

**Stage 1 Preliminary  
Site Contamination Assessment  
Cobaki Lakes Concept Plan**

Prepared for  
LEDA Manorstead Pty Ltd

May, 2008

## Document control

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Synopsis: A Stage 1 Site Contamination Assessment was undertaken to identify activities that may potentially lead to site contamination. This report fulfils (in part) one of the Director Generals Requirements (DGR) for a SEPP 10 development for residential purposes at Cobaki.	

## Revision History

Revision #	Date	Edition By		Approved By	
1	03.04.08	P. Mathew	D. Smith	N. Zurig	L. Varcoe
2	13.05.08	N. Zurig		N. Zurig	L. Varcoe

## Distribution

Distribution	Revision Number									
	1	2	3	4	5	6	7	8	9	10
LEDA Manorstead Pty Ltd	5	1								
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## Summary

Gilbert & Sutherland Pty Ltd (G&S) was commissioned by LEDA Manorstead Pty Ltd (LEDA) to undertake specialist studies and assessments in support of a concept plan of development for the Cobaki Lakes site at Cobaki, New South Wales.

Lodgement of a concept plan for the proposed Cobaki Lakes Development was authorised by the New South Wales Minister for Planning on January 24, 2007. The Director General of the Department of Planning issued Environmental Assessment Requirements (DGRs) for the concept plan on March 5, 2007.

This report describes a Stage One Preliminary Investigation under State Environmental Planning Policy (SEPP) 55 for site contamination within the Cobaki Lakes development, Cobaki, NSW. The objectives of this assessment were:

- identify any potentially contaminating activities that may have been undertaken on the site following the initial site contamination assessment report and remediation action plan prepared in 1992 by Aargus Pty Ltd; and
- identify the need for any further contamination investigations.

To achieve these objectives the following tasks were undertaken:

- a review of land use based on aerial photography and desktop research
- a site inspection to identify potentially contaminating activities, geological, topographical and hydro-geological site features.

The investigation identified that activities undertaken on the site have the potential to lead to contamination that may affect the suitability of some parts of the land for redevelopment as residential land use. These activities include:

- an abandoned cattle dip that has been capped and has an approved (by Tweed Shire council) remediation action plan
- cattle yards, crush, spray race, sump and pumping station
- farm sheds used for miscellaneous machinery, grease, oil and fuel storage
- asbestos building products and lead-based paints associated with the construction and maintenance of an on-site residential dwelling
- site construction (quarry) office and compound area containing workshops, miscellaneous grease and oil storage, workers amenity hut and related infrastructure
- on-site effluent treatment systems associated with dwellings.

The extent and types of contaminating activities identified on site suggest that further investigation is warranted and that the resultant remediation plans would manage the contamination to make the site suitable for residential development. It is recommended that a Stage 2 (Detailed) Site Contamination Assessment would be required to allow the formulation of a remediation action plan(s) and implement appropriate management measures to ensure the site is rendered suitable for its intended purposes. The preliminary assessment indicates that areas requiring Stage 2 investigation are localised and the contamination that may be present on site poses no impediment to the development of the Cobaki Lakes concept plan.

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# 1) Introduction

## 1.1 Background

Gilbert & Sutherland Pty Ltd (G&S) was commissioned by Leda Manorstead Pty Ltd to undertake a Stage 1 preliminary site contamination assessment of the proposed Cobaki lakes development site situated at Cobaki, NSW. The Stage 1 assessment is consistent with State Environmental Planning Policy No. 55 Contaminated Lands.

Leda Manorstead Pty Ltd proposes to develop the site for predominately residential use. This stage 1 preliminary site contamination assessment will form part of the conceptual site design and development application undertaken by Leda Manorstead Pty Ltd and, therefore, outlines the potential for soil and water contamination as a result of activities historically and currently performed on-site.

## 1.2 Development concept

Appropriate zoning and other development controls for the entire site are outlined in *Tweed Shire Development Control Plan: Section B7 – Cobaki Lakes (DCP B7)*.

The Cobaki Lakes Concept Plan proposes the creation of a master planned residential community integrating residential development and supporting commercial, retail, recreational and educational facilities. Large areas of open space will be provided for environmental enhancement and for recreational purposes.

The development concept is shown on Drawing No. GJ0640.1.0.

## 1.3 The site

The location of the site is shown on Drawing No.GJ0640.1.1.

The proposed development site is properly described as part of Lots 228 & 305 DP755740, part of Lot 1 in DP56222 and part of Lot 1 in DP570077. All lots are in the Parish of Terranora, County of Rous.

The site covers approximately 596 hectares and is located immediately south of the Queensland/NSW border and approximately 2km west of the coastal township of Kirra.

## 1.4 Assessment objectives

The objectives of this assessment were:

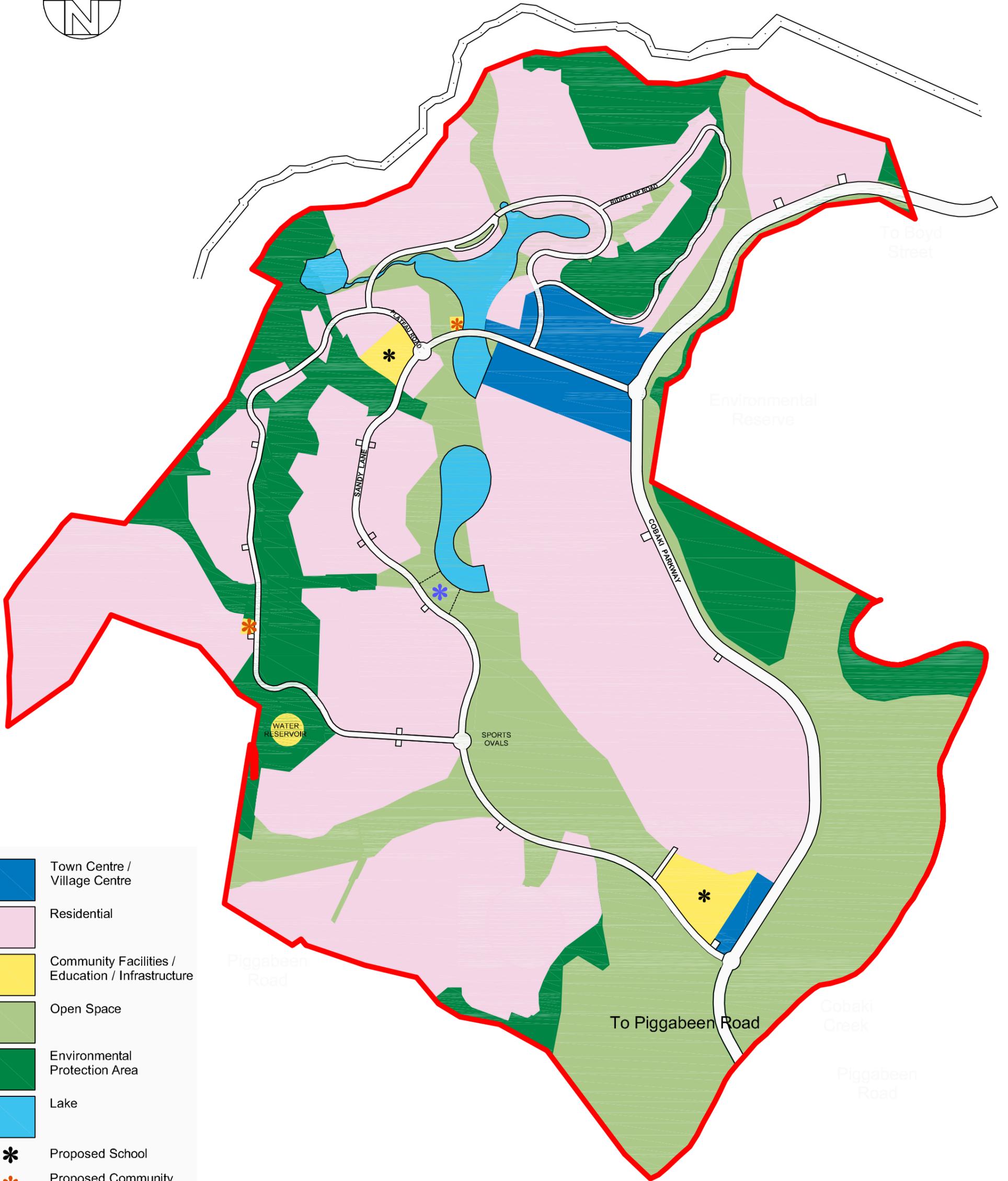
- to determine the nature and extent of potentially contaminating activities undertaken on-site; and
- to assess the need for further, more detailed site contamination investigations.

