:	Phase 1 Environmental Site Assessment, Lot 112 DP1073791, Lyons Road, Sawtell NSW	
date:	24/02/09		title:	Ground Water Well locations	
scale:	NTS		project no.:	GEOTCOFH02467AA-AB	drawing no: NA
original size:	A4				

Groundwater Works Summary

For information on the meaning of fields please see Glossary
Document Generated on Tuesday, December 16, 2008

Print Report

Works Details Site Details Form A Licensed Construction Water Bearing Zones Drillers Log

Work Requested -- GW067504

Works Details (top)

GROUNDWATER NUMBER	GW067504
LIC-NUM	30BL142266
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC STOCK
WORK-TYPE	Bore
WORK-STATUS	(Unknown)
CONSTRUCTION-METHOD	Rotary Air
OWNER-TYPE	Private
COMMENCE-DATE	1991-01-12
COMPLETION-DATE	1991-01-12
FINAL-DEPTH (metres)	31.00
DRILLED-DEPTH (metres)	31.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	- CENTRAL WEST FRACTURED ROCKS
GW-ZONE	- TUCKEAN GROUNDWATER SOURCE
STANDING-WATER-LEVEL	
SALINITY	
YIELD	

Site Details (top)

REGION	30 - NORTH COAST
RIVER-BASIN	205 - BELLINGER RIVER
AREA-DISTRICT	
CMA-MAP	9537-3N
GRID-ZONE	56/2
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6640191.00
EASTING	507758.00
LATITUDE	30 22' 13"
LONGITUDE	153 4' 51"
GS-MAP	

AMG-ZONE	56
COORD-SOURCE	
REMARK	

Form-A (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	LT10 DP793041

Licensed (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	10 793041

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	31.00	168			Rotary Air
1	1	Casing	PVC Class 9	0.00	31.00	150			Seated on Bottom
1	1	Opening	Slots - Vertical	9.00	28.00	150		1	PVC Class 9; Sawn; SL: 150mm; A: 3mm

Water Bearing Zones (top)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
9.00	28.00	19.00	Fractured	8.20		0.50			

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	2.00	2.00	topsoil		
2.00	9.00	7.00	shale		
9.00	28.00	19.00	Hard & Soft Layers Basalt		
28.00	31.00	3.00	Hard Basalt		

Groundwater Works Summary

For information on the meaning of fields please see Glossary
Document Generated on Tuesday, December 16, 2008

Print Report

Works Details Site Details Form A Licensed Construction Water Bearing Zones Drillers Log

Work Requested -- GW301524

Works Details (top)

GROUNDWATER NUMBER	GW301524
LIC-NUM	30BL178186
AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Bore
WORK-STATUS	(Unknown)
CONSTRUCTION-METHOD	Rotary Air
OWNER-TYPE	
COMMENCE-DATE	
COMPLETION-DATE	1998-08-04
FINAL-DEPTH (metres)	61.00
DRILLED-DEPTH (metres)	61.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	BONVILLE MANAGEMENT SERVICES
GWMA	- CENTRAL WEST FRACTURED ROCKS
GW-ZONE	- TUCKEAN GROUNDWATER SOURCE
STANDING-WATER-LEVEL	9.00
SALINITY	326.00
YIELD	1.89

Site Details (top)

REGION	30 - NORTH COAST
RIVER-BASIN	
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6639692.00
EASTING	505873.00
LATITUDE	30 22' 29"
LONGITUDE	153 3' 40"
GS-MAP	

AMG-ZONE	56
COORD-SOURCE	Map Interpretation
REMARK	

Form-A (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	LOT 3 DP866745

Licensed (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	3 866745

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	15.00	180			Rotary Air
1		Hole	Hole	15.00	61.00	140			Rotary Air
1	1	Casing	PVC Class 9	0.00	15.00	170	154		C: 0-15m; Glued; Driven into Hole
1	1	Casing	PVC Class 9	0.00	61.00	125	113		Glued; Seated on Bottom
1	1	Opening	Slots - Vertical	37.00	42.00	125			PVC Class 9; Sawn; SL: 100mm; A: 2.6mm
1	1	Opening	Slots - Vertical	54.00	59.00	125			PVC Class 9; Sawn; SL: 100mm; A: 2.6mm

Water Bearing Zones (top)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
37.00	42.00	5.00		9.00		1.27			
54.00	59.00	5.00		9.00		0.65	61.00		326.00

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.70	0.70	BLACK TOPSOIL		
0.70	3.00	2.30	RED FRIABLE CLAY		
3.00	15.00	12.00	BROWN CLAY		
15.00	37.00	22.00	BASALT		
37.00	42.00	5.00	BROKEN BASALT		
42.00	54.00	12.00	BASALT		
54.00	59.00	5.00	CRACKY BASALT		
59.00	61.00	2.00	BASALT		

Groundwater Works Summary

For information on the meaning of fields please see Glossary
Document Generated on Tuesday, December 16, 2008

Print Report

Works Details Site Details Form A Licensed Construction Water Bearing Zones Drillers Log

Work Requested -- GW065923

Works Details (top)

GROUNDWATER NUMBER	GW065923
LIC-NUM	
AUTHORISED-PURPOSES	
INTENDED-PURPOSES	INDUSTRIAL
WORK-TYPE	Bore
WORK-STATUS	(Unknown)
CONSTRUCTION-METHOD	Rotary Air
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	1991-02-06
FINAL-DEPTH (metres)	30.00
DRILLED-DEPTH (metres)	0.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	
GWMA	
GW-ZONE	
STANDING-WATER-LEVEL	
SALINITY	
YIELD	

Site Details (top)

REGION	30 - NORTH COAST
RIVER-BASIN	205 - BELLINGER RIVER
AREA-DISTRICT	
CMA-MAP	9537-3N
GRID-ZONE	56/2
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6641281.00
EASTING	506777.00
LATITUDE	30 21' 37"
LONGITUDE	153 4' 14"
GS-MAP	0092A2

AMG-ZONE	56
COORD-SOURCE	
REMARK	

Form-A (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	154

Licensed (top)

no details

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	P.V.C.	0.30	30.60	160			Seated on Bottom
1	1	Opening	Slots - Vertical	14.00	30.00	160		1	Mechanically Slotted; SL: 0mm; A: 3mm

Water Bearing Zones (top)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
14.00	18.00	4.00	Fractured			0.20			
18.00	40.00	22.00	Fractured	2.90		0.80			

Drillers Log (top)

no details

Groundwater Works Summary

For information on the meaning of fields please see Glossary
Document Generated on Tuesday, December 16, 2008

Print Report

Works Details Site Details Form A Licensed Construction Water Bearing Zones Drillers Log

Work Requested -- GW304168

Works Details (top)

GROUNDWATER NUMBER	GW304168
LIC-NUM	30BL181194
AUTHORISED-PURPOSES	DOMESTIC STOCK
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Bore
WORK-STATUS	
CONSTRUCTION-METHOD	Down Hole Hammer
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2003-07-15
FINAL-DEPTH (metres)	67.00
DRILLED-DEPTH (metres)	67.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	HARDAKER'S
GWMA	- CENTRAL WEST FRACTURED ROCKS
GW-ZONE	- TUCKEAN GROUNDWATER SOURCE
STANDING-WATER-LEVEL	
SALINITY	
YIELD	

Site Details (top)

REGION	30 - NORTH COAST
RIVER-BASIN	205 - BELLINGER RIVER
AREA-DISTRICT	
CMA-MAP	
GRID-ZONE	
SCALE	
ELEVATION	
ELEVATION-SOURCE	
NORTHING	6641190.00
EASTING	507361.00
LATITUDE	30 21' 40"
LONGITUDE	153 4' 36"
GS-MAP	

AMG-ZONE	56
COORD-SOURCE	Map Interpretation
REMARK	

Form-A (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	LT 21 DP 816762

Licensed (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	21 816762

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	67.00	165			Down Hole Hammer

Water Bearing Zones (top)

no details

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.20	1.20	SOIL		
1.20	5.40	4.20	CLAY		
5.40	33.50	28.10	DEC SHALE		
33.50	67.00	33.50	QUARTZ SHALE		

Groundwater Works Summary

For information on the meaning of fields please see Glossary
Document Generated on Tuesday, December 16, 2008

Print Report

Works Details Site Details Form A Licensed Construction Water Bearing Zones Drillers Log

Work Requested -- GW071184

Works Details (top)

GROUNDWATER NUMBER	GW071184
LIC-NUM	30BL153247
AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	
WORK-STATUS	(Unknown)
CONSTRUCTION-METHOD	Rotary Air
OWNER-TYPE	
COMMENCE-DATE	
COMPLETION-DATE	1993-10-19
FINAL-DEPTH (metres)	91.50
DRILLED-DEPTH (metres)	91.50
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	N/A
GWMA	- CENTRAL WEST FRACTURED ROCKS
GW-ZONE	- TUCKEAN GROUNDWATER SOURCE
STANDING-WATER-LEVEL	6.00
SALINITY	
YIELD	0.25

Site Details (top)

REGION	30 - NORTH COAST
RIVER-BASIN	205 - BELLINGER RIVER
AREA-DISTRICT	
CMA-MAP	9537-3N
GRID-ZONE	56/2
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	Est. Contour 8-15M.
NORTHING	6641158.00
EASTING	507471.00
LATITUDE	30 21' 41"
LONGITUDE	153 4' 40"
GS-MAP	0092A2

AMG-ZONE	56
COORD-SOURCE	GD.,ACC.MAP
REMARK	

Form-A (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	LT22 DP816762

Licensed (top)

COUNTY	RALEIGH
PARISH	BONVILLE
PORTION-LOT-DP	LT22 DP816762

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter; ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE-NO	PIPE-NO	COMPONENT-CODE	COMPONENT-TYPE	DEPTH-FROM (metres)	DEPTH-TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	8.00	140			Rotary
1		Hole	Hole	8.00	91.50	140			Down Hole Hammer
1	1	Casing	PVC Class 9	-0.30	42.00	125			Glued; Suspended in Clamps
1	1	Opening	Slots - Vertical	32.00	36.00	125		1	PVC Class 9; Sawn; SL: 0mm; A: 2.6mm

Water Bearing Zones (top)

FROM-DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK-CAT-DESC	S-W-L	D-D-L	YIELD	TEST-HOLE-DEPTH (metres)	DURATION	SALINITY
32.00	36.00	4.00	Fractured	6.00		0.25	91.50	1.00	Good

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.30	0.30	Topsoil		
0.30	3.00	2.70	Clay -brown		
3.00	8.00	5.00	Shale - brown		
8.00	32.00	24.00	Basalt		
32.00	36.00	4.00	Basalt - cracky		

36.00	91.50	55.50	Basalt

ADVANCE LEGAL SEARCH PTY LIMITED

(ACN 077 067 068)
ABN 49 077 067 068

PO Box 149
Yagoona NSW 2199

Telephone: +612 9754 1590
Mobile: 0412 169 809
Facsimile: +612 9754 1364
Email: alsearch@optusnet.com.au

22 December 2008

COFFEY GEOTECHNICS Pty Ltd
PO Box 704
COFFS HARBOUR NSW 2450

Attention: Andrew Ballard

RE: **Lot 112 Lyons Road**
Sawtell
GEOTCOFH02467AA

Current Search

Folio Identifier 112/1073791 (title attached)
DP 1073791 (plan attached)
Dated 18 December 2008
MARCOLINA BORSATO
TARCISIO BORSATO
ZITA BORSATO

Title Tree
Lot 112 DP 1073791

Folio Identifier 112/1073791

Folio Identifier 3/1065589

Folio Identifier 12/558661

Certificate of Title Volume 12053 Folio 76

Certificate of Title Volume 11833 Folio 174

Certificate of Title Volume 11715 Folio 173

Certificate of Title Volume 11256 Folio 82

Certificate of Title Volume 11029 Folio 207

Certificate of Title Volume 7550 Folio 192

Certificate of Title Volume 4604 Folio 45

Crown

****

Summary of Proprietor(s)
Lot 112 DP 1073791

Year	Proprietor
	(Lot 112 DP 1073791)
2004 – todate	Marcolina Borsato Tarcisio Borsato Zita Borsato
	(Lot 3 DP 1065589)
2004 – 2004	Marcolina Borsato Tarcisio Borsato Zita Borsato
	(Lot 12 DP 558661)
2003 – 2004	Marcolina Borsato Tarcisio Borsato Zita Borsato
1988 – 2003	Giovanna Borsato, banana grower Marcolina Borsato Tarcisio Borsato Zita Borsato
	(Lot 12 DP 558661 – CTVol 12053 Fol 76)
1973 – 1988	Giovanna Borsato, banana grower Marcolina Borsato Tarcisio Borsato Zita Borsato
1973 – 1973	Enzo Carraro, produce merchant Constance Carraro
	(Lot 1 DP 554819 – CTVol 11833 Fol 174)
1972 – 1973	Enzo Carraro, produce merchant Constance Carraro
	(Lot 1 DP 550769 – CTVol 11715 Fol 173)
1971 – 1972	Enzo Carraro, produce merchant Constance Carraro
1971 – 1971	Dixon Stanley Anderson, farmer
	(Lot 1 DP 538350 - CTVol 11256 Fol 82)
1970 – 1971	Dixon Stanley Anderson, farmer
1970 – 1970	James Arthur Worland, farmer Dixon Stanley Anderson, farmer
	(Lot 2 DP 534356 – CTVol 11029 Fol 207)
1969 – 1970	Dixon Stanley Anderson, farmer

Cont:

Cont:

	(Part Portion 154 Parish Bonville – Area 175 Acres 1 Rood 21 ¼ Perches – CTVol 7550 Fol 192)
1958 – 1969	Dixon Stanley Anderson, farmer
(1960 – 1969)	*(lease to Keith Neville Short, farmer)*
	(Portion 154 Parish Bonville – Area 333 Acres – CTVol 4604 Fol 45)
1947 – 1958	Dixon Stanley Anderson, farmer
1947 – 1947	Ann Sarah Carmady, widow Clarence Harold Carmady, forester
1946 – 1947	George Bower, farmer
1946 – 1946	The Union Trustee Company of Australia Limited Milford Graham Wilson, medical practioner Bruce Compton Wilson, grazier
1933 – 1946	Charles Stanley Wentworth Wilson, grantee
	(Portion 154 Parish Bonville – Area 333 Acres)
Prior – 1933	Crown Land

****

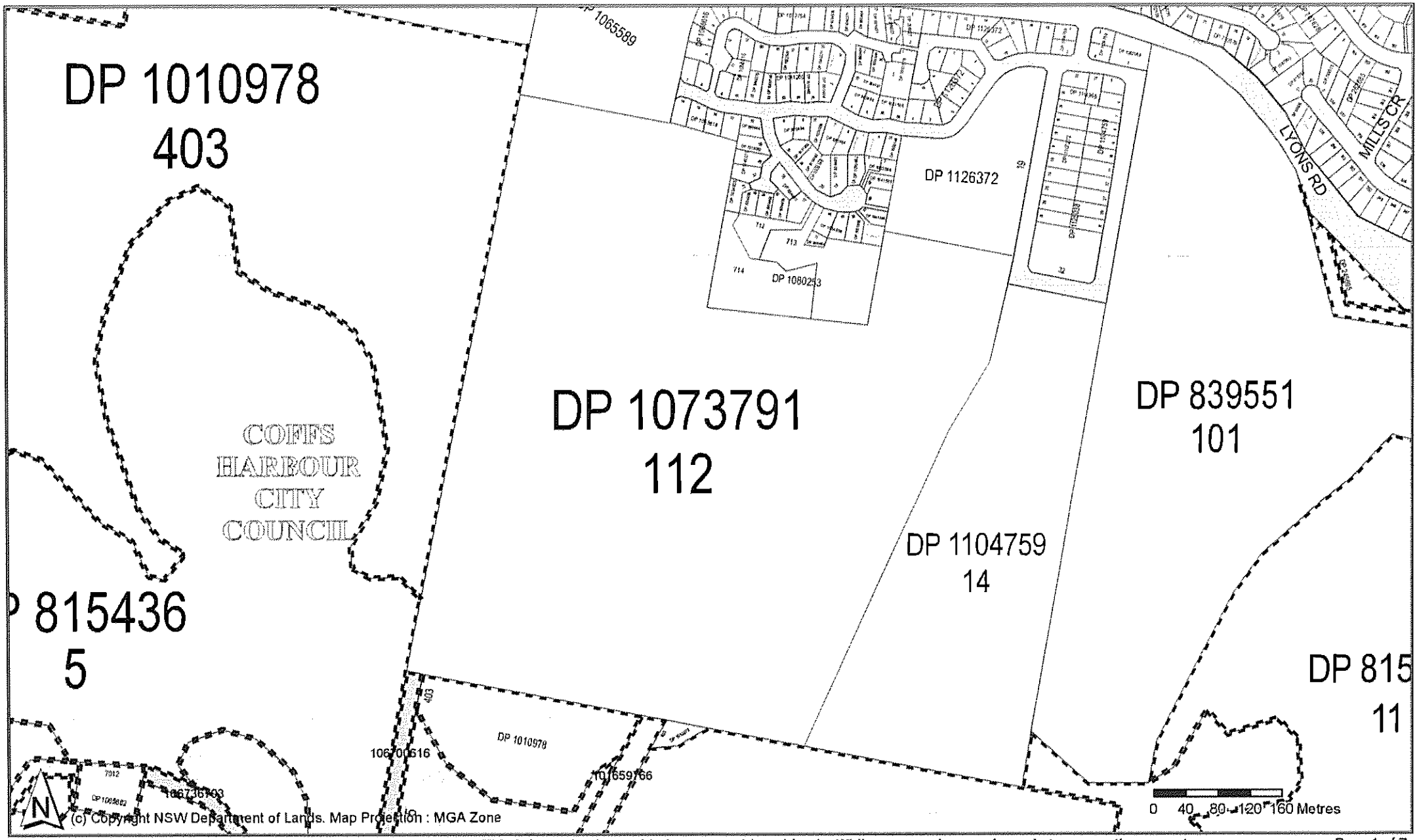
Department of Lands
Reliable from the ground up

Cadastral Records Enquiry Report

Ref : BOX 97 - SAWTELL

Requested Parcel : Lot 112 DP 1073791 **Identified Parcel :** Lot 112 DP 1073791

Locality : BONVILLE **LGA :** COFFS HARBOUR **Parish :** BONVILLE **County :** RALEIGH



Report Generated 12:24:20 PM, 19 December, 2008

Information Provided Through
Advance Legal Search Pty Ltd
Ph. 0297541590 *Fax.* 0297541364

Title Search

LEAP Legal
An Approved LPI *NSW*
Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 112/1073791

SEARCH DATE	TIME	EDITION NO	DATE
18/12/2008	5:50 PM	1	24/9/2004

LAND

LOT 112 IN DEPOSITED PLAN 1073791
AT BONVILLE
LOCAL GOVERNMENT AREA COFFS HARBOUR
PARISH OF BONVILLE COUNTY OF RALEIGH
TITLE DIAGRAM DP1073791

FIRST SCHEDULE

MARCOLINA BORSATO
IN 1/2 SHARE
TARCISIO BORSATO
ZITA BORSATO
AS JOINT TENANTS IN 1/2 SHARE
AS TENANTS IN COMMON

SECOND SCHEDULE (2 NOTIFICATIONS)

1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
2 DP1065589 RIGHT OF CARRIAGEWAY 30 METRE(S) WIDE AND VARIABLE APPURTENANT TO THE LAND ABOVE DESCRIBED

NOTATIONS

DP803094 NOTE: PLAN IS FOR PROPOSED ACQUISITION
UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Coffey - Sawtell ALSP PRINTED ON 18/12/2008

PLAN FORM 2 (APPROVED FORM 3)

Plan Drawing only to appear in this space

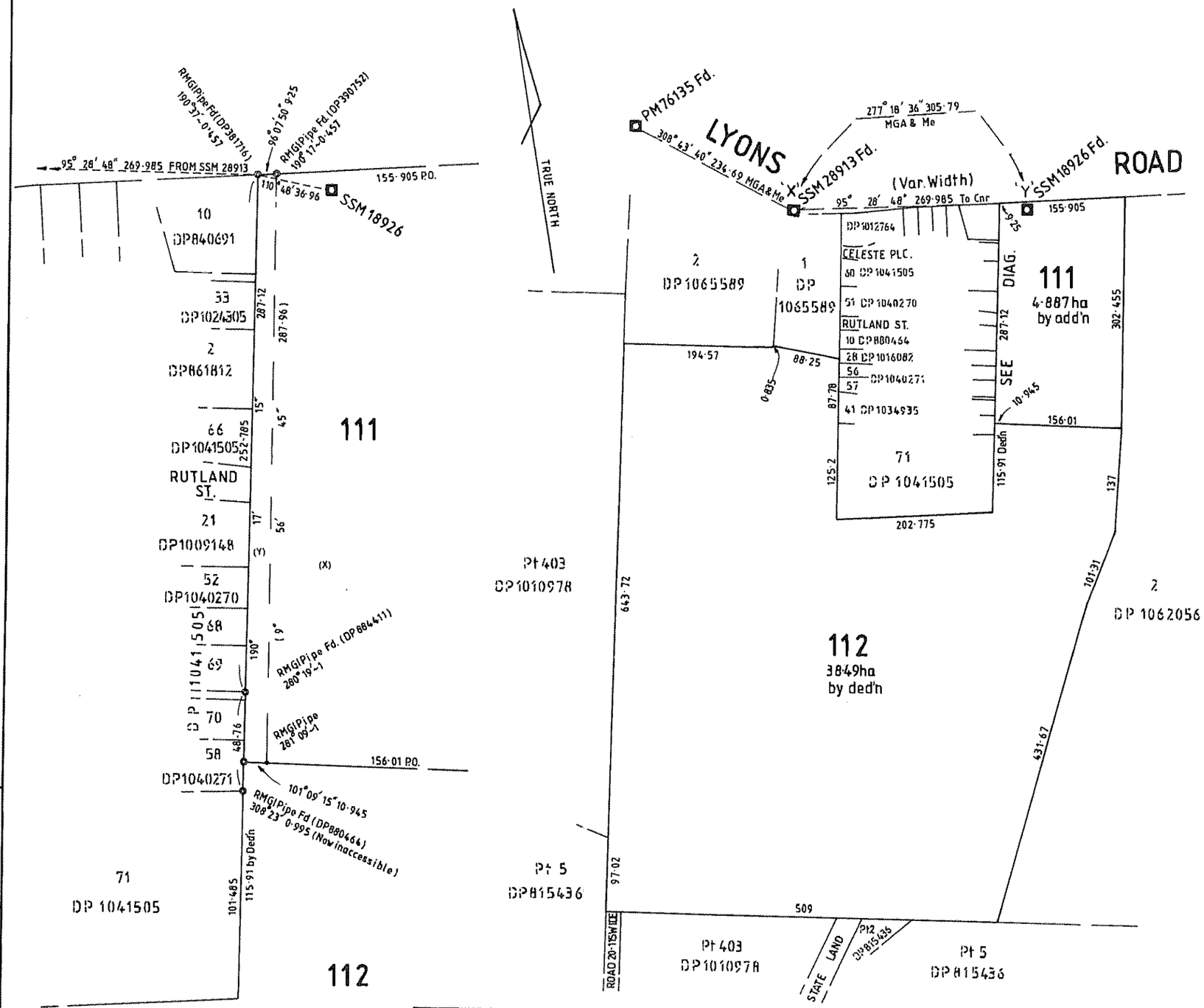
* OFFICE USE ONLY

SIGNATURES AND SEALS ONLY

M Borsato
L. Borsato
2 Owners

AMBERSTAR PTY. LIMITED ACN 073 596 264 The Common Seal of

Sole Director/Secretary



SURVEY PRACTICE REGULATION 2001 CLAUSE 32(2)				
	M.G.A. CO-ORDINATES			
MARK	EASTING	NORTHING	ZONE	CLS
SSM 28913	506646·752	6641325·411	56	B
SSM 18926	506949·93	6641286·519	56	B
PM 76135	506463·74	6641472·179	56	B
• SOURCE: L.P.I.COFFS HARBOUR 3 MARCH 2004				
• COMBINED SCALE FACTOR 0·9996				
• ALL DISTANCES SHOWN ARE GROUND DISTANCES				

DIAGRAM

R.R.1:1500

(X) COVENANT - F991888

(Y) - BENEFITED BY RIGHT OF CARRIAGE-WAY 30 WIDE & VARIABLE - DP1065589

AMENDMENTS MADE BY ME 23/06/2004 Keith Wood KEITH WOOD

AMENDMENTS NOTED BY ME AUTHORISED PERSON COFFS HARBOUR CITY COUNCIL

Department of Lands Approval

I ..... Authorised Officer in approving this plan certify that all necessary approvals in regard to the allocation of the land shown hereon have been given.

Signature .....

Date .....

File Number ..... Office .....

Subdivision Certificate

I certify that the provisions of s.109J of the Environmental Planning and Assessment Act 1979 have been complied in relation to

* the proposed ..... SUBDIVISION ..... set out herein (insert 'subdivision' or 'new road')

* the subdivision is for lease purposes in accordance with s.23H of the Conveyancing Act 1919

..... Authorised Person/General Manager/Accredited Certifier

Consent Authority: Coffs Harbour City Council

Date of Endorsement: 20/5/04

Accreditation No .....

Subdivision certificate No. 167/04

File No. .....

Note:
Where the plan is to be lodged electronically in the Land Titles Office, it should include a signature in an electronic or digital format approved by the Registrar-General.

* Delete whichever is inapplicable.

DP1073791

Registered: 24-9-2004 *

Title System: TORRENS

Purpose: SUBDIVISION

Ref map: Y0035-6 #

Last Plan: DP390752, DP1065589

PLAN OF SUBDIVISION OF LOT 1 IN DP 390752 & LOT 3 IN DP 1065589

Lengths are in metres Reduction Ratio 1:4000

L.G.A.: COFFS HARBOUR

Locality: BONVILLE

Parish: BONVILLE

County: RALEIGH

This is sheet 1 of my plan in ... sheets.
(Delete if inapplicable)

Survey Certificate
Surveying Regulation, 2001

I, KEITH HENRY WOOD
of 11 RUSHTON AVENUE, MOONEE BEACH 2450
a surveyor registered under the Surveying Act 2002, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Surveying Regulation 2001 and was completed on 12TH MAY 2004

The survey relates to Lot adjustment btwn lots 111 & 112

Signature Keith Wood Dated 12/5/2004
Surveyor registered under the Surveying Act 2002

Datum Line: X - Y

Type: Urban/Rural

Plans used in preparation of Survey/Compilation.
DP390752 DP 781642 DP 550769 DP 554819
DP 558661 DP 840691 DP1041505 DP 815436

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

SURVEYOR'S REFERENCE: 1100 BDYADJ DP— 2004M7100(340) Pt. Survey

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

Information Provided Through
Advance Legal Search Pty Ltd
Ph. 0297541590 *Fax.* 0297541364

Historical Search

LEAP Legal
An Approved LPI *NSW*
Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
18/12/2008 5:52PM

FOLIO: 112/1073791

First Title(s): VOL 4604 FOL 45
Prior Title(s): 3/1065589

Recorded	Number	Type of Instrument	C.T. Issue
24/9/2004	DP1073791	DEPOSITED PLAN	FOLIO CREATED EDITION 1

*** END OF SEARCH ***

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Historical Search

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Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
18/12/2008 5:53PM

FOLIO: 3/1065589

First Title(s): VOL 4604 FOL 45
Prior Title(s): 12/558661

Recorded	Number	Type of Instrument	C.T. Issue
22/3/2004	DP1065589	DEPOSITED PLAN	FOLIO CREATED EDITION 1
24/9/2004	DP1073791	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Coffey - Sawtell ALSP

PRINTED ON 18/12/2008

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Historical Search

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Information Broker

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE
18/12/2008 5:56PM

FOLIO: 12/558661

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 12053 FOL 76

Recorded	Number	Type of Instrument	C.T. Issue
28/3/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
28/7/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
26/10/1988	X943271	MORTGAGE	EDITION 1
28/6/1990	DP803094	DEPOSITED PLAN	
10/3/1999	5669076	DEPARTMENTAL DEALING	
1/9/2003	9929884	DISCHARGE OF MORTGAGE	
1/9/2003	9929885	NOTICE OF DEATH	EDITION 2
22/3/2004	DP1065589	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS

*** END OF SEARCH ***

Coffey - Sawtell ALSP PRINTED ON 18/12/2008

NEW SOUTH WALES

Crown Grant Vol. 4604 Fol. 45

Prior Title Vol.11833 Fol.174

Vol. 12053 Fol. 76

Edition issued 7-3-1973

(Page 1) Vol. 12053 Fol. 76

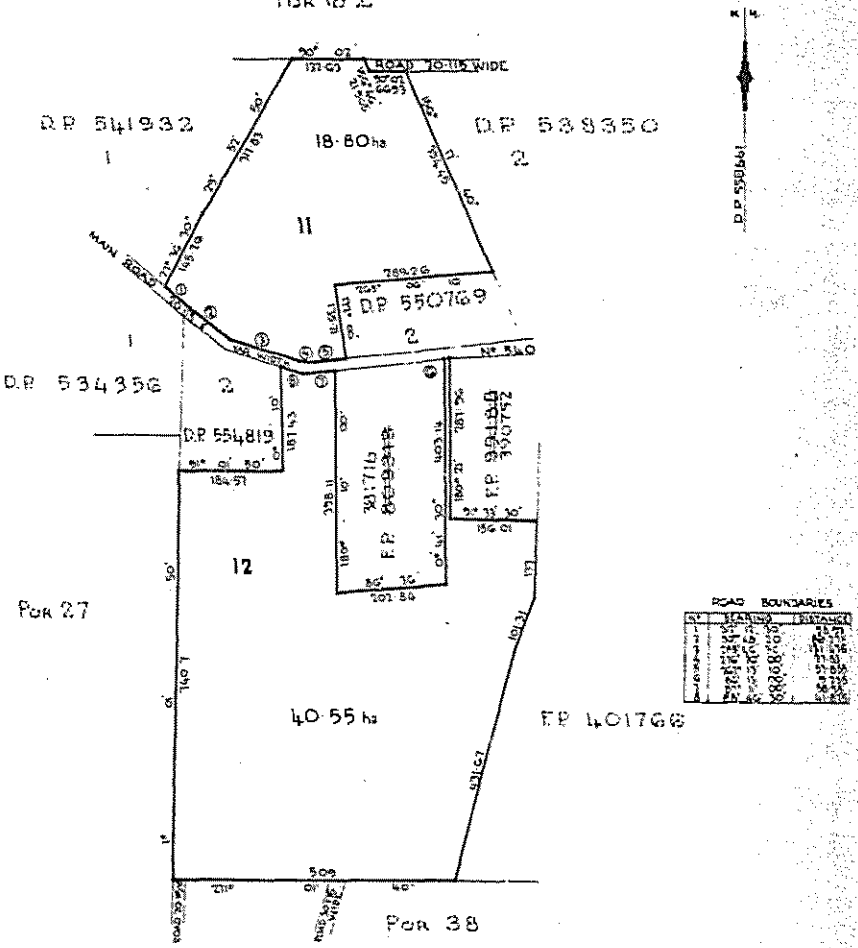
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

CANCELLED

Registrar General

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 12 in Deposited Plan 558661 at South Sawtell in the Shire of Coffs Harbour Parish of Bonville and County of Raleigh. EXCEPTING THEREOUT the minerals reserved by the Crown Grant.