## 1.5 Scope of works

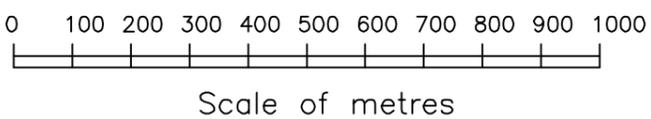
The following scope of works was undertaken by Gilbert & Sutherland:

- a review of historical land use based on aerial photography and desktop research;
- a site inspection to identify potentially contaminating activities, geological, topographical and hydro-geological site features; and
- the preparation of a report detailing potentially contaminating site activities and recommendations for further investigatory work.

# Concept Plan



- Town Centre / Village Centre
- Residential
- Community Facilities / Education / Infrastructure
- Open Space
- Environmental Protection Area
- Lake
- ✱ Proposed School
- ✱ Proposed Community Facilities
- ✱ Proposed Restaurant



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<p>FIGURED DIMENSIONS TO BE READ IN PREFERENCE TO SCALING.</p>	<p>APPROVED</p>	<p>SCALE AS SHOWN DATE 22-08-08</p>	<p>DRAWN J.J.T. CHECKED</p>
		<p>DRAWING No. GJ0640.1.0</p>	



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	<p>SCALE AS SHOWN</p>	<p>DRAWN C.T.H.</p>
<p>FIGURED DIMENSIONS TO BE READ IN PREFERENCE TO SCALING.</p>	<p>APPROVED</p>	<p>DATE 16/04/08</p>
	<p>CHECKED</p>	<p>DRAWING No. <b>GJ0640.1.1</b></p>



## 2) Methodology

This assessment was completed by Gilbert & Sutherland in accordance with the following guidelines:

- NSW EPA Guidelines for Consultants Reporting on Contaminated Sites 1997,
- NSW Agriculture - Guidelines for the Assessment and Cleanup of Cattle Tick Dip Sites for Residential Purposes February 1996,
- NSW EPA Contaminated Sites: Draft Guidelines for the NSW Site Auditor Scheme,
- New South Wales Environmental Protection Authority - Managing Land Contamination - Planning Guidelines SEPP 55 - Remediation of land.
- National Environment Protection Council - National Environment Protection (Assessment of Site Contamination) Measure 1999.

The site assessment was divided into three major stages:

1. A site inspection;
2. Review of historical aerial photographs (1962, 1971, 1979, 1987, 1997, 2007); and
3. Review of NSW Government records.

### 2.1 Site inspection

A site inspection was undertaken by qualified Gilbert & Sutherland staff on July 16, 2007. A four wheel drive vehicle was used to observe the majority of the site and where this was not possible further investigations were performed on foot.

The intent of the site inspection was to identify evidence of activities likely to result in land contamination as listed in Table 1 of the Planning Guidelines SEPP 55 - Remediation of land. The inspection also noted site features including topography, slope and hydrologic features.

### 2.2 Site history

A review of the site history was undertaken to identify previous site uses that may have resulted in land and/or water body contamination.

The site history review included the following:

- a review of available historical aerial photography provided by the New South Wales Department of Lands (Aug, 1962, August 12, 1971,
- March 28, 1979, July 31, 1987, May 26, 1997, June 25, 2004);
- a search of state government licences and registers for activities undertaken onsite; and
- a review of the Aargus Pty Ltd 'Turners Creek Dip Site' remediation action plan (RAP) of 2003<sup>1</sup> and the previous investigation reports upon which the RAP is based.

### 2.3 Soil and landscape classification

The landscape is described by the publication *Soil Landscapes of the Murwillumbah-Tweed Heads*<sup>2</sup>. Further description of the site was based on field observation undertaken during the site inspection.

### 2.4 Assessment criteria

Potential contamination issues were identified using the following set of guiding criteria:

- Visual identification of potentially contaminating activities (e.g. cattle yards, fuel storage tanks, chemical storage sheds/areas, waste piles, rubbish dumps etc.);
- Visual identification of the remains of a potentially contaminating activity such as old/empty pesticide drums, chemical application equipment or disused/overgrown stock treatment areas (dips, spray races, ear tags, back rubbers);
- Evidence of contamination (e.g. fuel/oil stained soils, vapours/odours etc.); and
- Evidence of activities undertaken on the site and matching them with historical practices that were commonly used (e.g. termite treatments for soil exposed timbers).

<sup>1</sup> Aargus Pty Ltd June 2003, *Remediation Action Plan – Turners Creek Dip Site (Sandy Lane) Cobaki Lakes, NSW*. Prepared for Leda Developments.

<sup>2</sup> Morand, D.T. 1996, *Soil Landscapes of the Murwillumbah-Tweed Heads 1:100 000 Sheet Report*, Department of Land and Water Conservation, Sydney.

### 3) Site description

#### 3.1 Location

The site is properly described as part of Lots 228 and 305 DP755740, part of Lot 1 DP56222 and part of Lot 1 DP570077. All lots are in the Parish of Terranora, County of Rous. The site covers approximately 596 hectares and is located immediately south of the Queensland/NSW border and approximately 2km west of the coastal township of Kirra.

#### 3.2 Topography and drainage

The land ranges in elevation from approximately RL 0.0m Australian Height Datum (AHD) to approximately RL 100m AHD. The site generally slopes in a south-easterly direction towards Cobaki Creek.

The central portion of the site is occupied by seasonally waterlogged areas (northerly section), fresh water swamp (central section) and salt water swamp (southern extremity). Site water courses are well defined and the central waterlogged areas contain large agricultural drains.

The site is generally flat, with slopes ranging from level (0-1%) to moderately inclined (10-20%). The steepest slopes are associated with the western and northern sections of the site facing Cobaki Creek and Broadwater. The site topography and slope is shown on Drawing No. GJ0640.1.2.

Land situated to the east of the site is generally low lying with elevations ranging from RL 0.0m AHD to approximately RL 10m AHD. Slopes vary from level to gently inclined (3-10%). The ridge bordering the site from the north around to the west varies in elevation from RL 10m AHD to RL 100m AHD and mainly consists of moderately inclined (10-20%) slopes.

#### 3.3 Geology and soils

A review of the Soil Landscapes of the Murwillumbah-Tweed Heads 1:100 000 Sheet Map<sup>3</sup> indicates that the majority of the site is underlain by Quaternary

estuarine alluvium formations consisting of Holocene and Pleistocene in-fill materials. Clay, silt, sand and gravel occur, but organic materials dominate the site surface.

The north and north-western edge of the site and an area in the south-west, overlays the Devonian Neranleigh-Fernvale Beds which are characterised by the presence of mudstone, shale, greywacke, chert, jasper and acid to basic meta-volcanics.

#### 3.4 Vegetation

The majority of the site is an extensively cleared closed-swamp complex with areas of grass, sedge and rushland.

Some open Eucalyptus forest is concentrated around sections of the south-western edge and northern ridge.

A scattering of scribbly gum (*Eucalyptus racemosa*) was observed around the natural low sand ridge in the middle and lower eastern part of the site.

Parts of the site are zoned environmental protection. The environmental protection zones include small areas of open, wet sclerophyll forest in the north, east and north-west (zoned as essential habitat) and an area along the western site boundary (zoned as scenic/escarpment, and mainly consisting of open Eucalypt forest).

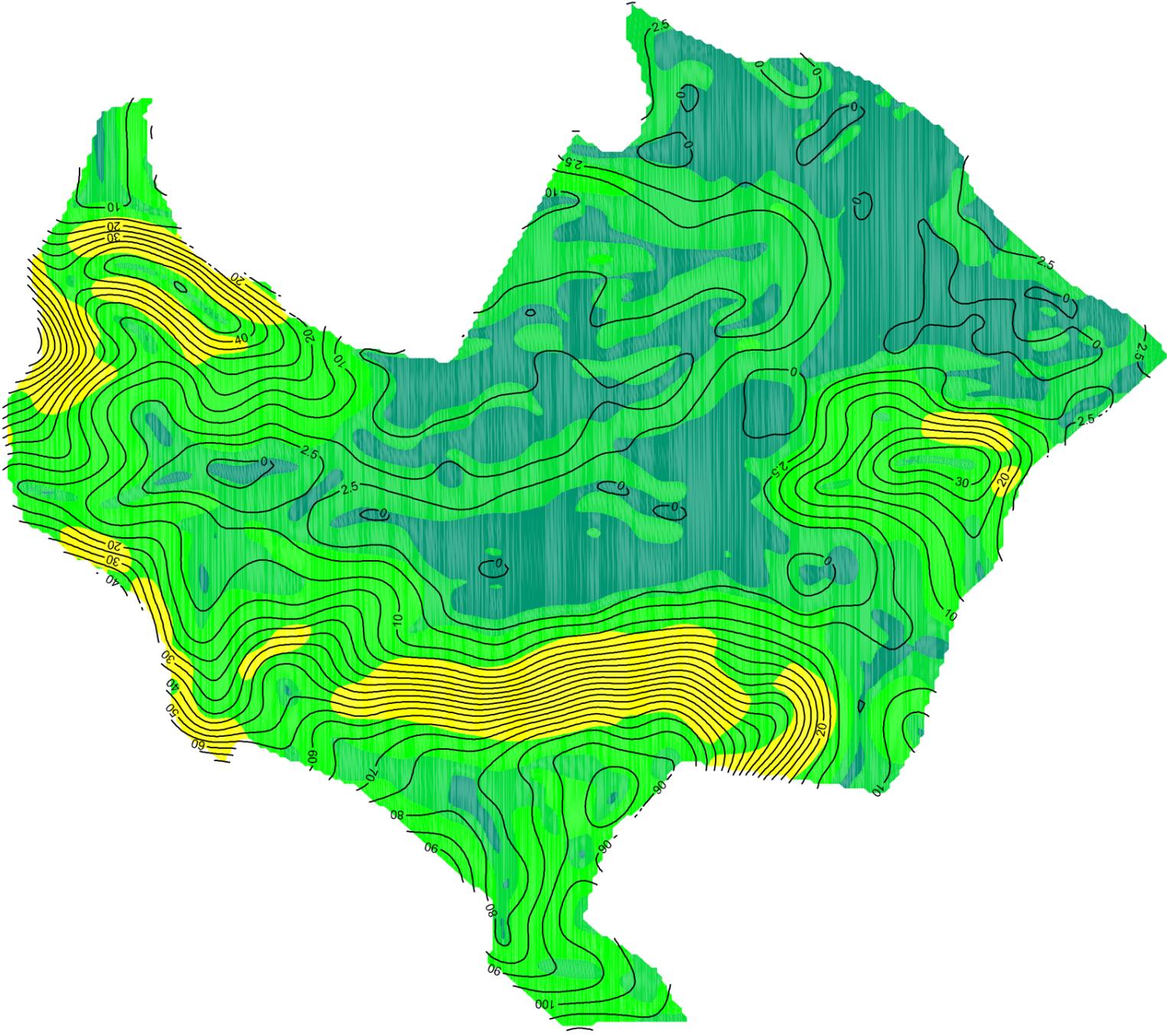
Land surrounding the site on the eastern border is mainly vegetated by reedy swamp. Areas of open Eucalypt forest stretch from the north around to the west of the site. Land surrounding the southern portion of the site has been extensively cleared and remaining vegetation consists of native pasture and scattered Eucalypts.

#### 3.5 Tweed shire land zones

The different land zones<sup>4</sup> for the site and surrounding land are shown on Drawing No. GJ0640.1.3. The site contains areas zoned as 'urban expansion', 'open space' and 'environmental protection'.

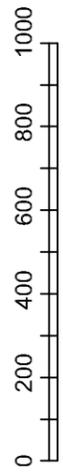
<sup>3</sup> Morand, D.T. 1996, *Soil Landscapes of the Murwillumbah-Tweed Heads 1:100 000 Sheet Map*, Department of Land and Water Conservation, Sydney.

<sup>4</sup> Tweed Shire Council 2007, *Tweed Local Environmental Plan 2000*.



**LEGEND**

-  0% - 1%  
(LEVEL)
-  1% - 3%  
(VERY GENTLY INCLINED)
-  3% - 10%  
(GENTLY INCLINED)
-  10% - 20%  
(MODERATELY INCLINED)
-  20% - 32%  
(MODERATELY STEEP)
-  32% - 56%  
(STEEP)



SCALE OF METRES

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TO SCALING.

APPROVED

PROJECT  
LEDA MANORSTEAD PTY LTD  
COBAKI LAKES  
STAGE 1 CONTAMINATION ASSESSMENT  
SITE TOPOGRAPHY AND SLOPE ANALYSIS

SCALE AS SHOWN

DRAWN C.T.H.

CHECKED

DATE 16/04/08

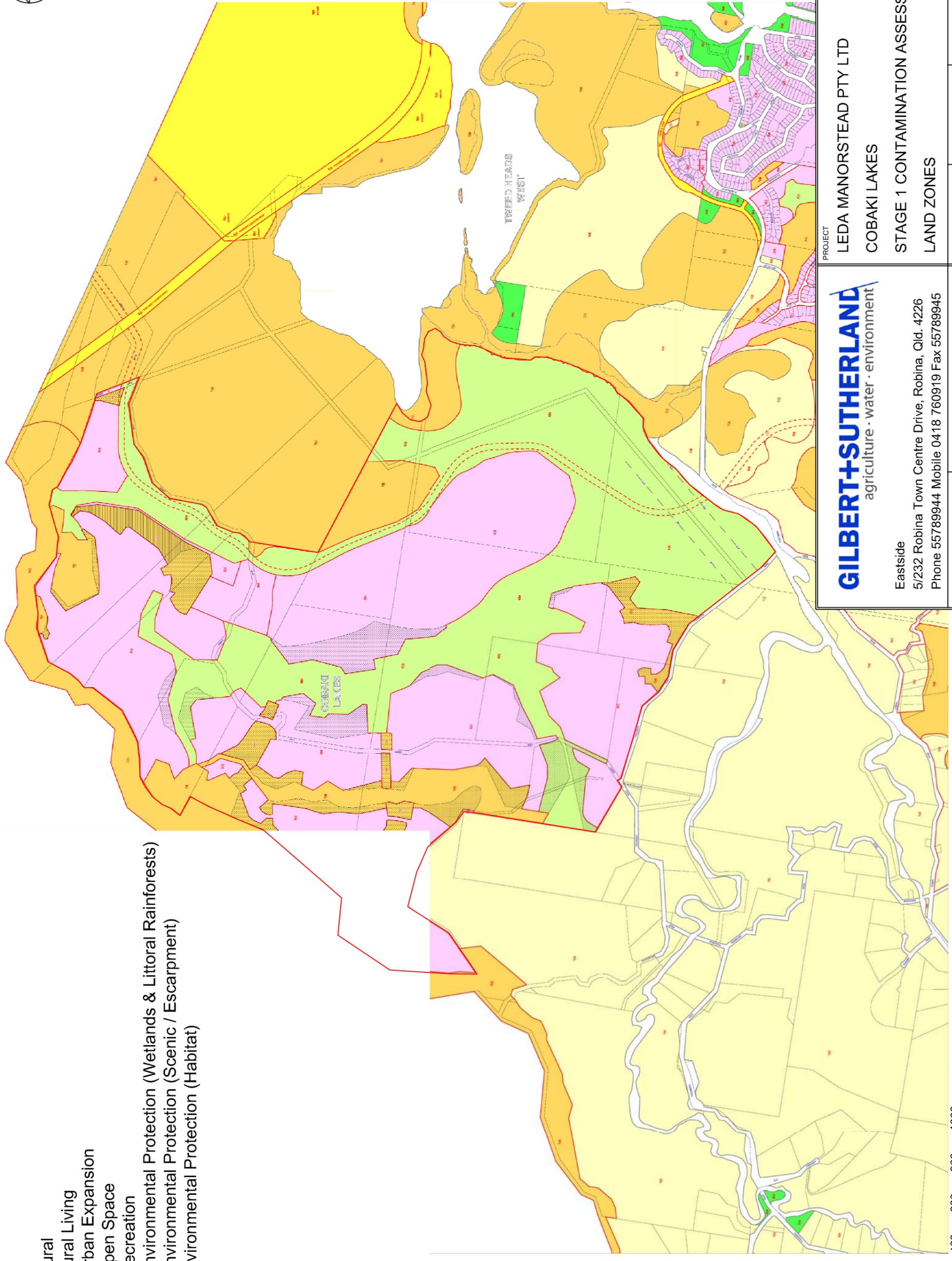
DRAWING No.