FIRST SCHEDULE

~~ENZO CARRARO of Coffs Harbour, Produce Merchant and CONSTANCE CARRARO, his wife, as Joint Tenants.~~

SECOND SCHEDULE

GRM 1. Reservations and conditions, if any, contained in the Crown Grant above referred to.

2. ~~Mortgage No.M519060 to Dixon Stanley Anderson of Boambee, Farmer. Entered 6-12-1971.~~ Discharged N217778

Registrar General

Vol. 12053 Fol. 76

N217715 D/M
— 4 T
DP263892
DP263891
Regd M.583
Propd Acq

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Giovanni Borsato of Coff's Harbour Banana grower and Marcolina Borsato his wife as Joint Tenants as to one undivided one-half share and Tarcisio Borsato of Coff's Harbour, Banana grower and Zita Borsato his wife as Joint Tenants as to the remaining one undivided one-half share as Tenants in Common	Transfer.	N217714	12.4.1973	9.5.1973	[signature]

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

CATE OF TITLE

PROPERTY ACT, 1900

Vol. 11833 Fol. 174

Crown Grants Vol. 4604 Fol. 45
Vol. 4710 Fol. 45
Vol. 8464 Fol. 90

Prior Title Vol. 11715 Fol.173

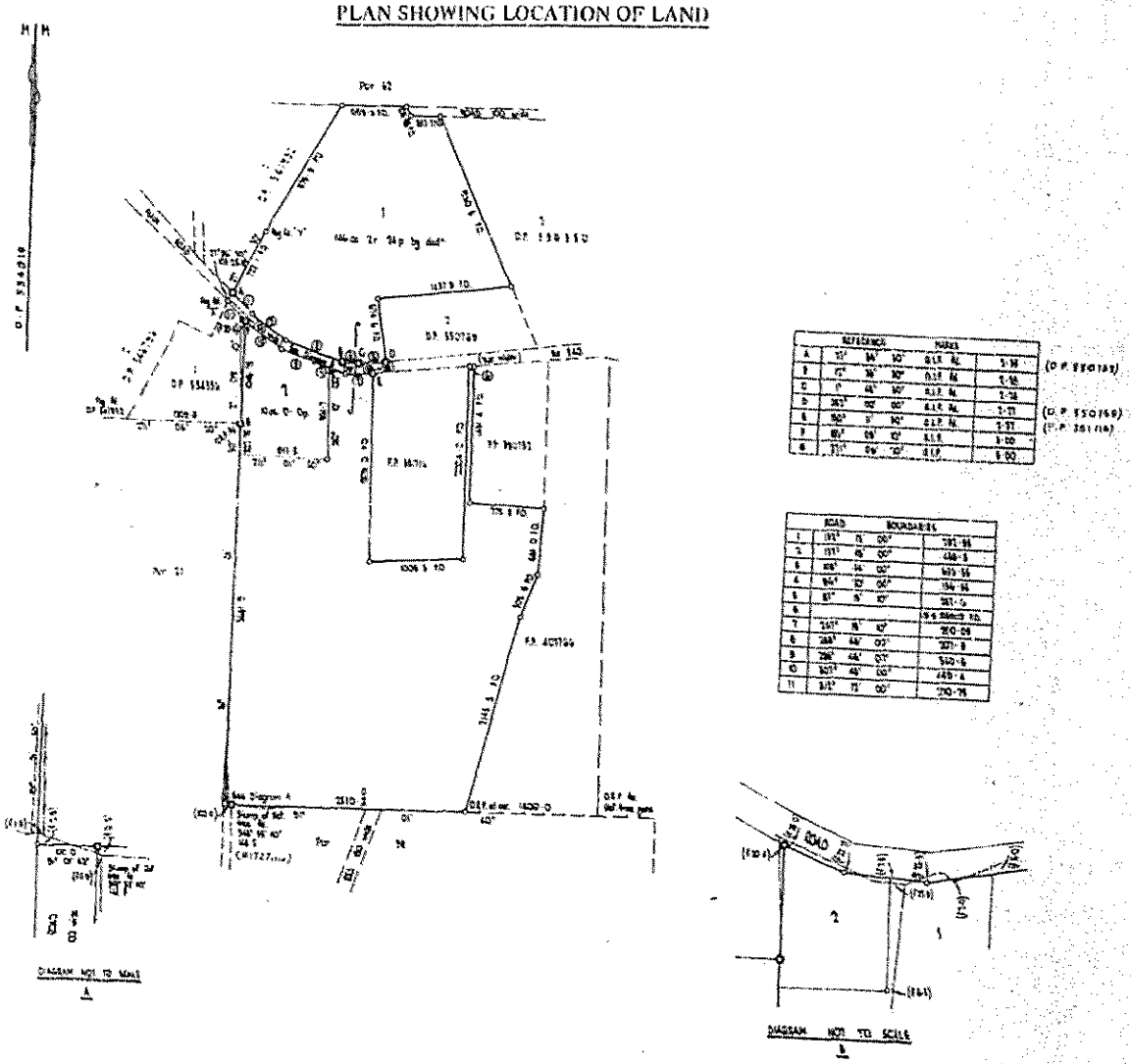
Edition issued 18-5-1972

CANCELLED

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 554819 at South Sawtell Road in the Shire of Coffs Harbour Parish of Bonville and County of Raleigh. EXCEPTING THEREOUT the minerals reserved by the Crown Grants.

FIRST SCHEDULE

ENZO CARRARO, of Coff's Harbour, Produce Merchant and CONSTANCE CARRARO, his wife, as Joint Tenants.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Mortgage No.M519060 to Dixon Stanley Anderson, of Boambee, Farmer.
   Entered 6-12-1971.

Registrar General.

Vol. 11833 Fol. 174

FIRST SCHEDULE (continued)					
REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
This deed is cancelled as to the whole New Certificates of Title have issued on 7-3-1973 for lots in Deposited Plan No. 558661 as follows:- Lots 11 & 12 Vol 12053 Fol 75 & 76 respectively. [signature] REGISTRAR GENERAL					

SECOND SCHEDULE (continued)						
INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

23.10.77 / DP 558661 / Deposited / DP 558661

[redacted]CATE OF TITLE

:W SOUTH WALES PROPERTY ACT, 1900.

Crown Grants Vol.4604 Fol. 45
Vol.4710 Fol. 45
Vol.8464 Fol. 90

Prior Titles Vol.11256 Fol.82

Vol. 11715 Fol. 173

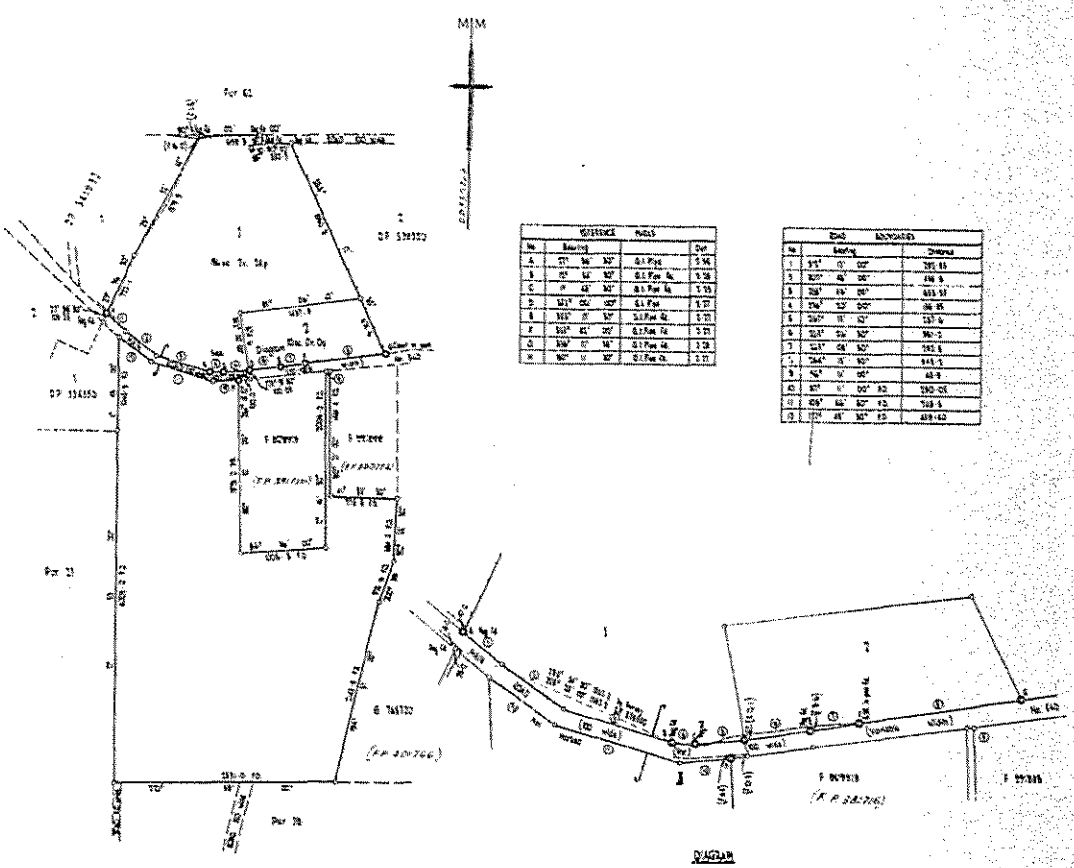
Edition issued 15-11-1971

CANCELLED

ertify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described
ject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND



DIAGRAM

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 550769 at South Sawtell Road in the Shire of Coffs Harbour Parish of Bonville and County of Raleigh. EXCEPTING THEREOUT the minerals reserved by the Crown Grants.

FIRST SCHEDULE

~~DIXON STANLEY ANDERSON of Sawtell, Farmer.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.

Registrar General

V. C. N. BLIGHT, GOVERNMENT PRINTER

Vol. 11715 Fol 173

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
Enzo Carraro of Coffs Harbour, Produce Merchant and Constance Carraro, his wife, as joint tenants	Transfer	M519059	11-11-1971	6-12-1971	J Watson

This deed is cancelled as to the whole

New Certificates of Title have issued on 18-5-1972

for lots in Deposited Plan No. 594819 as follows:-

Lots 1+2 Vol. 11833 Fols 174+175 respectively.

J Watson
REGISTRAR GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
Mortgage	M519060	11-11-1971	to Dixon Stanley Anderson of Boambee, Farmer	6-12-1971	J Watson			

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

NEW SOUTH WALES

ICATE OF TITLE

PERTY ACT, 1900, as amended.

Crown Grants Vol.4604 Fol. 45
Vol.4710 Fol. 45
Vol.8464 Fol. 90
Prior Titles Vol.7815 Fol. 187
Vol.8464 Fol. 90
Vol.11029 Fol.207

Vol. 11256 Fol. 82

CANCELLED

Edition issued 11-2-1970

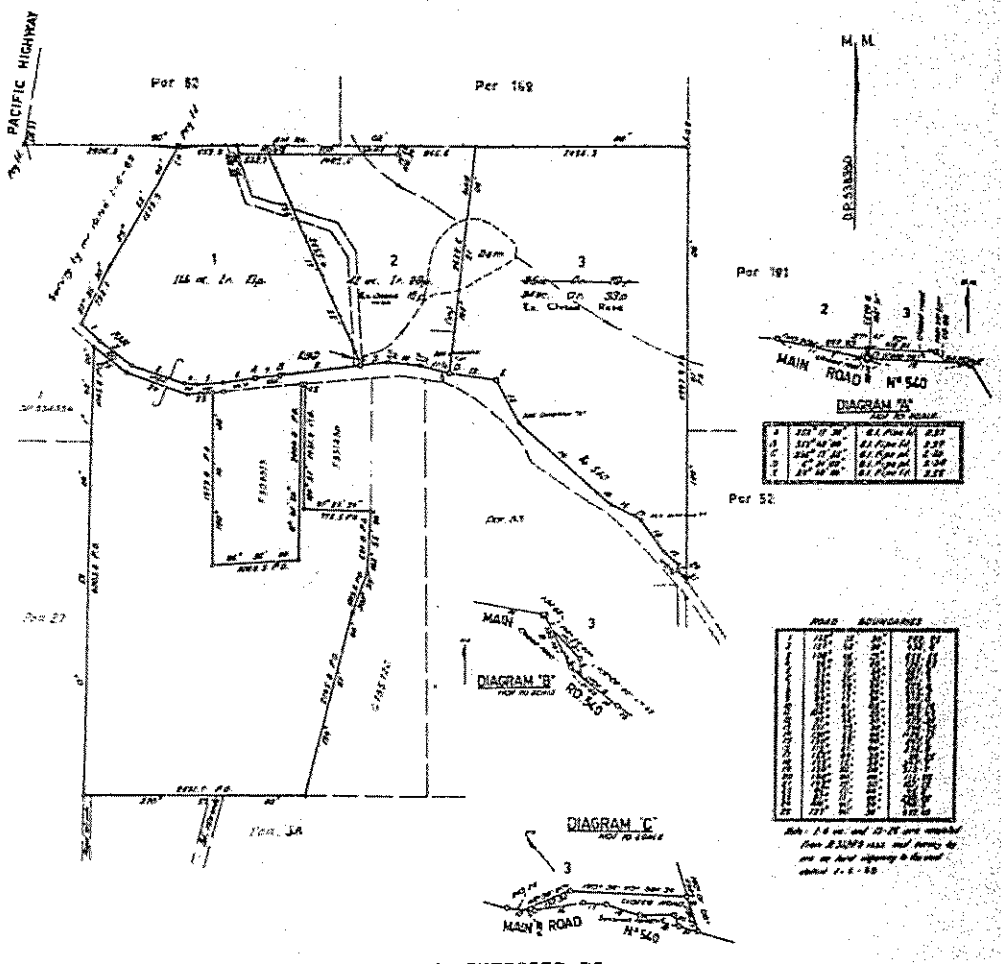
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness L. Huckstepp.

Registrar General.

(Page 1) Vol.

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 538350 in the Shire of Coffs Harbour Parish of Bonville and County of Raleigh. EXCEPTING THEREOUT the minerals reserved by the Crown Grants.

FIRST SCHEDULE

~~JAMES ARTHUR WORLAND of Sawtell, Farmer, as to the part of the land above described formerly comprised in Certificate of Title Volume 7815 Folio 187 and DIXON STANLEY ANDERSON, of Sawtell, Farmer, as to the part formerly comprised in Certificates of Title Volume 8464 Folio 90 and Volume 11029 Folio 207.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grants above referred to.
2. Lease No.H605417 of part to Keith Neville Short, of Sawtell, Farmer (with consent of Mortgagee). Entered 9-11-1961.