GJ0640.1.2



Legend

- 1 (a) - Rural
- 1 (c) - Rural Living
- 2 (c) - Urban Expansion
- 6 (a) - Open Space
- 6 (b) - Recreation
- 7 (a) - Environmental Protection (Wetlands & Littoral Rainforests)
- 7 (d) - Environmental Protection (Scenic / Escarpment)
- 7 (l) - Environmental Protection (Habitat)



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 LEDA MANORSTEAD PTY LTD  
 COBAKI LAKES  
 STAGE 1 CONTAMINATION ASSESSMENT  
 LAND ZONES

SCALE AS SHOWN	DRAWN C.T.H.	DRAWING No.
DATE 16/04/08	CHECKED	GJ0640.1.3

APPROVED

FIGURED DIMENSIONS TO BE READ IN PREFERENCE TO SCALING.

## 4) Site history

### 4.1 Previous assessments

As part of their February 1990 geotechnical investigation<sup>5</sup>, Golder Associates commissioned a radiation assessment of areas where it was believed that mineral sand extraction had been undertaken historically. O'Leary and Fleming<sup>6</sup> undertook the assessment in January 1990 and concluded that there was no evidence of elevated levels of radiation which may have been associated with sand mining or mineral sand processing.

A cattle dip ('Turner's Dip') is present in the northern part of the site (extract of NSW DPI Cattle dip locator is provided in Appendix 1). This dip has been the subject of several prior investigations including:

- A Preliminary Site Assessment of Turners Dip<sup>7</sup>, prepared by Golder Associates for Calsonic International in December 1991.
- Additional investigation of Turners Dip conducted by the NSW Department of Agriculture<sup>8</sup> in February 1992.
- A Draft Remediation Plan<sup>9</sup>, prepared by CMPS&F for the Ray Group in December 1994.
- A Clean-up Plan<sup>10</sup>, prepared by CMPS&F for the NSW Department of Agriculture and Fisheries, in March 1995.
- A Remediation Action Plan prepared by Aargus for Leda Developments in July 2003.

From the investigations undertaken, contamination associated with the dip was identified as follows:

<sup>5</sup> Golder Associates. February 1990. *Cobaki Community Development – Geotechnical Investigation*. Prepared for Calsonic International.

<sup>6</sup> O'Leary, BM. and Fleming, RA. 1990. *Report on Gamma Radiation Survey of Site at Cobaki, Tweed Heads, NSW on 5<sup>th</sup> January 1990*. Prepared for Golder Associates.

<sup>7</sup> Golder Associates. December 1991. *Interim Report Number 1 on Preliminary Site Assessment-Turners Dip-Cobaki Lakes Project, Cobaki, New South Wales*. Prepared for Calsonic International.

<sup>8</sup> NSW Department of Agriculture. April 2, 1992. Unpublished Correspondence re Extent of Contamination at Turners Dip Site.

<sup>9</sup> CMPS&F. January 1995. Draft Management Plan – Turners Dip. Prepared for the Ray Group.

<sup>10</sup> CMPS&F. March 1995. Clean-up Plan – Turners Dip. Prepared for NSW Agriculture.

From 25 samples collected by Golder Associates, arsenic was identified at a maximum concentration of 495mg/kg. From the 20 samples analysed discretely, 7 exceeded the HIL-E<sup>11</sup> of 200mg/kg. One three-part composite contained levels of DDT+DDE+DDD of 45mg/kg.

From 11 samples collected by the NSW Department of Agriculture, Arsenic was identified at concentrations up to 2000mg/kg with concentrations exceeding the HIL-E in 6 locations. DDT+DDE+DDD was identified at concentrations up to 2200mg/kg with concentrations exceeding the HIL-E of 400mg/kg in 2 locations.

The remediation action plan (RAP) for the dip site, prepared by Aargus (2003), was approved by Tweed Shire Council. Gilbert & Sutherland considers that the extent of contamination associated with the dip has been adequately identified and that management in accordance with the approved RAP will render this portion of the site suitable for the intended use.

### 4.2 History summary

The general indicators suggest that the subject site has not sustained any significant area of cropping and that it has generally been used for the grazing of beef cattle.

The site is currently being selectively quarried for road base construction materials (blue metal) and an area adjacent to the western boundary has been filled. The balance of the site continues to be used for the grazing of cattle.

The current cattle grazing regime includes the treatment of ectoparasites using Amatrax delivered via a fixed location spray race located adjacent to the yards in the south western corner of the site. Observations during the on-site inspection indicate the current use of Cydectin (Moxidectin) for the control of ectoparasites and endoparasites.

<sup>11</sup> Health Investigation Level – E – Parks, recreational open space and playing fields. From the *National Environment Protection Measure 1999 – Schedule B1. Guideline for the Investigation Levels for Soil and Groundwater*.

Site aerial photography dating back to 1962 was used to determine the historical development and use of the site. The changes since 1962 are summarised in Table 4.1. The table outlines the site's grazing history and periods of limited filling in the central eastern portion adjacent to Cobaki Broadwater. Some limited clearing was undertaken between 1962 and 1997, with more extensive clearing performed since (2004 to present).

### 4.3 Contamination potential

#### 4.3.1 General overview

Given the site history, the contamination potential (excluding the 'Turners Dip' site) would be limited to chemical and fuel storages, old drum or chemical disposal sites and the spray race where insecticides are applied. A comprehensive site inspection was undertaken on July 16, 2007. A summary of the possible contaminants associated with each area of the site, based on the July 16, 2007 inspection and aerial photograph interpretation, is provided in Table 4.2.

Activities identified as having the potential to contaminate include:

- cattle dip and spray race areas
- cattle yards area
- site management offices
- workshops
- machinery, fuel and chemical storage(s)
- existing dwelling(s).

Areas where the above activities have occurred are indicated in Drawing No. GJ0640.1.4.

#### 4.3.2 Cattle spray race and yards area

The spray race structure includes underground water storage, a PTO driven pressure pump, a sump (Plate 1) to reticulate liquids applied in the race (Plate 2 and 3) and a 'drip pad' area (Plate 4) to allow excess spray moisture to drain before cattle are returned to the paddock.



**Plate 1:** Spray race pump, sump and underground water supply/mix tank.



**Plate 2:** Spray race structure and PTO driven pressure pump.



**Plate 3:** Internal view of spray race structure.



**Plate 4:** Exit of spray race onto 'drip pad'.

All of the identified spray race system components have the potential to contribute to site contamination and would need to be dutifully assessed as part of a more thorough site investigation.

The yards are of steel construction and are attached to the spray race area. The yards contain several yards and a loading race (Plate 5). The total area of the yards is approximately 0.3 ha.



**Plate 5:** Cattle yards and crush. Loading ramp to right of frame.

The chemical register for the spray race is incomplete, however, spent containers for AMITIK (Plate 6) and Cydectin (Plate 7) were found on site (MSDS attached in Appendix 2).

Products registered for use in cattle parasite control are listed in the Australian Pesticides and Veterinary Medicines Authority (APVMA) PUBCRIS database. A list of the approved chemicals is attached in Appendix 3.