Registrar General.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

Vol. 11256 Fol 82

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Dixon Stanley Anderson of Sawtell Farmer	Transfer	L820541	14-3-1975	[illegible]	[illegible]
This deed is cancelled as to the whole					
New Certificates of Title have issued on 15-11-1976					
for lots in Deposited Plan No. 550769 as follows:-					
Lots 1 & 2 Vol. 11715 Fol 173 & 174 respectively.					
[illegible] REGISTRAR GENERAL					

0.R. 550769 7-10-76 [illegible] DP550769 (Cancelled)

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

NEW SOUTH WALES

ICATE OF TITLE

PERTY ACT, 1900, as amended.

Crown Grant Volume 4604 Folio 45
Prior Title Volume 7550 Folio 192

Vol. 11029 Fol. 207

Edition issued 16-4-1969

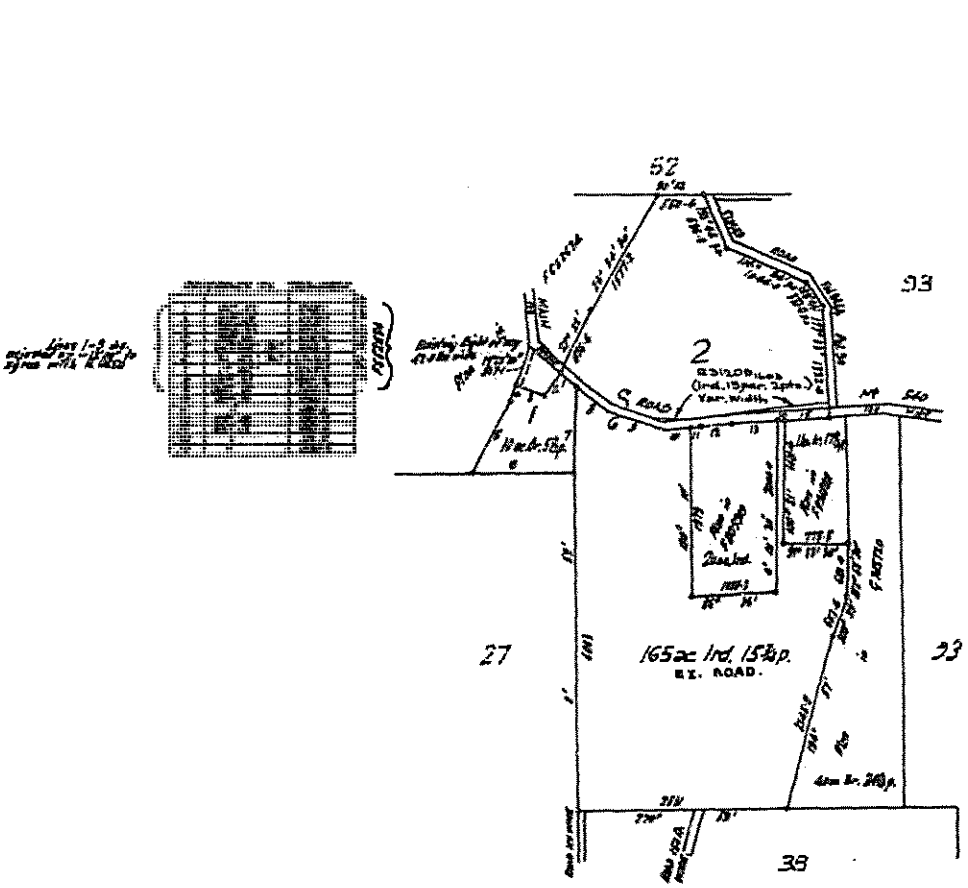
CANCELLED

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness M Flint

Registrar General.

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 534356 at South Sawtell Road in the Shire of Coffs Harbour Parish of Bonville and County of Raleigh. EXCEPTING THEREOUT the road shown in the plan hereon.

FIRST SCHEDULE

DIXON STANLEY ANDERSON, of Sawtell, Farmer.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Lease No.H805417 of part to Keith Neville Short, of Sawtell, Farmer (with consent of Mortgagee). Entered 9-11-1961.

Registrar General.

Vol. 11029 Fol 207

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
This deed is cancelled as to the whole (ex road) New Certificates of Title have issued on 11.2.1970 for lots in Deposited Plan No. 538350 as follows:- Lots 1 to 2 Vol. 11256 Fol. 82 & 83 respectively. [signature] REGISTRAR GENERAL					

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Resumption	L496228		Of the land shown as var width (in 2 parts) in the plan hereon in public road	29.7.1969	[signature]	

(Page 2 of 2 pages)

Appendix B

Laboratory Reports

mgt Environmental Consulting Pty. Ltd.

3 Kingston Town Close, Oakleigh, Victoria 3166, Australia
Postal address: P. O. Box 276, Oakleigh, Victoria 3166, Australia
Telephone: (03) 9564 7055
Fax: (03) 9564 7190
Email: mgt@mgtenv.com.au

CERTIFICATE OF ANALYSIS

Coffey Geotechnics Pty Ltd
Unit 1 18 Hurley Dve
Coffs Harbour
NSW 2450
Site: GEOTCOFH02467AA

Report Number: 240279 Page 1 of 3
Order Number:
Date Received: Jan 29, 2009
Date Sampled: Jan 7, 2009
Date Reported: Feb 4, 2009
Contact: Andrew Ballard

Methods

- MGT100A-GC (based on USEPA8015)Total Recoverable Hydrocarbons
- Method 102 - ANZECC - % Moisture

Comments

Notes

1. The results in this report supersede any previously corresponded results.
2. All Soil Results are reported on a dry basis.
3. Samples are analysed on an as received basis.
4. LOR's are matrix dependent. Stated LOR's may be raised where sample extracts are diluted due to interferences.

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

Authorised

Report Number: 240279

Michael Wright	Onur Mehmet	Orlando Scalzo	Tammy Lakeland
Laboratory Manager	**Client Manager**	**Chief Organic Chemist**	**Chief Inorganic Chemist**
NATA Signatory	**NATA Signatory**	**NATA Signatory**	

NATA
WORLD RECOGNISED ACCREDITATION

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

Environmental Laboratory Industry Group
Member

mgt Environmental Consulting Pty. Ltd.

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		A2
	Lab Number		M09-JA06798
	Matrix		Soil
	Sample Date		Jan 7, 2009
Analysis Type	**LOR**	**Units**	
Total Recoverable Hydrocarbons			
TRH C10-C14 Fraction by GC after Silica Cleanup	50	mg/kg	< 50
TRH C15-C28 Fraction by GC after Silica Cleanup	100	mg/kg	< 100
TRH C29-C36 Fraction by GC after Silica Cleanup	100	mg/kg	< 100
% Moisture	0.1	%	59

COMMENTS:

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	RPD	SPIKE	Method blank
	Lab Number	Batch	Batch	Batch
	QA Description		Spike % Recovery	
	Matrix	Soil	Soil	Soil
	Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	Units		% Recovery	mg/L
Total Recoverable Hydrocarbons				
TRH C10-C14 Fraction by GC after Silica Cleanup		-	-	< 0.05
TRH C15-C28 Fraction by GC after Silica Cleanup		-	-	< 0.1
TRH C29-C36 Fraction by GC after Silica Cleanup		-	-	< 0.1

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Sample Receipt Advice

Company name:	Coffey Geotechnics Pty Ltd COFFS
Contact name:	Andrew Ballard
Client job number:	GEOTCOFH02467AA
COC number:	13390-92
Turn around time:	Five day
Date received:	Jan 29, 2009
MGT lab reference:	240279

Sample information

- ☑ All samples have been received as described on the above COC.
- ☑ COC has been completed correctly.
- ☑ All samples were provided chilled.
- ☑ Appropriately preserved sample containers have been used.
- ☑ All samples were received in good condition.
- ☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

Contact notes

If you have any questions with respect to these samples please contact:

Onur Mehmet on the above number or by e.mail: mehmeto@mgtenv.com.au

Results will be delivered electronically via e.mail to Andrew Ballard - Andrew_Ballard@coffey.com.

mgt Sample Receipt

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CERTIFICATE OF ANALYSIS

Coffey Geotechnics Pty Ltd
Unit 1 18 Hurley Dve
Coffs Harbour
NSW 2450
Site: GEOTCOFH02467AA

Report Number: 239542 Page 1 of 52
Order Number:
Date Received: Jan 13, 2009
Date Sampled: Jan 7, 2009
Date Reported: Jan 21, 2009
Contact: Andrew Ballard

Methods

- USEPA 6010B Heavy Metals & USEPA 7470/71 Mercury
- USEPA 6020 Heavy Metals & USEPA 7470/71 Mercury
- USEPA 8141A Organophosphorus Pesticides
- USEPA 8081A Organochlorine Pesticides
- USEPA 8270C Polycyclic Aromatic Hydrocarbons
- USEPA 8260B - MGT 350A Monocyclic Aromatic Hydrocarbons
- MGT100A-GC (based on USEPA8015)Total Recoverable Hydrocarbons
- Method 102 - ANZECC - % Moisture

Comments

Notes

1. The results in this report supersede any previously corresponded results.
2. All Soil Results are reported on a dry basis.
3. Samples are analysed on an as received basis.
4. LOR's are matrix dependent. Stated LOR's may be raised where sample extracts are diluted due to interferences.

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

Authorised

Report Number: 239542

Michael Wright
Laboratory Manager
NATA Signatory

Onur Mehmet
Client Manager
NATA Signatory

Orlando Scalzo
Chief Organic Chemist
NATA Signatory

Tammy Lakeland
Chief Inorganic Chemist

NATA
WORLD RECOGNISED ACCREDITATION

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

Environmental Laboratory Industry Group
Member

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		A2	B5	C2	C4
	Lab Number		M09-JA01872	M09-JA01873	M09-JA01874	M09-JA01875
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	1000	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	350	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	200	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	0.41	0.08	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	85	104	110	110
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.1	mg/kg	-	< 0.1	-	-
Acenaphthylene	0.1	mg/kg	-	< 0.1	-	-
Anthracene	0.1	mg/kg	-	< 0.1	-	-
Benz(a)anthracene	0.1	mg/kg	-	< 0.1	-	-
Benzo(a)pyrene	0.1	mg/kg	-	< 0.1	-	-
Benzo(b)fluoranthene	0.1	mg/kg	-	< 0.1	-	-
Benzo(g.h.i)perylene	0.1	mg/kg	-	< 0.1	-	-
Benzo(k)fluoranthene	0.1	mg/kg	-	< 0.1	-	-
Chrysene	0.1	mg/kg	-	< 0.1	-	-
Dibenz(a.h)anthracene	0.1	mg/kg	-	< 0.1	-	-
Fluoranthene	0.1	mg/kg	-	< 0.1	-	-
Fluorene	0.1	mg/kg	-	< 0.1	-	-
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	-	< 0.1	-	-
Naphthalene	0.1	mg/kg	-	< 0.1	-	-
Phenanthrene	0.1	mg/kg	-	< 0.1	-	-
Pyrene	0.1	mg/kg	-	< 0.1	-	-
Total PAH	0.1	mg/kg	-	< 0.1	-	-
Chrysene-d12 (surr.)	1	%	-	79	-	-
2-Fluorobiphenyl (surr.)	1	%	-	102	-	-

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		A2	B5	C2	C4
	Lab Number		M09-JA01872	M09-JA01873	M09-JA01874	M09-JA01875
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	113	117	133	113
Tetrachloro-m-xylene (surr.)	1	%	105	125	141	120
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		A2	B5	C2	C4
	Lab Number		M09-JA01872	M09-JA01873	M09-JA01874	M09-JA01875
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	145	102	102	100
% Moisture	0.1	%	63	20	26	25
Heavy Metals (7)						
Arsenic	2	mg/kg	3.5	< 2	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	8.4	< 5	5.1	11
Copper	5	mg/kg	13	6.8	5.3	9.9
Lead	5	mg/kg	15	13	8.9	19
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	26	14	11	20
Heavy Metals						

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		A2	B5	C2	C4
	Lab Number		M09-JA01872	M09-JA01873	M09-JA01874	M09-JA01875
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		C5	C8	C10	D1
	Lab Number		M09-JA01876	M09-JA01877	M09-JA01878	M09-JA01879
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	0.09	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	102	86	102	83
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benz(a)anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chrysene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Naphthalene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Phenanthrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Total PAH	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chrysene-d12 (surr.)	1	%	91	-	71	121
2-Fluorobiphenyl (surr.)	1	%	90	-	68	126

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	Lab Number		M09-JA01876	M09-JA01877	M09-JA01878	M09-JA01879
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	0.11	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	0.14	0.07	0.16	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	145	122	125	74
Tetrachloro-m-xylene (surr.)	1	%	149	122	141	89
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		C5	C8	C10	D1
	Lab Number		M09-JA01876	M09-JA01877	M09-JA01878	M09-JA01879
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	103	107	131	145
% Moisture	0.1	%	27	30	17	20
Heavy Metals (7)						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	9.3	6.4	8.8	7.1
Copper	5	mg/kg	6.6	< 5	7.8	7.5
Lead	5	mg/kg	12	7.3	11	13
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	19	11	23	13
Heavy Metals						

COMMENTS:

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		C5	C8	C10	D1
	Lab Number		M09-JA01876	M09-JA01877	M09-JA01878	M09-JA01879
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	LOR	Units				
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

COMMENTS:

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		D5	D7	D9	E4
	Lab Number		M09-JA01880	M09-JA01881	M09-JA01882	M09-JA01883
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	84	81	101	69
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.1	mg/kg	-	< 0.1	-	< 0.1
Acenaphthylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Anthracene	0.1	mg/kg	-	< 0.1	-	< 0.1
Benz(a)anthracene	0.1	mg/kg	-	< 0.1	-	< 0.1
Benzo(a)pyrene	0.1	mg/kg	-	< 0.1	-	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	-	< 0.1	-	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	-	< 0.1	-	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	-	< 0.1	-	< 0.1
Chrysene	0.1	mg/kg	-	< 0.1	-	< 0.1
Dibenz(a.h)anthracene	0.1	mg/kg	-	< 0.1	-	< 0.1
Fluoranthene	0.1	mg/kg	-	< 0.1	-	< 0.1
Fluorene	0.1	mg/kg	-	< 0.1	-	< 0.1
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	-	< 0.1	-	< 0.1
Naphthalene	0.1	mg/kg	-	< 0.1	-	< 0.1
Phenanthrene	0.1	mg/kg	-	< 0.1	-	< 0.1
Pyrene	0.1	mg/kg	-	< 0.1	-	< 0.1
Total PAH	0.1	mg/kg	-	< 0.1	-	< 0.1
Chrysene-d12 (surr.)	1	%	-	135	-	77
2-Fluorobiphenyl (surr.)	1	%	-	138	-	86

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		D5	D7	D9	E4
	Lab Number		M09-JA01880	M09-JA01881	M09-JA01882	M09-JA01883
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	0.4	0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	0.07	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	75	147	78	132
Tetrachloro-m-xylene (surr.)	1	%	81	137	80	147
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		D5	D7	D9	E4
	Lab Number		M09-JA01880	M09-JA01881	M09-JA01882	M09-JA01883
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	137	143	118	91
% Moisture	0.1	%	29	9.3	22	26
Heavy Metals (7)						
Arsenic	2	mg/kg	< 2	3.6	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	8.3	< 5	8.8	14
Copper	5	mg/kg	< 5	< 5	< 5	< 5
Lead	5	mg/kg	7.9	< 5	7.8	8.6
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	8.6	< 5	13	11
Heavy Metals						

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		D5	D7	D9	E4
	Lab Number		M09-JA01880	M09-JA01881	M09-JA01882	M09-JA01883
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	LOR	Units				
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

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Coffey Geotechnics Pty Ltd	Client Sample ID		E8	E10	E12	F1
Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Lab Number		M09-JA01884	M09-JA01885	M09-JA01886	M09-JA01887
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	0.09	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	66	79	78	87
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benz(a)anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chrysene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	-	< 0.2	< 0.1
Naphthalene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Phenanthrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Total PAH	0.1	mg/kg	< 0.1	-	< 0.2	< 0.1
Chrysene-d12 (surr.)	1	%	91	-	94	118
2-Fluorobiphenyl (surr.)	1	%	106	-	93	123

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		E8	E10	E12	F1
	Lab Number		M09-JA01884	M09-JA01885	M09-JA01886	M09-JA01887
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	0.2	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	130	100	120	146
Tetrachloro-m-xylene (surr.)	1	%	123	101	93	144
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		E8	E10	E12	F1
	Lab Number		M09-JA01884	M09-JA01885	M09-JA01886	M09-JA01887
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	84	101	111	102
% Moisture	0.1	%	21	29	23	20
Heavy Metals (7)						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	6.6	7.7	< 5	8.9
Copper	5	mg/kg	< 5	< 5	< 5	7.1
Lead	5	mg/kg	5.6	8.5	< 5	9.8
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	6.6	8.0	< 5	12
Heavy Metals						

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		E8	E10	E12	F1
	Lab Number		M09-JA01884	M09-JA01885	M09-JA01886	M09-JA01887
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	LOR	Units				
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

COMMENTS:

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Coffey Geotechnics Pty Ltd	Client Sample ID		F6	G2	G4	G6
Unit 1 18 Hurley Dve	Lab Number		M09-JA01888	M09-JA01889	M09-JA01890	M09-JA01891
Coffs Harbour	Matrix		Soil	Soil	Soil	Soil
NSW 2450	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	108	117	83	71
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benz(a)anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chrysene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Fluoranthene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Naphthalene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Phenanthrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Pyrene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Total PAH	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Chrysene-d12 (surr.)	1	%	88	-	64	98
2-Fluorobiphenyl (surr.)	1	%	92	-	109	98

COMMENTS:

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		F6	G2	G4	G6
	Lab Number		M09-JA01888	M09-JA01889	M09-JA01890	M09-JA01891
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	130	113	122	129
Tetrachloro-m-xylene (surr.)	1	%	111	116	115	127
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		F6	G2	G4	G6
	Lab Number		M09-JA01888	M09-JA01889	M09-JA01890	M09-JA01891
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	84	98	80	106
% Moisture	0.1	%	41	26	29	31
Heavy Metals (7)						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	13	8.5	12	7.2
Copper	5	mg/kg	24	8.8	6.9	5.5
Lead	5	mg/kg	19	9.3	7.9	7.4
Nickel	5	mg/kg	5.8	< 5	< 5	< 5
Zinc	5	mg/kg	580	12	20	13
Heavy Metals						

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		F6	G2	G4	G6
	Lab Number		M09-JA01888	M09-JA01889	M09-JA01890	M09-JA01891
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	LOR	Units				
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		G8	G10	G12	I6
	Lab Number		M09-JA01892	M09-JA01893	M09-JA01894	M09-JA01895
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	< 50	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	< 100	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	0.09	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	71	90	86	91
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Acenaphthylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Benz(a)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Benzo(a)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Chrysene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Fluorene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Naphthalene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Phenanthrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Total PAH	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Chrysene-d12 (surr.)	1	%	99	83	84	-
2-Fluorobiphenyl (surr.)	1	%	98	95	84	-

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		G8	G10	G12	I6
	Lab Number		M09-JA01892	M09-JA01893	M09-JA01894	M09-JA01895
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	142	103	129	141
Tetrachloro-m-xylene (surr.)	1	%	130	149	124	143
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		G8	G10	G12	I6
	Lab Number		M09-JA01892	M09-JA01893	M09-JA01894	M09-JA01895
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	90	92	98	100
% Moisture	0.1	%	26	16	34	26
Heavy Metals (7)						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	< 5	8.1	8.5	6.4
Copper	5	mg/kg	< 5	< 5	7.3	6.6
Lead	5	mg/kg	< 5	15	10	12
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	< 5	51	18	12
Heavy Metals						

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		G8	G10	G12	I6
	Lab Number		M09-JA01892	M09-JA01893	M09-JA01894	M09-JA01895
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

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Coffey Geotechnics Pty Ltd	Client Sample ID		QC1	QC3	QC5	TRIP SPIKE SSP 155
Unit 1 18 Hurley Dve	Lab Number		M09-JA01896	M09-JA01897	M09-JA01898	M09-JA01900
Coffs Harbour	Matrix		Soil	Soil	Soil	Soil
NSW 2450	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14 Fraction by GC	50	mg/kg	< 50	< 50	< 50	-
TRH C15-C28 Fraction by GC	100	mg/kg	< 100	< 100	< 100	-
TRH C29-C36 Fraction by GC	100	mg/kg	< 100	< 100	< 100	-
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	76%
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	84%
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	82%
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	91%
Fluorobenzene (surr.)	1	%	83	80	93	84%
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.1	mg/kg	< 0.1	< 0.1	-	-
Acenaphthylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Anthracene	0.1	mg/kg	< 0.1	< 0.1	-	-
Benz(a)anthracene	0.1	mg/kg	< 0.1	< 0.1	-	-
Benzo(a)pyrene	0.1	mg/kg	< 0.1	< 0.1	-	-
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	-	-
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	-	-
Chrysene	0.1	mg/kg	< 0.1	< 0.1	-	-
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	< 0.1	-	-
Fluoranthene	0.1	mg/kg	< 0.1	< 0.1	-	-
Fluorene	0.1	mg/kg	< 0.1	< 0.1	-	-
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	< 0.1	-	-
Naphthalene	0.1	mg/kg	< 0.1	< 0.1	-	-
Phenanthrene	0.1	mg/kg	< 0.1	< 0.1	-	-
Pyrene	0.1	mg/kg	< 0.1	< 0.1	-	-
Total PAH	0.1	mg/kg	< 0.1	< 0.1	-	-
Chrysene-d12 (surr.)	1	%	71	103	-	-
2-Fluorobiphenyl (surr.)	1	%	73	101	-	-

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		QC1	QC3	QC5	TRIP SPIKE SSP 155
	Lab Number		M09-JA01896	M09-JA01897	M09-JA01898	M09-JA01900
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	-
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	123	128	138	-
Tetrachloro-m-xylene (surr.)	1	%	119	122	148	-
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		QC1	QC3	QC5	TRIP SPIKE SSP 155
	Lab Number		M09-JA01896	M09-JA01897	M09-JA01898	M09-JA01900
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	**LOR**	**Units**				
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
Triphenylphosphate (surr.)	1	%	80	92	103	-
% Moisture	0.1	%	19	27	28	
Heavy Metals (7)						
Arsenic	2	mg/kg	< 2	< 2	< 2	-
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Chromium	5	mg/kg	8.5	< 5	7.2	-
Copper	5	mg/kg	6.4	< 5	< 5	-
Lead	5	mg/kg	11	< 5	6.7	-
Nickel	5	mg/kg	< 5	< 5	< 5	-
Zinc	5	mg/kg	9.3	< 5	6.8	-
Heavy Metals						

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		QC1	QC3	QC5	TRIP SPIKE SSP 155
	Lab Number		M09-JA01896	M09-JA01897	M09-JA01898	M09-JA01900
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	LOR	Units				
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		TRIP BLANK SB 150	E8-0.5M	G6-0.5M	G2-0.5M
	Lab Number		M09-JA01901	M09-JA01902	M09-JA01903	M09-JA01904
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	**LOR**	**Units**				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	-	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	-	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	-	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons						
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.08
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	84	87	77	73
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		TRIP BLANK SB 150	E8-0.5M	G6-0.5M	G2-0.5M
	Lab Number		M09-JA01901	M09-JA01902	M09-JA01903	M09-JA01904
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	**LOR**	**Units**				
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	94	102	125
Tetrachloro-m-xylene (surr.)	1	%	-	94	89	131
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Diazinon	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	-	85	85	76
% Moisture	0.1	%	-	17	17	18

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		TRIP BLANK SB 150	E8-0.5M	G6-0.5M	G2-0.5M
	Lab Number		M09-JA01901	M09-JA01902	M09-JA01903	M09-JA01904
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Jan 7, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	**LOR**	**Units**				
Heavy Metals (7)						
Arsenic	2	mg/kg	-	< 2	< 2	6.7
Cadmium	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	-	9.9	10	10
Copper	5	mg/kg	-	< 5	< 5	6.8
Lead	5	mg/kg	-	5.9	8.1	6.3
Nickel	5	mg/kg	-	< 5	< 5	< 5
Zinc	5	mg/kg	-	< 5	6.5	6.1
Heavy Metals						
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1

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Coffey Geotechnics Pty Ltd	Client Sample ID		C2-0.5M	C5-0.5M	C10-0.5M
Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Lab Number		M09-JA01905	M09-JA01906	M09-JA01907
	Matrix		Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	**LOR**	**Units**			
Total Recoverable Hydrocarbons					
TRH C6-C9 Fraction by GC	20	mg/kg	< 20	< 20	< 20
TRH C10-C14 Fraction by GC	50	mg/kg	< 50	< 50	< 50
TRH C15-C28 Fraction by GC	100	mg/kg	< 100	< 100	< 100
TRH C29-C36 Fraction by GC	100	mg/kg	< 100	< 100	< 100
Monocyclic Aromatic Hydrocarbons					
Benzene	0.05	mg/kg	< 0.05	0.08	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Fluorobenzene (surr.)	1	%	81	74	85
Organochlorine Pesticides					
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		C2-0.5M	C5-0.5M	C10-0.5M
	Lab Number		M09-JA01905	M09-JA01906	M09-JA01907
	Matrix		Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	**LOR**	**Units**			
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	136	124	120
Tetrachloro-m-xylene (surr.)	1	%	145	150	131
Organophosphorous Pesticides					
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	93	72	62
% Moisture	0.1	%	17	23	19

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		C2-0.5M	C5-0.5M	C10-0.5M
	Lab Number		M09-JA01905	M09-JA01906	M09-JA01907
	Matrix		Soil	Soil	Soil
	Sample Date		Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	**LOR**	**Units**			
Heavy Metals (7)					
Arsenic	2	mg/kg	< 2	< 2	3.5
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	7.3	17	14
Copper	5	mg/kg	< 5	7.0	10
Lead	5	mg/kg	13	9.2	7.2
Nickel	5	mg/kg	< 5	< 5	< 5
Zinc	5	mg/kg	11	16	12
Heavy Metals					
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1

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Coffey Geotechnics Pty Ltd

Unit 1 18 Hurley Dve
Coffs Harbour
NSW 2450

Client Sample ID			**WB1**
Lab Number			**M09-JA01899**
Matrix			**Water**
Sample Date			**Jan 7, 2009**
Analysis Type	**LOR**	**Units**	
Total Recoverable Hydrocarbons			
TRH C6-C9 Fraction by GC	0.02	mg/L	< 0.02
TRH C10-C14 Fraction by GC	0.05	mg/L	< 0.05
TRH C15-C28 Fraction by GC	0.1	mg/L	< 0.1
TRH C29-C36 Fraction by GC	0.1	mg/L	< 0.1
Monocyclic Aromatic Hydrocarbons			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
Xylenes(ortho.meta and para)	0.001	mg/L	< 0.001
Fluorobenzene (surr.)	1	%	86
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b)fluoranthene	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.001
Total PAH	0.001	mg/L	< 0.001
Chrysene-d12 (surr.)	1	%	59
2-Fluorobiphenyl (surr.)	1	%	68

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		WB1
	Lab Number		M09-JA01899
	Matrix		Water
	Sample Date		Jan 7, 2009
Analysis Type	**LOR**	**Units**	
Organochlorine Pesticides			
4.4'-DDD	0.0001	mg/L	< 0.0001
4.4'-DDE	0.0001	mg/L	< 0.0001
4.4'-DDT	0.0001	mg/L	< 0.0001
a-BHC	0.0001	mg/L	< 0.0001
Aldrin	0.0001	mg/L	< 0.0001
b-BHC	0.0001	mg/L	< 0.0001
Chlordane	0.0005	mg/L	< 0.001
d-BHC	0.0001	mg/L	< 0.0001
Dieldrin	0.0001	mg/L	< 0.0001
Endosulfan I	0.0001	mg/L	< 0.0001
Endosulfan II	0.0001	mg/L	< 0.0001
Endosulfan sulphate	0.0001	mg/L	< 0.0001
Endrin	0.0001	mg/L	< 0.0001
Endrin aldehyde	0.0001	mg/L	< 0.0001
Endrin ketone	0.0001	mg/L	< 0.0001
g-BHC (Lindane)	0.0001	mg/L	< 0.0001
Heptachlor	0.0001	mg/L	< 0.0001
Heptachlor epoxide	0.0001	mg/L	< 0.0001
Hexachlorobenzene	0.0001	mg/L	< 0.0001
Methoxychlor	0.0001	mg/L	< 0.0001
Toxophene	0.0005	mg/L	< 0.001
Dibutylchlorendate (surr.)	1	%	95
Tetrachloro-m-xylene (surr.)	1	%	75
Organophosphorous Pesticides			
Bolstar	0.002	mg/L	< 0.002
Chlorpyrifos	0.002	mg/L	< 0.002
Coumaphos	0.002	mg/L	< 0.002
Demeton-O	0.002	mg/L	< 0.002

COMMENTS:

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID		WB1
	Lab Number		M09-JA01899
	Matrix		Water
	Sample Date		Jan 7, 2009
Analysis Type	**LOR**	**Units**	
Diazinon	0.002	mg/L	< 0.002
Dichlorvos	0.002	mg/L	< 0.002
Disulfoton	0.002	mg/L	< 0.002
Ethion	0.002	mg/L	< 0.002
Ethoprop	0.002	mg/L	< 0.002
Fenitrothion	0.002	mg/L	< 0.002
Fensulfothion	0.002	mg/L	< 0.002
Fenthion	0.002	mg/L	< 0.002
Merphos	0.002	mg/L	< 0.002
Methyl azinphos	0.002	mg/L	< 0.002
Methyl parathion	0.002	mg/L	< 0.002
Mevinphos	0.002	mg/L	< 0.002
Naled	0.002	mg/L	< 0.002
Phorate	0.002	mg/L	< 0.002
Ronnel	0.002	mg/L	< 0.002
Tokuthion	0.002	mg/L	< 0.002
Trichloronate	0.002	mg/L	< 0.002
Triphenylphosphate (surr.)	1	%	86
Heavy Metals (7)			
Arsenic	0.001	mg/L	< 0.001
Cadmium	0.0002	mg/L	< 0.0002
Chromium	0.001	mg/L	< 0.001
Copper	0.001	mg/L	< 0.001
Lead	0.001	mg/L	< 0.001
Nickel	0.001	mg/L	< 0.001
Zinc	0.001	mg/L	< 0.001
Heavy Metals			
Mercury	0.0001	mg/L	< 0.0001