**Plate 6:** 5L drums of 'Amitik EC' added to mixing tank for use in spray race.



**Plate 7:** 20L 'Cydectin pour-on treatment for cattle tick and worms' drum found adjacent to spray race pump.

The majority of insecticide formulations are short lived compounds; however, others such as organophosphate compounds (OP) can be more environmentally persistent. Due to the incomplete chemical register for the race, it is prudent to assume that organophosphate (OP) and carbamate formulations may have been used at the spray race site during the early operational phase of the facility.

#### 4.3.3 Site management offices and workshops

Current quarry operations are based around a site office in the vicinity of the 'Turners Dip' site. Potentially contaminating activities may be associated with the servicing, maintenance and refuelling of earthmoving and haulage machinery used to extract and remove quarry materials.

The on-site disposal of effluent associated with the quarry site office would need to be further investigated to minimise human health risks.

#### 4.3.4 Machinery, fuel and chemical storage

Adjacent to the yards on site was an old timber and galvanised iron storage shed (Plate 8) and a newer zinalume and steel structure.



**Plate 8:** Small shed adjacent to house.



**Plate 9:** Rear view of second storage shed.

Areas were identified on-site which have been used for the storage of fuels and oils in drums (eg. Plate 10).

Although no bulk fuel storage facilities were observed on site in and near the farm buildings complex, it is expected that there may have been some fuel storage on site in the past as part of the normal practice for farms in the area.



**Plate 10:** Oil drum next to storage shed.

Fuels used in farming practice are usually limited to diesel and unleaded/leaded petroleum, however, products such as kerosene and heavy fuel oils may have been used in the past.

It is also likely that servicing and maintenance of farm equipment was undertaken at locations such as the storage sheds shown in Plate 8 and Plate 9. Such areas may be expected to be contaminated with accumulations of used lubricants (oils and greases) and their containers. In addition, many of the hydraulic fluids used in the past contained Polychlorinated biphenyls (PCBs).

The long and short term storage or shedding of farm machinery may also lead to the accumulation of lubricants on shed floors as a result of slow leaks or damage. This is especially relevant where shed floors are earthen or washed/rinsed regularly without collecting runoff.

#### 4.3.5 Existing dwellings

Some of the dwellings and sheds have been on site since the 1960's. Given the estimated age of the dwellings remaining on site, consideration must be given to the possible presence of asbestos based building materials (Plate 11) and lead-based glass and paint<sup>12</sup> (Plate 12).

<sup>12</sup> Lead-based house paints indicate care should be taken to avoid contact and inhalation during removal and disposal.



**Plate 11:** View to rear of on-site house showing fibro sheeting used as external cladding.



**Plate 12:** View to front of on-site house showing painted wood with significant flaking of paint.

In addition, the majority of the roofing and insulation material available at the time of the dwelling's construction would have been in some way reliant on the use of asbestos.<sup>13</sup>

An inspection of areas surrounding existing and removed dwellings should be undertaken to locate and assess facilities used for the on-site treatment and disposal of household wastewater (sewage) as human exposure to such areas may result in unacceptable health risks.

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<sup>13</sup> Roof cladding and the materials found within the roof and wall cavities should be treated with the utmost care to ensure this material does not escape and its fibres are not inhaled during demolition.

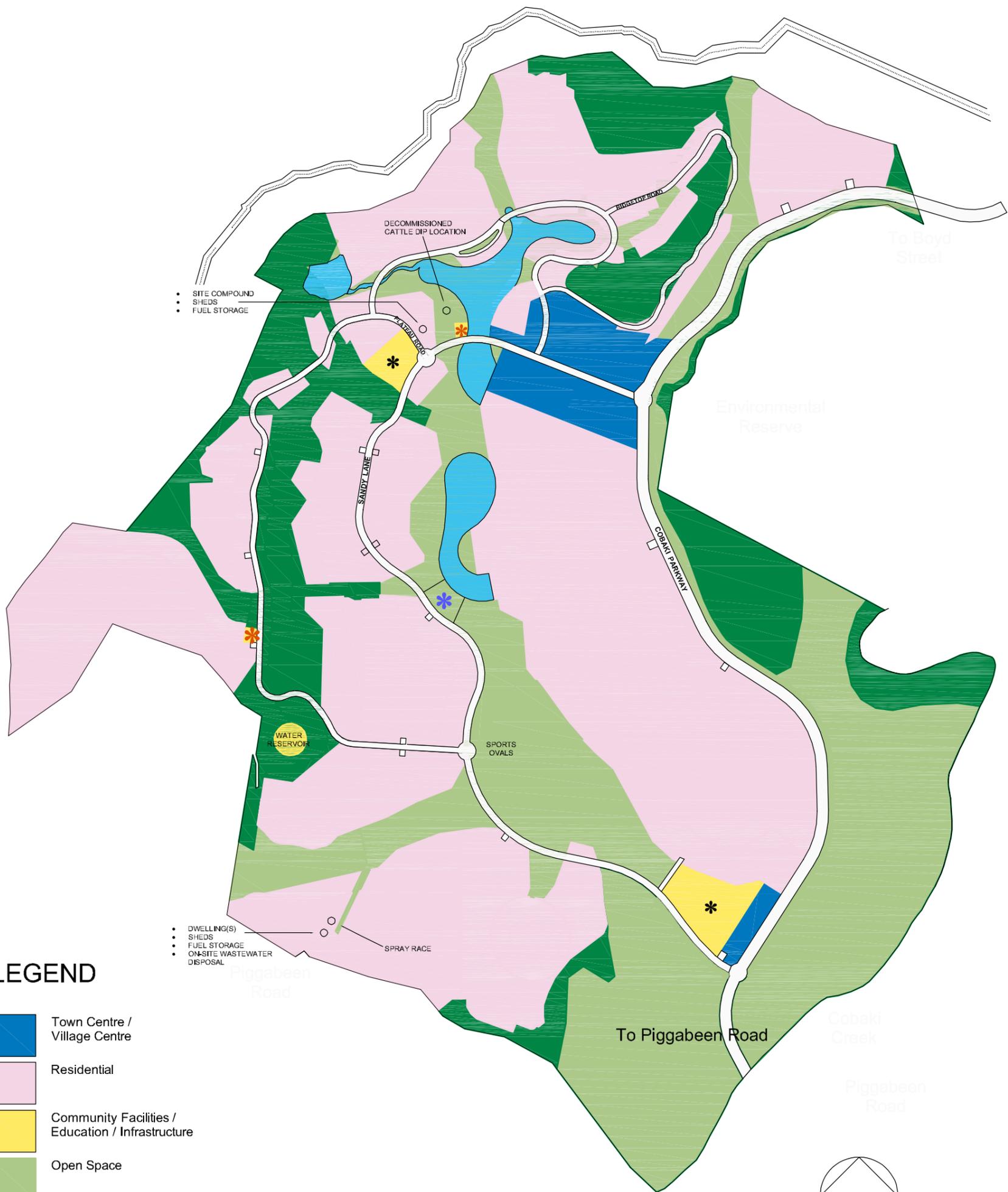
Table 4.1 – Summary of site history 1916 – 2007

Year	Clearing	Earth moving/roads	Housing/building	Filling	Dip/spray races
1916					'Turner's Dip' site first used by NSW government.
1931					Arsenic first used in 'Turner's Dip'
1962	Northern and western portion of site is cleared Small areas (1-2 ha) of cultivation dispersed through site (4 in total)		Buildings in north eastern corner, adjacent to Turner's Dip, and in south western corner	N/A	'Turner's Dip' present
1971	Clearing in south-east of site adjacent to Piggabeen Rd., in the central east adjacent to the central drainage line and in small areas in the north. Cultivation in cleared areas (most probably for pasture improvement).	Small dam constructed to the west of the 'Turner's Dip' site.	Buildings in north eastern corner, adjacent to Turner's Dip, and in south western corner		DDT, Dioxathion and Ethion were used at the 'Turners Dip' site.
1979	Re-growth of vegetation over the southern site portion and other areas in cleared in 1971 photograph Areas cultivated are abandoned to pasture growth.		Buildings in north eastern corner, adjacent to Turner's Dip, and in south western corner		Ethion Chlordimeform and Amitraz were used at the 'Turners Dip' site.
1987	Extensive clearing of areas in site centre and in south-east quadrant. Thinner vegetation apparent in north-east corner.	New roads evident in fill area. Agricultural drains constructed throughout site.	Buildings in north eastern corner, and in south western corner. Building adjacent to Turner's Dip removed.		
1997		Position of current site office visible.	House/shed in north-east still visible. New houses to north of site boundary.		'Turners Dip' site capped/decommissioned and license expired (31/07/1989).