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	A2	A2	RPD	SPIKE
	Lab Number	09-JA01872	09-JA01872	09-JA01872	09-JA01872
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
	Matrix	Soil	Soil	Soil	Soil
	Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	Units			% RPD	% Recovery
Total Recoverable Hydrocarbons					
TRH C10-C14 Fraction by GC		1000	1000	< 1	129
TRH C15-C28 Fraction by GC		350	460	26	-
TRH C29-C36 Fraction by GC		200	220	< 1	-
Monocyclic Aromatic Hydrocarbons					
Benzene		< 0.05	< 0.05	< 1	-
Toluene		0.41	0.43	4.0	-
Ethylbenzene		< 0.05	< 0.05	< 1	-
Xylenes(ortho.meta and para)		< 0.05	< 0.05	< 1	-
Organochlorine Pesticides					
4.4'-DDD		< 0.05	< 0.05	< 1	111
4.4'-DDE		< 0.05	< 0.05	< 1	-
4.4'-DDT		< 0.05	< 0.05	< 1	-
a-BHC		< 0.05	< 0.05	< 1	86
Aldrin		< 0.05	< 0.05	< 1	-
b-BHC		< 0.05	< 0.05	< 1	81
Chlordane		< 0.1	< 0.1	< 1	71
d-BHC		< 0.05	< 0.05	< 1	103
Dieldrin		< 0.05	< 0.05	< 1	-
Endosulfan I		< 0.05	< 0.05	< 1	83
Endosulfan II		< 0.05	< 0.05	< 1	102
Endosulfan sulphate		< 0.05	< 0.05	< 1	71
Endrin		< 0.05	< 0.05	< 1	80
Endrin aldehyde		< 0.05	< 0.05	< 1	-
Endrin ketone		< 0.05	< 0.05	< 1	75
g-BHC (Lindane)		< 0.05	< 0.05	< 1	83
Heptachlor		< 0.05	< 0.05	< 1	-
Heptachlor epoxide		< 0.05	< 0.05	< 1	76
Hexachlorobenzene		< 0.05	< 0.05	< 1	80

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Coffey Geotechnics Pty Ltd
Unit 1 18 Hurley Dve
Coffs Harbour

NSW 2450

Client Sample	A2	A2	RPD	SPIKE
Lab Number	09-JA01872	09-JA01872	09-JA01872	09-JA01872
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
Matrix	Soil	Soil	Soil	Soil
Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	Units		% RPD	% Recovery
Organochlorine Pesticides				
Methoxychlor	< 0.05	< 0.05	< 1	81
Toxophene	< 0.1	< 0.1	< 1	118
Organophosphorous Pesticides				
Bolstar	< 0.2	< 0.2	< 1	-
Chlorpyrifos	< 0.2	< 0.2	< 1	-
Coumaphos	< 0.2	< 0.2	< 1	-
Demeton-O	< 0.2	< 0.2	< 1	-
Diazinon	< 0.2	< 0.2	< 1	116
Dichlorvos	< 0.2	< 0.2	< 1	-
Disulfoton	< 0.2	< 0.2	< 1	-
Ethion	< 0.2	< 0.2	< 1	97
Ethoprop	< 0.2	< 0.2	< 1	-
Fenitrothion	< 0.2	< 0.2	< 1	88
Fensulfothion	< 0.2	< 0.2	< 1	-
Fenthion	< 0.2	< 0.2	< 1	-
Merphos	< 0.2	< 0.2	< 1	-
Methyl azinphos	< 0.2	< 0.2	< 1	-
Methyl parathion	< 0.2	< 0.2	< 1	96
Mevinphos	< 0.2	< 0.2	< 1	123
Naled	< 0.2	< 0.2	< 1	-
Phorate	< 0.2	< 0.2	< 1	-
Ronnel	< 0.2	< 0.2	< 1	-
Tokuthion	< 0.2	< 0.2	< 1	-
Trichloronate	< 0.2	< 0.2	< 1	-
Heavy Metals (7)				
Arsenic	3.5	4.6	< 1	95
Cadmium	< 0.5	< 0.5	< 1	92
Chromium	8.4	10	< 1	89

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Unit 1 18 Hurley Dve
Coffs Harbour

NSW 2450

Client Sample	A2	A2	RPD	SPIKE
Lab Number	09-JA01872	09-JA01872	09-JA01872	09-JA01872
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
Matrix	Soil	Soil	Soil	Soil
Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type / Units			% RPD	% Recovery
Heavy Metals (7)				
Copper	13	15	12	98
Lead	15	16	7.8	82
Nickel	< 5	< 5	< 1	85
Zinc	26	27	4.5	93
Heavy Metals				
Mercury	< 0.1	< 0.1	< 1	82

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	B5	B5	RPD	SPIKE	LCS	Method blank
	Lab Number	09-JA01873	09-JA01873	09-JA01873	09-JA01873	Batch	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	Units			% RPD	% Recovery	% Recovery	mg/L
Polycyclic Aromatic Hydrocarbons							
Acenaphthene		< 0.1	< 0.1	< 1	97	112	< 0.02
Acenaphthylene		< 0.1	< 0.1	< 1	98	105	< 0.02
Anthracene		< 0.1	< 0.1	< 1	114	94	< 0.02
Benz(a)anthracene		< 0.1	< 0.1	< 1	130	105	< 0.02
Benzo(a)pyrene		< 0.1	< 0.1	< 1	101	95	< 0.02
Benzo(b)fluoranthene		< 0.1	< 0.1	< 1	110	92	< 0.02
Benzo(g.h.i)perylene		< 0.1	< 0.1	< 1	121	105	< 0.02
Benzo(k)fluoranthene		< 0.1	< 0.1	< 1	105	99	< 0.02
Chrysene		< 0.1	< 0.1	< 1	104	107	< 0.02
Dibenz(a.h)anthracene		< 0.1	< 0.1	< 1	126	112	< 0.02
Fluoranthene		< 0.1	< 0.1	< 1	98	121	< 0.02
Fluorene		< 0.1	< 0.1	< 1	100	107	< 0.02
Indeno(1.2.3-cd)pyrene		< 0.1	< 0.1	< 1	115	104	< 0.02
Naphthalene		< 0.1	< 0.1	< 1	85	100	< 0.02
Phenanthrene		< 0.1	< 0.1	< 1	102	102	< 0.02
Pyrene		< 0.1	< 0.1	< 1	99	116	< 0.02

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	D9	D9	RPD	SPIKE	LCS	Method blank
	Lab Number	09-JA01882	09-JA01882	09-JA01882	09-JA01882	Batch	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	Units			% RPD	% Recovery	% Recovery	mg/L
Total Recoverable Hydrocarbons							
TRH C6-C9 Fraction by GC		-	-	< 1	82	90	< 0.02
TRH C10-C14 Fraction by GC		< 50	< 50	< 1	113	-	-
TRH C15-C28 Fraction by GC		< 100	< 100	< 1	-	-	-
TRH C29-C36 Fraction by GC		< 100	< 100	< 1	-	-	-
Monocyclic Aromatic Hydrocarbons							
Benzene		< 0.05	< 0.05	< 1	93	-	-
Toluene		< 0.05	< 0.05	< 1	81	-	-
Ethylbenzene		< 0.05	< 0.05	< 1	75	-	-
Xylenes(ortho.meta and para)		< 0.05	< 0.05	< 1	77	-	-
Organochlorine Pesticides							
4.4'-DDD		< 0.05	< 0.05	< 1	129	-	-
4.4'-DDE		< 0.05	< 0.05	< 1	128	-	-
4.4'-DDT		< 0.05	< 0.05	< 1	123	-	-
a-BHC		< 0.05	< 0.05	< 1	121	-	-
Aldrin		< 0.05	< 0.05	< 1	127	-	-
b-BHC		< 0.05	< 0.05	< 1	130	-	-
Chlordane		0.4	0.5	22	-	-	-
d-BHC		< 0.05	< 0.05	< 1	125	-	-
Dieldrin		< 0.05	< 0.05	< 1	127	-	-
Endosulfan I		< 0.05	< 0.05	< 1	129	-	-
Endosulfan II		< 0.05	< 0.05	< 1	127	-	-
Endosulfan sulphate		< 0.05	< 0.05	< 1	127	-	-
Endrin		< 0.05	< 0.05	< 1	130	-	-
Endrin aldehyde		< 0.05	< 0.05	< 1	107	-	-
Endrin ketone		< 0.05	< 0.05	< 1	100	-	-
g-BHC (Lindane)		< 0.05	< 0.05	< 1	119	-	-
Heptachlor		< 0.05	< 0.05	< 1	118	-	-
Heptachlor epoxide		0.07	0.08	-	-	-	-

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Coffey Geotechnics Pty Ltd
Unit 1 18 Hurley Dve
Coffs Harbour

NSW 2450

Client Sample	D9	D9	RPD	SPIKE
Lab Number	09-JA01882	09-JA01882	09-JA01882	09-JA01882
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
Matrix	Soil	Soil	Soil	Soil
Sample Date	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type / Units			% RPD	% Recovery
Organochlorine Pesticides				
Hexachlorobenzene	< 0.05	< 0.05	< 1	100
Methoxychlor	< 0.05	< 0.05	< 1	118
Toxophene	< 0.1	< 0.1	< 1	-
Organophosphorous Pesticides				
Bolstar	< 0.2	< 0.2	< 1	-
Chlorpyrifos	< 0.2	< 0.2	< 1	-
Coumaphos	< 0.2	< 0.2	< 1	-
Demeton-O	< 0.2	< 0.2	< 1	-
Diazinon	< 0.2	< 0.2	< 1	104
Dichlorvos	< 0.2	< 0.2	< 1	-
Disulfoton	< 0.2	< 0.2	< 1	-
Ethion	< 0.2	< 0.2	< 1	101
Ethoprop	< 0.2	< 0.2	< 1	-
Fenitrothion	< 0.2	< 0.2	< 1	95
Fensulfothion	< 0.2	< 0.2	< 1	-
Fenthion	< 0.2	< 0.2	< 1	-
Merphos	< 0.2	< 0.2	< 1	-
Methyl azinphos	< 0.2	< 0.2	< 1	-
Methyl parathion	< 0.2	< 0.2	< 1	84
Mevinphos	< 0.2	< 0.2	< 1	117
Naled	< 0.2	< 0.2	< 1	-
Phorate	< 0.2	< 0.2	< 1	-
Ronnel	< 0.2	< 0.2	< 1	-
Tokuthion	< 0.2	< 0.2	< 1	-
Trichloronate	< 0.2	< 0.2	< 1	-
Heavy Metals (7)				
Arsenic	< 2	< 2	< 1	83
Cadmium	< 0.5	< 0.5	< 1	87

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Unit 1 18 Hurley Dve
Coffs Harbour

NSW 2450

Client Sample	D9	D9	RPD	SPIKE
Lab Number	09-JA01882	09-JA01882	09-JA01882	09-JA01882
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
Matrix	Soil	Soil	Soil	Soil
Sample Date	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type / Units			% RPD	% Recovery
Heavy Metals (7)				
Chromium	8.8	7.2	20	82
Copper	< 5	< 5	< 1	93
Lead	7.8	7.4	5.9	79
Nickel	< 5	< 5	< 1	76
Zinc	13	11	15	85
Heavy Metals				
Mercury	< 0.1	< 0.1	< 1	74

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	G8	G8	RPD	SPIKE	LCS	Method blank
	Lab Number	09-JA01892	09-JA01892	09-JA01892	09-JA01892	Batch	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	Units			% RPD	% Recovery	% Recovery	mg/L
Total Recoverable Hydrocarbons							
TRH C10-C14 Fraction by GC		< 50	< 50	< 1	81	-	-
TRH C15-C28 Fraction by GC		< 100	< 100	< 1	-	-	-
TRH C29-C36 Fraction by GC		< 100	< 100	< 1	-	-	-
Organochlorine Pesticides							
4.4'-DDD		< 0.05	< 0.05	< 1	-	117	< 0.005
4.4'-DDE		< 0.05	< 0.05	< 1	-	119	< 0.005
4.4'-DDT		< 0.05	< 0.05	< 1	-	110	< 0.005
a-BHC		< 0.05	< 0.05	< 1	-	106	< 0.005
Aldrin		< 0.05	< 0.05	< 1	-	116	< 0.005
b-BHC		< 0.05	< 0.05	< 1	-	114	< 0.005
Chlordane		< 0.1	< 0.1	< 1	-	-	< 0.01
d-BHC		< 0.05	< 0.05	< 1	-	109	< 0.005
Dieldrin		< 0.05	< 0.05	< 1	-	122	< 0.005
Endosulfan I		< 0.05	< 0.05	< 1	-	120	< 0.005
Endosulfan II		< 0.05	< 0.05	< 1	-	117	< 0.005
Endosulfan sulphate		< 0.05	< 0.05	< 1	-	111	< 0.005
Endrin		< 0.05	< 0.05	< 1	-	108	< 0.005
Endrin aldehyde		< 0.05	< 0.05	< 1	-	112	< 0.005
Endrin ketone		< 0.05	< 0.05	< 1	-	90	< 0.005
g-BHC (Lindane)		< 0.05	< 0.05	< 1	-	106	< 0.005
Heptachlor		< 0.05	< 0.05	< 1	-	115	< 0.005
Heptachlor epoxide		< 0.05	< 0.05	< 1	-	117	< 0.005
Hexachlorobenzene		< 0.05	< 0.05	< 1	-	122	< 0.005
Methoxychlor		< 0.05	< 0.05	< 1	-	123	< 0.005
Toxophene		< 0.1	< 0.1	< 1	-	-	< 0.01
Organophosphorous Pesticides							
Bolstar		< 0.2	< 0.2	< 1	-	-	-
Chlorpyrifos		< 0.2	< 0.2	< 1	-	-	-

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Unit 1 18 Hurley Dve
Coffs Harbour

NSW 2450

Client Sample	G8	G8	RPD	SPIKE
Lab Number	09-JA01892	09-JA01892	09-JA01892	09-JA01892
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
Matrix	Soil	Soil	Soil	Soil
Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type / Units			% RPD	% Recovery
Organophosphorous Pesticides				
Coumaphos	< 0.2	< 0.2	< 1	-
Demeton-O	< 0.2	< 0.2	< 1	-
Diazinon	< 0.2	< 0.2	< 1	96
Dichlorvos	< 0.2	< 0.2	< 1	-
Disulfoton	< 0.2	< 0.2	< 1	-
Ethion	< 0.2	< 0.2	< 1	93
Ethoprop	< 0.2	< 0.2	< 1	-
Fenitrothion	< 0.2	< 0.2	< 1	95
Fensulfothion	< 0.2	< 0.2	< 1	-
Fenthion	< 0.2	< 0.2	< 1	-
Merphos	< 0.2	< 0.2	< 1	-
Methyl azinphos	< 0.2	< 0.2	< 1	-
Methyl parathion	< 0.2	< 0.2	< 1	105
Mevinphos	< 0.2	< 0.2	< 1	108
Naled	< 0.2	< 0.2	< 1	-
Phorate	< 0.2	< 0.2	< 1	-
Ronnel	< 0.2	< 0.2	< 1	-
Tokuthion	< 0.2	< 0.2	< 1	-
Trichloronate	< 0.2	< 0.2	< 1	-
Heavy Metals (7)				
Arsenic	< 2	< 2	< 1	89
Cadmium	< 0.5	< 0.5	< 1	93
Chromium	< 5	< 5	< 1	94
Copper	< 5	< 5	< 1	94
Lead	< 5	< 5	< 1	88
Nickel	< 5	< 5	< 1	92
Zinc	< 5	< 5	< 1	91
Heavy Metals				

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Coffs Harbour

NSW 2450

Client Sample	G8	G8	RPD	SPIKE
Lab Number	09-JA01892	09-JA01892	09-JA01892	09-JA01892
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
Matrix	Soil	Soil	Soil	Soil
Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type / Units			% RPD	% Recovery
Heavy Metals				
Mercury	< 0.1	< 0.1	< 1	88

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	WB1	WB1	RPD	SPIKE
	Lab Number	09-JA01899	09-JA01899	09-JA01899	09-JA01899
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery
	Matrix	Water	Water	Water	Water
	Sample Date	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009	Jan 7, 2009
Analysis Type	Units			% RPD	% Recovery
Heavy Metals					
Mercury		< 0.0001	< 0.0001	< 1	91

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Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	G6-0.5M	G6-0.5M	RPD	SPIKE	LCS	Method blank
	Lab Number	09-JA01903	09-JA01903	09-JA01903	09-JA01903	Batch	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	Units			% RPD	% Recovery	% Recovery	mg/L
Monocyclic Aromatic Hydrocarbons							
Benzene		< 0.05	< 0.05	< 1	79	96	< 0.005
Toluene		< 0.05	< 0.05	< 1	75	87	< 0.005
Ethylbenzene		< 0.05	< 0.05	< 1	81	91	< 0.005
Xylenes(ortho.meta and para)		< 0.05	< 0.05	< 1	76	86	< 0.005

COMMENTS:

3 Kingston Town Close, Oakleigh, Victoria 3166, Australia
Postal address: P. O. Box 276, Oakleigh, Victoria 3166, Australia
Telephone: (03) 9564 7055
Fax: (03) 9564 7190
Email: mgt@mgtenv.com.au

Coffey Geotechnics Pty Ltd Unit 1 18 Hurley Dve Coffs Harbour NSW 2450	Client Sample ID	C2-0.5M	C2-0.5M	RPD	SPIKE	LCS	Method blank
	Lab Number	09-JA01905	09-JA01905	09-JA01905	09-JA01905	Batch	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	Units			% RPD	% Recovery	% Recovery	mg/L
Total Recoverable Hydrocarbons							
TRH C10-C14 Fraction by GC		< 50	< 50	< 1	84	100	< 0.05
TRH C15-C28 Fraction by GC		< 100	< 100	< 1	-	-	< 0.1
TRH C29-C36 Fraction by GC		< 100	< 100	< 1	-	-	< 0.1
Organophosphorous Pesticides							
Bolstar		< 0.2	< 0.2	< 1	-	-	< 0.002
Chlorpyrifos		< 0.2	< 0.2	< 1	-	-	< 0.002
Coumaphos		< 0.2	< 0.2	< 1	-	-	< 0.002
Demeton-O		< 0.2	< 0.2	< 1	-	-	< 0.002
Diazinon		< 0.2	< 0.2	< 1	-	102	< 0.002
Dichlorvos		< 0.2	< 0.2	< 1	-	-	< 0.002
Disulfoton		< 0.2	< 0.2	< 1	-	-	< 0.002
Ethion		< 0.2	< 0.2	< 1	-	116	< 0.002
Ethoprop		< 0.2	< 0.2	< 1	-	-	< 0.002
Fenitrothion		< 0.2	< 0.2	< 1	-	101	< 0.002
Fensulfothion		< 0.2	< 0.2	< 1	-	-	< 0.002
Fenthion		< 0.2	< 0.2	< 1	-	-	< 0.002
Merphos		< 0.2	< 0.2	< 1	-	-	< 0.002
Methyl azinphos		< 0.2	< 0.2	< 1	-	-	< 0.002
Methyl parathion		< 0.2	< 0.2	< 1	-	78	< 0.002
Mevinphos		< 0.2	< 0.2	< 1	-	100	< 0.002
Naled		< 0.2	< 0.2	< 1	-	-	< 0.002
Phorate		< 0.2	< 0.2	< 1	-	-	< 0.002
Ronnel		< 0.2	< 0.2	< 1	-	-	< 0.002
Tokuthion		< 0.2	< 0.2	< 1	-	-	< 0.002
Trichloronate		< 0.2	< 0.2	< 1	-	-	< 0.002
Heavy Metals (7)							
Arsenic		< 2	< 2	< 1	78	117	< 0.05
Cadmium		< 0.5	< 0.5	< 1	85	113	< 0.02

COMMENTS:

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Coffey Geotechnics Pty Ltd
Unit 1 18 Hurley Dve
Coffs Harbour

NSW 2450

Client Sample	C2-0.5M	C2-0.5M	RPD	SPIKE	LCS	Method blank
Lab Number	09-JA01905	09-JA01905	09-JA01905	09-JA01905	Batch	Batch
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009	Jan 8, 2009
Analysis Type	Units		% RPD	% Recovery	% Recovery	mg/L
Heavy Metals (7)						
Chromium		7.3	6.7	8.3	80	110	< 0.2
Copper		< 5	< 5	< 1	93	110	< 0.2
Lead		13	11	18	83	111	< 0.05
Nickel		< 5	< 5	< 1	81	110	< 0.2
Zinc		11	11	3.4	79	108	< 0.2
Heavy Metals							
Mercury		< 0.1	< 0.1	< 1	79	82	< 0.005

COMMENTS:

mgt Environmental Consulting Pty. Ltd.

3 Kingston Town Close, Oakleigh, Victoria 3166, Australia
Postal address: P. O. Box 276, Oakleigh, Victoria 3166, Australia
Telephone: (03) 9564 7055
Fax: (03) 9564 7190
Email: mgt@mgtenv.com.au

Sample Receipt Advice

Company name:	Coffey Environments Pty Ltd NSW
Contact name:	Not provided
Client job number:	GEOTCOFH02467AA
COC number:	13390-92
Turn around time:	Five day
Date received:	Jan 13, 2009
MGT lab reference:	239542

Sample information

- ☑ All samples have been received as described on the above COC.
- ☑ COC has been completed correctly.
- ☑ All samples were provided chilled.
- ☑ Appropriately preserved sample containers have been used.
- ☑ All samples were received in good condition.
- ☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

Contact notes

If you have any questions with respect to these samples please contact:

Onur Mehmet on the above number or by e.mail: mehmeto@mgtenv.com.au

mgt Sample Receipt

coffey

Chain of Custody

TNT 946272161

No: 13990

Laboratory Quotation / Order No:

Job No. GEOTCOFH02467AA

Sheet 1 of 3

Dispatch to: (Address & Phone No.) MGT 3 Kingston Town CL Oakleigh, Vic, 3166	Sampled by: ST, JP	Consigning Officer: ST Date Dispatched: 12/1/09
Attention:	Project Manager: (report results to) Andrew Ballard Andrew_ballard@coffey.com	Courier Service: TNT Consignment Note No:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
~~COFFEY GEOTECH~~ COFFEY GEOTECHNICS COFFS HARBOUR - ST			MGT Robyn Rep: 239542	13/1/09	9.15am

Comments	Sample Matrix	Container Type and Preservative	Sample No.	Date Sampled	Analyses Required: PAHs	TPHs / BTEX	MAHs = BTEX	Metals: 8	OCP / OPP	Sample Condition on Receipt
	Soil	250mL Glass Jar	A2	7/1/09		/		/	/	
			B5		/	/		/	/	
			C2			/		/	/	
			C4			/		/	/	
			C5	8/1/09	/	/		/	/	
			C8	7/1/09		/		/	/	
			C10	8/1/09	/	/		/	/	
			D1	7/1/09	/	/		/	/	
			D5			/		/	/	
			D7		/	/		/	/	
			D9	8/1/09		/		/	/	
			E4	7/1/09	/	/		/	/	
			E8	7/1/09		/		/	/	
			E10	8/1/09		/		/	/	
			E12	8/1/09	/	/		/	/	
			F1	7/1/09	/	/		/	/	
			F8	8/1/09		/		/	/	

Special Laboratory Instructions: METALS 8: As, Cd, Cr, Co, Pb, Ni, Zn, Mg

OCP - Organochlorine pesticides
OPP - Organophosphorus pesticides

Detection Limits: NORMAL

Turnaround Required: NORMAL

JOB NUMBER MUST BE REFERENCED ON ALL SUBSEQUENT PAGES

Copies: WHITE: Sign on release. YELLOW: If dispatched to interstate Lab, Lab to sign on receipt and fax back to Coffey. BLUE: To be returned with results.

coffey

Chain of Custody

No: 13331

Laboratory Quotation / Order No.

Job No: GEOTCOFH024-67AA

Sheet 2 of 3

Dispatch to: (Address & Phone No.)	Sampled by:	Consigning Officer: ST Date Dispatched: 12/1/09
Attention:	Project Manager: (report results to)	Courier Service: TNT Consignment Note No:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
			M&T Robyn	13/1/09	9.15am
			Rep: 239542		

Comments	Sample Matrix	Container Type and Preservative	Sample No.	Date Sampled	Analyses Required: PAHs	TPHs	BTEX	Metals: 8	OCP/OPP	HOLD	Sample Condition on Receipt
	Soil	250ML GLASS JAR	G2	7/1/09		/		/	/		
			G4		/	/		/	/		
			G6		/	/		/	/		
			G8		/	/		/	/		
			G10	8/1/09	/	/		/	/		
			G12	8/1/09	/	/		/	/		
			I6	7/1/09		/		/	/		
			C12	8/1/09						/	
			E2	7/1/09						/	
			E6							/	
			I8							/	
			QC1		/	/		/	/		
			QC3		/	/		/	/		
			QC5			/		/	/		
	WATER	AMBER/VIALS/PLASTIC BOTTLE	WB1		/	/		/	/		
SSP155		VIALS	TRIP SPIKE				/				
SB150		VIALS	TRIP BLANK				/				

Special Laboratory Instructions:

Detection Limits:

Turnaround Required:

JOB NUMBER MUST BE REFERENCED ON ALL SUBSEQUENT PAGES

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coffey

Chain of Custody

No.

Laboratory Quotation / Order No.

Job No: GEOTCOFH0246?AA

Sheet 3 of 3

Dispatch to: (Address & Phone No.)	Sampled by:	Consigning Officer: ST Date Dispatched: 12/1/08
Attention:	Project Manager: (report results to)	Courier Service: TNT Consignment Note No:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
			MGT [signature]	13/1/09	9.15am
			Rep: 239542		

Comments	Sample Matrix	Container Type and Preservative	Sample No.	Date Sampled	PAHs	TPHs/BTEX	MAHs = BTEX	Metals: 8	OCP/OPP	Sample Condition on Receipt
	SOIL	250mL GLASS JAR	E8 - 0.5m	8/1/09		/		/	/	
	↓	↓	G6 - 0.5m	↓		/		/	/	
	↓	↓	G2 - 0.5m	↓		/		/	/	
	↓	↓	C2 - 0.5m	↓		/		/	/	
	↓	↓	C5 - 0.5m	↓		/		/	/	
	↓	↓	C10 - 0.5m	↓		/		/	/	

Special Laboratory Instructions:

Detection Limits:

Turnaround Required:

JOB NUMBER MUST BE REFERENCED ON ALL SUBSEQUENT PAGES

Copies: WHITE: Sign on release. **YELLOW:** If dispatched to Interstate Lab, Lab to sign on receipt and fax back to Coffey. **BLUE:** To be returned with results.

ANALYTICAL REPORT

19 January 2009

Coffey Geotechnics Pty Ltd
1/18 Hurley Drive
Coffs Harbour
NSW 2450

Attention: **Andrew Ballard**

Your Reference: GEOTCOFH02467AA

Our Reference: 66697 Samples: 16 Soils
Received: 13/1/09

Preliminary Report Sent: Not Issued

These samples were analysed in accordance with your written instructions.

For and on Behalf of:
SGS ENVIRONMENTAL SERVICES

Client Services:	Simon Matthews	Simon.Matthews@sgs.com
Sample Receipt:	Angela Mamalicos	AU.SampleReceipt.Sydney@sgs.com
Laboratory Manager:	Edward Ibrahim	Edward.Ibrahim@sgs.com
Business Manager:	Con Benikos	Con.Benikos@sgs.com

Results Approved and/or Authorised by:

Ravee Sivasubramaniam
Asbestos Signatory

Ly Kim Ha
Organics Signatory

Huong Crawford
Metals Signatory

SGS Australia Pty Ltd
ABN 44 000 964 278

Environmental Services Unit 16/33 Maddox Street Alexandria NSW 2015 Australia
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TRH in soil with..C6-C9 by P/T Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-1 QC6 Soil
Date Extracted (TRH C6-C9 PT)		13/01/2009
Date Analysed (TRH C6-C9 PT)		13/01/2009
TRH C_6 - C_9 P&T	mg/kg	<20
Date Extracted (TRH C10-C36)		13/01/2009
Date Analysed (TRH C10-C36)		13/01/2009
TRH C_{10} - C_{14}	mg/kg	<20
TRH C_{15} - C_{28}	mg/kg	<50
TRH C_{29} - C_{36}	mg/kg	<50

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OC Pesticides in Soil Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-1 QC6 Soil
Date Extracted		13/01/2009
Date Analysed		13/01/2009
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC(Lindane)	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
Aldrin	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
o,p-DDE	mg/kg	<0.1
alpha-Endosulfan	mg/kg	<0.1
trans-Chlordane	mg/kg	<0.1
cis-Chlordane	mg/kg	<0.1
trans-Nonachlor	mg/kg	<0.1
p,p-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
o,p-DDD	mg/kg	<0.1
o,p-DDT	mg/kg	<0.1
beta-Endosulfan	mg/kg	<0.1
p,p-DDD	mg/kg	<0.1
p,p-DDT	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Endrin Ketone	mg/kg	<0.1
2,4,5,6-Tetrachloro-m-xylene *(Surrogate*	%	70

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OP Pesticides in Soil Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-1 QC6 Soil
Date Extracted		13/01/2009
Date Analysed		13/01/2009
Chlorpyrifos	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Bromofos Ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
OP_Surrogate 1	%	70

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Metals in Soil by ICP-OES Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-1 QC6 Soil
Date Extracted (Metals)		14/01/2009
Date Analysed (Metals)		14/01/2009
Arsenic	mg/kg	<3
Cadmium	mg/kg	<0.3
Chromium	mg/kg	8.3
Copper	mg/kg	4.6
Lead	mg/kg	7
Nickel	mg/kg	1.6
Zinc	mg/kg	7.7

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Mercury Cold Vapor/Hg Analyser Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-1 QC6 Soil
Date Extracted (Mercury)		13/01/2009
Date Analysed (Mercury)		13/01/2009
Mercury	mg/kg	<0.05

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Asbestos ID in soil Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-2 B5 Soil	66697-3 C5 Soil	66697-4 C10 Soil	66697-5 D1 Soil	66697-6 D7 Soil
Date Analysed		16/01/2009	16/01/2009	16/01/2009	16/01/2009	16/01/2009
Sample Description		75g soil, plant matter	118g soil, plant matter	70g soil, plant matter	124g soil, plant matter	95g soil, plant matter
Asbestos ID in soil	-	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*

Asbestos ID in soil Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-7 E4 Soil	66697-8 E8 Soil	66697-9 E12 Soil	66697-10 F1 Soil	66697-11 F6 Soil
Date Analysed		16/01/2009	16/01/2009	16/01/2009	16/01/2009	16/01/2009
Sample Description		91g soil, plant matter	95g soil, plant matter	85g soil, plant matter	90g soil, plant matter	71g soil, plant matter
Asbestos ID in soil	-	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*