Year	Clearing	Earth moving/roads	Housing/building	Filling	Dip/spray races
2004/present	Lower slopes in site's west cleared for house lots. Timber piles visible on aerial photography.	Quarry operations visible in south and north-east of site. Stockpiles of quarry material visible and quarry site office located near old 'Turners Dip' site. Site roads upgraded for quarry traffic to access site from north.	Residence/shed in north-east removed.	Cut/fill undertaken for housing lots north of Piggabeen Rd. and west of Sandy Lane.	Spray race in operation at site located adjacent to sheds in south of site.

Table 4.2 Indicative list of possible contamination on-site at each location.

Location	BTEX	PAH	TPH	OC's	OP's	Arsenic	Lead	Other metals	Asbestos	Domestic effluent
Dip Race				X	X	X		X		
Spray Race				X	X					
Farm sheds	X	X	X	X	X	X	X	X	X	X
Fuel/oil storage	X	X	X				X	X		
Chemical storage	X	X	X	X	X			X		
Quarry office										X
Quarry yards	X	X	X							
Fill areas				X	X	X	X	X	X	
Current and removed house and or shed sites	X	X	X	X	X	X	X	X	X	X

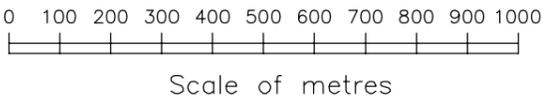


**LEGEND**

-  Town Centre / Village Centre
-  Residential
-  Community Facilities / Education / Infrastructure
-  Open Space
-  Environmental Protection Area
-  Lake
-  Proposed School
-  Proposed Community Facilities
-  Proposed Restaurant

• SITE COMPOUND  
• SHEDS  
• FUEL STORAGE

• DWELLING(S)  
• SHEDS  
• FUEL STORAGE  
• ON-SITE WASTEWATER DISPOSAL



Base Plan supplied by LEDA Manorstead Pty Ltd

**GILBERT+SUTHERLAND**  
agriculture · water · environment

Eastside  
5/232 Robina Town Centre Drive, Robina, Qld. 4230  
Phone 55789944 Mobile 0418 760919 Fax 55789945

FIGURED DIMENSIONS TO BE READ IN PREFERENCE TO SCALING.

APPROVED

PROJECT

LEDA MANORSTEAD PTY LTD

COBAKI LAKES

AREAS OF POTENTIALLY CONTAMINATING ACTIVITY

SCALE AS SHOWN

DRAWN A.J.F.

DRAWING No.

DATE 25/08/08

CHECKED

GJ0640.1.4

## 5) Conclusion

This Stage 1 Site Contamination Assessment has identified activities undertaken on the site that have the potential to impact on the suitability of the proposed residential land use. These activities include:

- cattle dip
- cattle spray race
- machinery and fuel storage(s)
- chemical storage(s)
- cattle yards
- on-site disposal of effluent
- filling of land (if uncontrolled filling has occurred).

In addition to these activities, the use of asbestos building products and lead-based paints in the construction and maintenance of on-site residential dwellings also requires further investigation.

As a general statement, it was common agricultural practice in the past to use organo-chlorine based pesticides extensively to treat the soil around any wood that may come in ground contact (for termite control). This treatment would include fence posts in yards, electricity supply poles, house stumps, under concrete slabs, pump houses and sheds.

The potentially contaminating activities identified by this Stage 1 (Preliminary) Site

Contamination Assessment indicate that a Stage 2 (Detailed) Site Contamination Assessment is required to confirm the suitability of specific areas of the site for residential development.

Gilbert & Sutherland is satisfied that the extent of contamination associated with the cattle dip has been adequately identified and that management in accordance with the approved RAP will render this portion of the site suitable for the intended use.

Gilbert & Sutherland is also satisfied that the areas outside the identified potentially contaminated areas, are unlikely to be contaminated and therefore do not pose a constraint to the development of the site for residential and ancillary purposes.

Although this preliminary assessment has identified potentially contaminating activities, these are confined to relatively small portions of the site. Based on our experience, it is likely that any contamination identified during stage 2 investigations will be manageable and it will be possible to remediate the site to facilitate development in accordance with the concept plan.

## 6) Limitations of reporting

Gilbert & Sutherland Pty Ltd has attempted to be accurate providing this information. The interpretation of scientific data, however, involves professional judgement. As such, interpretation is open to error.

In recognising the potential for errors in scientific interpretation, Gilbert & Sutherland Pty Ltd does not guarantee that the information is totally accurate or complete and clients are advised not to rely solely on this information when making commercial decisions. Any representation, statement, opinion or advice, expressed or implied is made in good faith and on the basis that the authors, Gilbert & Sutherland

Pty Ltd, their agents or employees are not liable (whether by reason of lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement or advice referred to above.

Furthermore, this information should not be relied upon by any other persons than the client for whom this information was compiled. This information reflects the specific brief and the budget of the client concerned, who enjoys an individual tolerance of risk.



## 7) Appendix 1 - NSW DPI Cattle Dip Site Locator Print Out





[Home](#) » [Animals](#) » [Health, disease and pests](#) » [Cattle health and disease](#) » [Cattle tick](#) » [Cattle dip site locator](#) »

## Cattle dip site locator

### Dip site location

<b>Dipname</b>	TURNERS	<i>Note: Map references are for 25,000 series topographic and co-ordinates are in AGD66 AMG zone 56.</i>
<b>Road</b>	OLD PIGGABEEN ROAD	<b>Mapsheet</b> 9541-I-S
<b>Town/Locality</b>	PIGGABEEN	<b>Easting</b> 54647
<b>Shire Council</b>	TWEED	<b>Northing</b> 88408
<b>Parish</b>	TERRANORA	<b>County</b> ROUS

### Dip site status

**IMPORTANT NOTE:** Cattle dip site information provided by NSW DPI is based on our own hard copy files representing currently known data. NSW DPI is not a public consent authority for the development of land containing cattle dip sites. It is possible that the physical conditions of a cattle dip site - including soil, structures, access and usage - may have been changed due to extreme natural events or landowner and developer actions that NSW DPI cannot be aware of. For more specific and accurate status information a physical inspection should be made and enquiries should always be directed to the appropriate Shire Council.

<b>Dip Status</b>	DECOMMISSION	<b>Licence/Lease Status</b>	LAPSED
<b>Land type</b>	LEASE	<b>Licence/Lease Expiry Date</b>	31/07/1989

[Explanation of status terms](#)

### Chemical Details

**IMPORTANT NOTE:** Chemical history has been retrieved from a copied laboratory log. In some cases it may be confirmed by entries in the hard copy lease folder but generally the chemical record is based on this single lab document. It is possible that there are inaccuracies as well as errors made.

Chemicals used in dip bath	Date first used

ARSENIC	6/31
DDT	4/55
DIOXATHION	10/62
ETHION	3/66
ETHION CHLORDIMEFORM	1/73
AMITRAZ	1/77

### Current Details

<b>Current Chemical</b>	NONE
<b>Dip bath status/contents</b>	CAPPED

[New search](#) | [Back](#)

The information contained in this web page is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of NSW Department of Primary Industries or the user's independent adviser.

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## 8) Appendix 2 – Relevant MSDS





# Material Safety Data Sheet

Page: 1 of 4

Issue Date: August 2006

Product Name: **AMITIK EC / AMIDAZ - PART A****Not Classified as Hazardous according to criteria of Worksafe Australia**

## COMPANY DETAILS

**Company Name** SCHERING-PLOUGH ANIMAL HEALTH LIMITED  
**Address** 11 GIBBON ROAD, BAULKHAM HILLS NSW 2153  
**Emergency Telephone** 1800 226 511 (24 HR)  
**Tel/Fax** Ph: (02) 9852 7200 Fax: (02) 9852 7285  
**Other Information** This MSDS has been transcribed into Worksafe Australia format from an original issued by the manufacturer on the date shown above.