Asbestos ID in soil Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ----------	66697-12 G4 Soil	66697-13 G6 Soil	66697-14 G8 Soil	66697-15 G10 Soil	66697-16 G12 Soil
Date Analysed		16/01/2009	16/01/2009	16/01/2009	16/01/2009	16/01/2009
Sample Description		95g soil, plant matter	110g soil, plant matter	84g soil, plant matter	112g soil, plant matter	115g soil, plant matter
Asbestos ID in soil	-	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*	No asbestos detected Organic fibres detected*

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Moisture Our Reference: Your Reference Sample Matrix Depth	UNITS ---------- ---------- 	66697-1 QC6 Soil
Date Analysed (moisture)		13/01/2009
Moisture	%	28

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Method ID	Methodology Summary
SEO-018	BTEX / C6-C9 Hydrocarbons - Soil samples are extracted with methanol, purged and concentrated by a purge and trap apparatus, and then analysed using GC/MS technique. Water samples undergo the same analysis without the extraction step. Based on USEPA 5030B and 8260B.
SEO-020	Total Recoverable Hydrocarbons - determined by solvent extraction with dichloromethane / acetone for soils and dichloromethane for waters, followed by instrumentation analysis using GC/FID. Where applicable Solid Phase Extraction Manifold technique is used for aliphatic / aromatic fractionation.
SEO-005	OC/OP/PCB - Determination of a suite of Organchlorine Pesticides, Chlorinated Organo-phosphorus Pesticides and Polychlorinated Biphenyls (PCB's) by liquid-liquid extraction using dichloromethane for waters, or mechanical extraction using acetone / hexane for soils, followed by instrumentation analysis using GC/ECD. Based on USEPA 8081/8082.
SEM-010	Determination of elements by ICP-OES following appropriate sample preparation / digestion process. Based on USEPA 6010C / APHA 21st Edition, 3120B.
SEM-005	Mercury - determined by Cold-Vapour AAS following appropriate sample preparation or digestion process. Based on APHA 21st Edition, 3112B.
AN602	Analysed using in house method AN602 - Qualitative identification of Asbestos Fibres, Synthetic Mineral Fibres and Organic Fibres in bulk samples (including building materials and soils) using Polarised Light Microscopy and Dispersion Staining Techniques. Our NATA Accreditation does not currently cover the identification of Synthetic Mineral Fibres and Organic Fibres, however, according to new NATA requirements, the reporting of these fibres is compulsory if detected.
AN002	Preparation of soils, sediments and sludges undergo analysis by either air drying, compositing, subsampling and 1:5 soil water extraction where required. Moisture content is determined by drying the sample at 105 ± 5°C.

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QUALITY CONTROL TRH in soil with..C6-C9 by P/T	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Date Extracted (TRH C6-C9 PT)				13/01/09	[NT]	[NT]	LCS	13/01/09%
Date Analysed (TRH C6-C9 PT)				13/01/09	[NT]	[NT]	LCS	13/01/09%
TRH C_6 - C_9 P&T	mg/kg	20	SEO-018	<20	[NT]	[NT]	LCS	103%
Date Extracted (TRH C10-C36)				13/01/09	[NT]	[NT]	LCS	13/01/09%
Date Analysed (TRH C10-C36)				13/01/09	[NT]	[NT]	LCS	13/01/09%
TRH C_{10} - C_{14}	mg/kg	20	SEO-020	<20	[NT]	[NT]	LCS	100%
TRH C_{15} - C_{28}	mg/kg	50	SEO-020	<50	[NT]	[NT]	LCS	88%
TRH C_{29} - C_{36}	mg/kg	50	SEO-020	<50	[NT]	[NT]	LCS	85%
QUALITY CONTROL OC Pesticides in Soil	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Date Extracted				13/01/09	66697-1	13/01/2009 || 13/01/2009	LCS	13/01/09%
Date Analysed				13/01/09	66697-1	13/01/2009 || 13/01/2009	LCS	13/01/09%
HCB	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
gamma-BHC(Lindane)	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
Heptachlor	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	LCS	111%
Aldrin	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	LCS	124%
beta-BHC	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
delta-BHC	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	LCS	106%
Heptachlor Epoxide	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
o,p-DDE	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
alpha-Endosulfan	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
trans-Chlordane	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
cis-Chlordane	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
trans-Nonachlor	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
p,p-DDE	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
Dieldrin	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	LCS	117%
Endrin	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	LCS	105%
o,p-DDD	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
o,p-DDT	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
beta-Endosulfan	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
p,p-DDD	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
p,p-DDT	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	LCS	126%
Endosulfan Sulphate	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]

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QUALITY CONTROL OC Pesticides in Soil	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Methoxychlor	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
Endrin Ketone	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
2,4,5,6-Tetrachloro-m-xylene *(Surrogate*	%	0	SEO-005	107	66697-1	70 || 70 || RPD: 0	LCS	105%
QUALITY CONTROL OP Pesticides in Soil	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Date Extracted				13/01/09	66697-1	13/01/2009 || 13/01/2009	LCS	12/01/09%
Date Analysed				13/01/09	66697-1	13/01/2009 || 13/01/2009	LCS	12/01/09%
Chlorpyrifos	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	LCS	120%
Fenitrothion	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
Bromofos Ethyl	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
Ethion	mg/kg	0.1	SEO-005	<0.1	66697-1	<0.1 || <0.1	[NR]	[NR]
OP_Surrogate 1	%	0	SEO-005	107	66697-1	70 || 70 || RPD: 0	LCS	105%
QUALITY CONTROL Metals in Soil by ICP-OES	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Date Extracted (Metals)				14/01/2009	[NT]	[NT]	LCS	14/01/2009%
Date Analysed (Metals)				14/01/2009	[NT]	[NT]	LCS	14/01/2009%
Arsenic	mg/kg	3	SEM-010	<3	[NT]	[NT]	LCS	97%
Cadmium	mg/kg	0.3	SEM-010	<0.3	[NT]	[NT]	LCS	100%
Chromium	mg/kg	0.3	SEM-010	<0.3	[NT]	[NT]	LCS	99%
Copper	mg/kg	0.5	SEM-010	<0.5	[NT]	[NT]	LCS	101%
Lead	mg/kg	1	SEM-010	<1	[NT]	[NT]	LCS	100%
Nickel	mg/kg	0.5	SEM-010	<0.5	[NT]	[NT]	LCS	99%
Zinc	mg/kg	0.5	SEM-010	<0.5	[NT]	[NT]	LCS	95%

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QUALITY CONTROL Mercury Cold Vapor/Hg Analyser	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Date Extracted (Mercury)				13/01/09	[NT]	[NT]	LCS	13/01/09%
Date Analysed (Mercury)				13/01/09	[NT]	[NT]	LCS	13/01/09%
Mercury	mg/kg	0.05	SEM-005	<0.05	[NT]	[NT]	LCS	105%

QUALITY CONTROL Asbestos ID in soil	UNITS	LOR	METHOD	Blank
Date Analysed				[NT]

QUALITY CONTROL Moisture	UNITS	LOR	METHOD	Blank
Date Analysed (moisture)				[NT]
Moisture	%	1	AN002	[NT]

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Result Codes

[INS]	:	Insufficient Sample for this test	[RPD]	:	Relative Percentage Difference
[NR]	:	Not Requested	*	:	Not part of NATA Accreditation
[NT]	:	Not tested	[N/A]	:	Not Applicable

Report Comments

Sampled by the client.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarised light microscopy.
This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

Analysis performed on the entire sample and dry basis.
No respirable fibres detected using trace analysis technique.
Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.
Samples analysed as received. Solid samples expressed on a dry weight basis.
Date Organics extraction commenced: 13/01/09
NATA Corporate Accreditation No. 2562, Site No 4354
Note: Test results are not corrected for recovery (excluding Dioxins/Furans*)

Quality Control Protocol

Method Blank: An analyte free matrix to which all reagents are added in the same volume or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. A method blank is prepared every 20 samples.
Duplicate: A separate portion of a sample being analysed that is treated the same as the other samples in the batch. One duplicate is processed at least every 10 samples.
Surrogate Spike: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are added to samples before extraction to monitor extraction efficiency and percent recovery in each sample.
Internal Standard: Added to all samples requiring analysis for organics (where relevant) or metals by ICP after the extraction/digestion process; the compounds/elements serve to give a standard of retention time and/or response, which is invariant from run-to-run with the instruments.
Laboratory Control Sample: A known matrix spiked with compound(s) representative of the target analytes. It is used to document laboratory performance. When the results of the matrix spike analysis indicates a potential problem due to the sample matrix itself, the LCS results are used to verify that the laboratory can perform the analysis in a clean matrix.
Matrix Spike: An aliquot of sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Quality Acceptance Criteria

The QC criteria are subject to internal review and can be provided on request.

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Fax Number : (+61 2) 8594 0499

SAMPLE RECEIPT CONFIRMATION

COMPANY	:	Coffey Geotechnics Pty Ltd	FAX NO.	:	02 6651 5194
ATTENTION	:	Andrew Ballard	PAGES	:	1
FROM	:	Sample Receipt	DATE	:	13/01/09

This is to confirm that samples for Project **GEOTCOFH02467AA** were received on **13/1/09** the results are expected to be ready on **20/01/2009** . Please quote SGS Reference: **66697** when making enquiries regarding this project. Please refer to below which details information about the integrity of the samples and other useful information.

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples, unless otherwise instructed.

Samples received in good order:	YES
Samples received in correct containers:	YES
Samples received without headspace:	YES
Sufficient quantity supplied:	YES
Upon receipt sample temperature:	Cool
Cooling Method:	Ice Pack
Sample containers provided by:	SGS
Samples Clearly Labelled:	YES
Turnaround time requested:	Standard
Completed documentation received:	YES

Comments:

Terms and conditions are available from www.au.sgs.com

The signed chain of custody will be returned to you with the original report.

coffey

Chain of Custody

No: 13394

Laboratory Quotation / Order No:

Job No: GEOTCOFH02467AA Sheet 1 of 1

Dispatch to: (Address & Phone No.) SGS 16/33 Maddox Street Alexandria NSW 2015	Sampled by: JP/ST	Consigning Officer: JP	Date Dispatched: 12/1/08
Attention:	Project Manager: Andrew Ballard (report results to) andrew_ballard@coffey.com	Courier Service: TNT	Consignment Note No:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
COFFEY GEOTECHNICS COFFS HARBOUR			David	13/1/09	

Comments	Sample Matrix	Container Type and Preservative	Sample No.		Date Sampled	PAHs	TPHs	MAHs - BTEX	Metals:	OCP/OPP	ASBESTOS	Sample Condition on Receipt
	SOIL	250ML GLASS JAR	QC6	1	7/1/09		✓		✓	✓		
	↓	ZIP LOCK BAG	B5	2	12/1/09						✓	
	↓	↓	C5	3	↓						✓	
	↓	↓	C10	4	↓						✓	
	↓	↓	D1	5	↓						✓	
	↓	↓	D7	6	↓						✓	
	↓	↓	E4	7	↓						✓	
	↓	↓	E8	8	↓						✓	
	↓	↓	E12	9	↓						✓	
	↓	↓	F1	10	↓						✓	
	↓	↓	F6	11	↓						✓	
	↓	↓	G4	12	↓						✓	
	↓	↓	G6	13	↓						✓	
	↓	↓	G8	14	↓						✓	
	↓	↓	G10	15	↓						✓	
	↓	↓	G12	16	↓						✓	

SGS
Received 13/1
By DG
Storage Location S416, Ash
SGS REF No. ~~66598~~ 66597

Special Laboratory Instructions: METALS 8: As, Cd, Cr, Cu, Pb, Ni, Zn, Hg

OCP - organochlorine pesticides
OPP - organophosphorus pesticides

Detection Limits: NORMAL

Turnaround Required: NORMAL

JOB NUMBER MUST BE REFERENCED ON ALL SUBSEQUENT PAGES

Copies: WHITE: Sign on release. YELLOW: If dispatched to interstate Lab, Lab to sign on receipt and fax back to Coffey. BLUE: To be returned with results.

64228-06

Appendix C

Data Validation Report

coffey geotechnics
SPECIALISTS MANAGING THE EARTH

QA/QC DATA VALIDATION REPORT

Job No: GEOTCOFH02467AA-AB

I. SAMPLE HANDLING

	Yes	No
1. Were the sample **holding times** met?	☒	☐
2. Were the samples in **proper custody** between the field and reaching the laboratory?	☒	☐
3. Were the samples **properly and adequately** preserved? *This includes keeping the samples chilled, where applicable.*	☒	☐
4. Were the samples received by the laboratory in good condition?	☒	☐

Sample Handling was:

☒ Satisfactory ☐ Unsatisfactory

☐ Partially Satisfactory

II PRECISION / ACCURACY ASSESSMENT

	Yes	No (Comment below)
1. Was a NATA registered laboratory used?	☒	☐
2. Did the laboratory perform the requested tests?	☒	☐
3. Were the laboratory methods adopted NATA endorsed?	☒	☐
4. Were the appropriate test procedures followed?	☒	☐
5. Were the reporting limits satisfactory?	☒	☐
6. Was the NATA Seal on the reports?	☒	☐
7. Were the reports signed by an authorised person?	☒	☐

Precision/Accuracy of the Laboratory Report	☒ Satisfactory	☐ Unsatisfactory
	☐ Partially Satisfactory	

III. FIELD QA/QC

1. Number of Samples Analysed Soil: 30

2. Number of Days of Sampling Soil: 2

3. Number and Type of QA/QC Samples Collected:

	SOIL	WATER
Field Duplicates	3	NA
Field Triplicates	1	NA
Trip Blanks	1	NA
Wash Blanks	NA	1
Other (Trip spike)	1	NA

4. Field Duplicates

	Yes	No
A. Were an Adequate Number of field duplicates collected?	☒	☐
B. Were RPDs within Control Limits?		
a. Organics (< 50 %)	☒	☐
b. Metals/Inorganics (< 50 %)	☒	☐

5. TRIP BLANKS

	Yes	No
A. Were an Adequate Number of trip blanks collected?	☒	☐
B. Were the Trip Blanks free of contaminants?	☒	☐

6. WASH BLANKS

	Yes	No
A. Were an adequate number of Wash Blanks collected?	☒	☐
B. Were the Wash Blanks free of contaminants?	☒	☐

Comments:

Inconsistent results were found between triplicate pair D5 / QC6 for copper and nickel. These inconsistent results were attributed to different LOR used by each laboratory.

All RPDs for soil samples were within the control limit of 50%. One wash blank sample, one trip spike and trip blank samples were also analysed. The results of these analyses were also within acceptable limits.

Field QA/QC was: ☒ Satisfactory ☐ Unsatisfactory ☐ Partially Satisfactory

IV LABORATORY INTERNAL QUALITY CONTROL PROCEDURES

1. Types and Number of QA/QC Samples

	SOIL	WATER
Method Blanks	4	
Matrix Spikes	6	1
Laboratory Duplicates	5	1
Surrogates	144	6

	Yes	No
2 Were the laboratory blanks/reagents blanks free of contamination?	☒	☐
3. Were the spike recoveries within laboratory control limits?		
a. Organics (60% to 130%)	☒	☐
b. Metals/Inorganic (70% to 130%)	☒	☐
4. Were the RPDs of the laboratory duplicates within control limits?	☒	☐
5. Were the surrogate recoveries within control limits?	☒	☐

The laboratory internal QA/QC was: ☒ Satisfactory ☐ Unsatisfactory ☐ Partially Satisfactory

V. DATA USABILITY

1.	Data Directly Usable	☒
2.	Data Usable with the following corrections/modifications	☐
3.	Data Not Usable.	☐

QA/QC Report Prepared by Joel Parkin