## IDENTIFICATION

**Product Name** AMITIK EC / AMIDAZ -PART A

**Shipping Name (CSN)** Not considered a dangerous good by Manufacturer and no UN number issued.

**Other Names**

<u>Name</u>	<u>Mancode</u>
Amitik EC	
12.5% Amitraz	
Amidaz Part A	003

**UN Number** Not Regulated  
**DG Class** Not Regulated  
**Sub. Risk** Not Regulated  
**Packing Group** Not Regulated  
**Hazchem Code** Not Regulated  
**Poisons Schedule** S6

**Product Use** For the control of ticks on cattle, sheep, goats and deer, and mange on pigs by spraying.

## Physical Data

**Appearance** A clear, pale yellow liquid with a characteristic odour.  
**Boiling Point** Not available  
**Vapour Pressure** Not available  
**Specific Gravity** 0.952 at 15°C  
**Flash Point** Combustible  
**Flamm. Limit LEL** Not known

## Other Properties

**Form** Liquid  
**Other Information** Solubility in water (g/L): Miscible



# Material Safety Data Sheet

Product Name: **AMITIK EC / AMIDAZ - PART A****Not Classified as Hazardous according to criteria of Worksafe Australia**

## Ingredients

Ingredients	Name	CAS	Proportion
	Aromatic Hydrocarbon		0-100.00%
	Amitraz	33089-61-1	12.50%

## HEALTH HAZARD INFORMATION

### Health Effects

<b>Acute - Ingestion</b>	Toxic if Swallowed. Ingestion can result in nausea, vomiting, and abdominal pain.
<b>Acute - Eye</b>	A moderate to severe eye irritant.
<b>Acute - Skin</b>	Contact with the skin may result in irritation. Will have a degreasing effect and repeated or prolonged contact may lead to dermatitis.
<b>Acute - Inhalation</b>	Vapour is irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness, and possible nausea. High concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and unconsciousness.
<b>Chronic</b>	Animal tests indicate that repeated or prolonged exposure to this chemical could result in liver, kidney and central nervous system disorders.

### First Aid

<b>Ingestion</b>	Thoroughly rinse mouth with water. If poisoning occurs contact a doctor or Poisons Information Centre (Phone 113126). Do not make an unconscious person vomit. If vomiting occurs, place victim face downward, head lower than hips, to prevent aspiration of material into the lungs.
<b>Eye</b>	Irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. If discomfort persists seek medical attention.
<b>Skin</b>	Remove ALL contaminated clothing and wash skin thoroughly with soap and water. If swelling, redness, blistering or irritation occurs, seek medical advice.
<b>Inhalation</b>	Remove patient from further exposure. Remove contaminated clothing and loosen remaining clothing. Seek medical advice. Allow patient to resume the most comfortable position and keep warm. Keep patient at rest until recovered. If breathing has stopped, apply artificial respiration at once. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a face mask.
<b>Other Information</b>	A first aid kit should be readily available, with eye bath.



# Material Safety Data Sheet

Product Name: **AMITIK EC / AMIDAZ - PART A****Not Classified as Hazardous according to criteria of Worksafe Australia****Advice to Doctor**

Advice to Doctor      Treat symptomatically. Show this MSDS to the Doctor.

**PRECAUTIONS FOR USE**

Exposure Limits	Name	STEL		TWA		TWA Footnote
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
Other Exposure Info.	As published by the National Health and Safety Commission (Worksafe Australia) Exposure standards means an airborne concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects undue discomfort to nearly all workers. The exposure standard can be of three forms; time-weighted average (TWA), peak limitation, or short term exposure limit (STEL). Aromatic Hydrocarbon TLV: 100 ppm (Recommended by supplier).					
Engineering Controls	Natural ventilation should be adequate under normal use conditions.					

**Personal Protection**

**Protective Equipment**      Avoid skin and eye contact. Wear protective clothing, rubber boots, hat, impervious gloves and goggles. Avoid inhalation of mists and aerosols. Always wash hands before smoking, eating, drinking, or using toilet.

**Flammability**

**Fire Hazards**      Combustible liquid. Avoid all ignition sources.

**SAFE HANDLING INFORMATION****Storage and Transport**

**Storage Precautions**      STORAGE: The product is a Scheduled Poison (S6) and therefore must be stored, maintained and used in accordance with the relevant State Poison Act. Store in accordance with the Australian Standard for the Storage and Handling of Flammable and Combustible Liquids (AS1940). Keep containers tightly closed at all times. Store in original container in a cool place and out of direct sunlight. Store in a well ventilated area away from sources and heat of ignition. Store away from food, drink and animal feed stuffs. TRANSPORT: The product is not classified as a Dangerous Good for the purpose of road and rail transport. Store in accordance with the Australian Standard for the Storage and Handling of Flammable and Combustible Liquids (AS 1940).

**Shipping Name (CSN)**      Not considered a dangerous good by Manufacturer and no UN number issued.



# Material Safety Data Sheet

Page: 4 of 4

Issue Date: August 2006

Product Name: **AMITIK EC / AMIDAZ - PART A****Not Classified as Hazardous according to criteria of Worksafe Australia**

## Spills and Disposal

**Spills and Leaks**

**SPILLS:** Shut off all possible sources of ignition. Increase ventilation. Clean area of unprotected skin and eye contamination and inhalation of vapour. Contain using sand and earth. Prevent runoff into drains or waterways. Absorb. Collect and seal and drums for disposal. Wash down area with excess water. If contamination of sewers or waterways has occurred, advise the local emergency services. **DISPOSALS:** Refer to the State Land Waste Management Authority. Advise Flammable nature.

## Fire/Explosion Hazard

**Fire/Explos. Hazards**

Combustible Liquid. On burning will emit noxious fumes. If in a fire use water foam, carbon dioxide or dry chemical powder. Fire fighters wear self contained breathing apparatus if risk of exposure to vapours of products of combustion

**Hazchem Code**

Not Regulated.

## OTHER INFORMATION

**Toxicology**

Amitraz Toxicity: Oral LD50 (rats) - 800 mg/kg; Aquatic Toxicity: Trout: 48 hour LC50: 2.7 - 4.0 mg/L, Blue Gill: 96 hour LC50: 1.3 mg/L. Surfactant: Oral LD50 (rat): > 2000 mg/kg.

**Risk Statement**

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

**Environmental Protection**

Refer to the Environmental Protection Authority. Avoid contaminating waterways.

**Hazard Category**

Harmful.

## CONTACT POINT

**Contact**

CUSTOMER SERVICE: 1800 226 511

This Material Safety Data Sheet and the information contained herein is provided for the sole purpose of enabling persons handling and using the product to do so with safety. Any other use of this information is prohibited and may constitute an infringement of certain rights of Schering-Plough Animal Health Limited. No rights to this information are given to any person by virtue of the provision of this Material Safety Data Sheet. The information provided herein is believed to be accurate at the time of writing but can be subject to change. No warranty, express or implied, is made as to its accuracy, completeness or otherwise and no assumption of liability howsoever arising is made by Schering-Plough Animal Health Limited by reason of the provision of this information. Every person dealing with the materials referred to herein or the information provided herein does so at their own risk absolutely and should make independent determinations of the suitability or completeness of information from all sources to assure their proper use.

**User Information**

TWA - is the time-weighted average concentration of the work atmosphere for a normal 8 hour work day and a 40 hour work week, to which nearly all workers can be repeatedly exposed without adverse effect. CAS - chemical abstract service registry number.

...End of Report...



# Material Safety Data Sheet

Cydectin Pour-On

WW MSDS No. 30-2684

<b>Section 1. Product and Company Identification</b>	
<b>Manufactured/Supplied by</b>	Fort Dodge Animal Health 800 5th Street NW P.O. Box 518 Fort Dodge, IA 50501 Phone: 515-955-4600 Fax: 515-955-9149
<b>Product Trade Name</b>	Cydectin Pour-On
<b>Common Name</b>	Not applicable.
<b>Synonyms</b>	Moxidectin Pour-On
<b>Chemical Formula</b>	Mixture.
<b>Chemical Family</b>	Not available.
<b>Material Uses</b>	Anthelmintic
<b>Packaging</b>	Plastic bottles.
<b>Formula Type</b>	Topical Solution

<b>Date of Preparation</b>	4 April 2002
<b>Product No.</b>	30-2684
<b>Formula No.</b>	Not available.
<b>CAS No.</b>	Mixture.
<b>U.N. No.</b>	UN1993
<b>EINECS No.</b>	Not applicable.
<b>In Case of Emergency</b>	515-955-6033

<b>Section 2. Composition - Information on Ingredients</b>				
Name of Ingredients	CAS No.	Conc.	EU Symbol	R Phrase
1) Aromatic 100 Solvent		15		R10
2) Moxidectin	113507-06-5	0.5	T	R25
3) Inert Ingredients		84.5	Not controlled.	Not controlled.

<b>Section 3. Hazards Identification - Summary of Primary Effects and Critical Hazards</b>	
<b>Acute Health Effects</b>	Significant adverse health effects are associated with chronic high level exposures.
<b>Chronic Health Effects</b>	Potential organ systems effected are: Eyes, Gastrointestinal Tract. Adverse effects could include: central nervous system depression dizziness/vertigo nausea/vomiting
<b>Environmental Hazards</b>	Highly toxic for: Fish Aquatic Animals

<b>Section 4. First Aid Measures - (by medical responders using "Universal Precautions")</b>	
<b>Eye Contact</b>	Flush eyes with plenty of water for 15 minutes, occasionally lifting upper and lower eyelids. (Check person for contact lenses and remove if present.) If redness or irritation persists have eyes examined by doctor immediately.
<b>Skin Contact</b>	Flush skin with plenty of soap and water for at least 15 minutes (remove all contaminated clothing and shoes). Get medical attention if symptoms persist.
<b>Inhalation</b>	No specific treatment, treat symptomatically. If breathing is difficult give oxygen, if respiratory arrest occurs provide artificial respiration and seek immediate medical assistance.
<b>Ingestion</b>	No specific treatment, treat symptomatically. Call medical doctor or poison control center immediately if large quantities are ingested.
<b>Notes to Medical Doctor</b>	Direct treatment at control of symptoms.

**Continued on Next Page**

**Section 5. Fire-Fighting Measures**

<b>Extinguishing Media and Instructions</b>	Follow your company's procedures. Use an extinguishing agent suitable for the surrounding class of fire.
<b>Special Exposure Hazards</b>	None. Dispose of the fire debris and contaminated fire fighting water in accordance with regulations. In certain Fire conditions, traces of other toxic gases may be emitted.
<b>Special Fire Fighting Protective Equipment</b>	No special precautions or equipment.

**Section 6. Accidental Release Measures**

<b>Small Spill Guidelines</b>	Follow your company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see Section 8). Use a tool to scoop up solid or absorbed material and put into appropriate labeled waste container.
<b>Large Spill Guidelines</b>	Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental Precautions</b>	No special measures are typically indicated.

**Section 7. Handling and Storage**

<b>Handling (ventilation and fire prevention)</b>	Avoid contact with eyes, skin, and clothing. Avoid generating or breathing product aerosol. Wash after handling.
<b>Storage (conditions and limitations)</b>	Store tightly closed in original container. Keep containers in a well ventilated, secure location.

**Section 8. Exposure Controls and Personal Protection - (normal and intended use)**

<b>Exposure Guidelines</b>				
<b>Component</b>	<b>REG. Limit</b>	<b>OSHA (PEL)</b>	<b>ACGIH (TLV®)</b>	<b>Company Guideline</b>
1) Aromatic 100 Solvent 2) Moxidectin	TWA: TWA:	100 ppm	100 ppm	0.05 mg/m <sup>3</sup>
<b>Engineering Design and Control Measures</b>	General ventilation is typically sufficient to keep airborne levels below established values. Provide eye wash and quick drench shower close to work station. Clean, appropriately launder, or dispose of all potentially contaminated work clothing, foot wear, and protective equipment after use.			
<b>Protective Clothing</b>				
<b>Eyes</b>	Safety glasses, goggles or face shield where product aerosol or splash potential exists.			
<b>Skin</b>	Lab coat.			
<b>Hands</b>	Use chemical resistant, impervious gloves. Appropriate techniques should be used to remove potentially contaminated clothing.			
<b>Respiratory</b>	Respirator selection must be based on anticipated exposure levels, product hazards, and the safe working limits of the selected respirator. A respirator is not needed under normal and intended conditions of product use.			

**Section 9. Physical and Chemical Properties**

<b>Physical State and Appearance</b>	Liquid. (Oily liquid.)	<b>Odor</b>	Characteristic. Aromatic.
<b>Molecular Weight</b>	Mixture.	<b>Color</b>	Violet. (Dark.)
<b>Boiling Point</b>	Not available.	<b>pH</b>	Not applicable.
<b>Melting/Freezing Point</b>	-10.4 to -17.9°C (13.3 to -0.2°F)		
<b>Density/Bulk Density</b>	0.918 (Water = 1)		

Continued on Next Page

<b>Vapor Pressure</b>	4 mm of Hg (@ 20°C) (Aromatic 100 Solvent).
<b>Vapor Density</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Partition Coefficient</b>	Not available.
<b>Solubility</b>	Moxidectin Pour-On (Violet): Insoluble in cold water.
<b>Flash Point</b>	CLOSED CUP: 67.778°C (154°F).
<b>Autoignition Point</b>	471.11°C (880°F) (Aromatic 100 Solvent).
<b>Explosion Limits</b>	LOWER: 1.8% UPPER: 12.6% (Aromatic 100 Solvent)
<b>Dust Explosivity</b>	Not applicable.

**Section 10. Stability and Reactivity**

<b>Conditions to Avoid and Incompatibility</b>	Slightly reactive to reactive with acids, alkalis.
<b>Decomposition Products</b>	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).

**Section 11. Toxicological Information**

**Acute Effects**

<b>Component</b>	<b>Test</b>	<b>Result</b>	<b>Route</b>	<b>Species</b>
1) Moxidectin Pour-On (Violet)	LD50 LD50	>5000 mg/kg >2000 mg/kg	oral dermal	Rat Rabbit
<b>Eye Contact</b>	Severely irritating (USA). Irritating (EU).			
<b>Skin Contact</b>	Slightly irritating (USA). Irritating (EU).			
<b>Inhalation</b>	Slightly irritating to the respiratory system.			
<b>Ingestion</b>	Practically non-toxic if swallowed.			

**Chronic Effects**

<b>Target Organs</b>	Potential organ systems effected are: Eyes, Gastrointestinal Tract.
<b>Adverse Effects Statements</b>	Adverse effects could include: central nervous system depression dizziness/vertigo nausea/vomiting
<b>Sensitization</b>	Not available.
<b>Carcinogenic Effects</b>	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
<b>Mutagenic Effects</b>	Not mutagenic in a standard battery of genetic toxicological tests.
<b>Teratogenic Effects</b>	No known human teratogenic effect
<b>Reproductive Effects</b>	No evidence of human reproductive effects.
<b>Other Effects</b>	Not available.

**Section 12. Ecological Information**

**Environmental Fate** Not available.

**Environmental Hazards** Highly toxic for: Fish Aquatic Animals

**Ecotoxicity**

Component	Species	Period	Result
No hazardous ingredients			

**Other** Not available.

**Section 13. Disposal Considerations**

**Waste Handling and Disposal** Avoid disposal, make attempts to use product completely in accordance with intended use. Incinerate unwanted products and waste materials.

*Note: The waste generator must be informed of and follow all applicable rules and regulations for the handling and disposal of waste.*

**Section 14. Transport Information**

**Proper Shipping Name, Primary Class, UNNA Number, Packaging Group** Not available.

**ADR/RID Classification (Road and Rail Transport)** Class 3: Flammable liquid A.

**ADNR Classification (Inland Waterways)** Class 3: Flammable liquid A.

**IMO/IMDG Class (Maritime Transport)** Class 3.3: Flammable liquid (High flashpoint group of liquids having a flashpoint of 23°C (73°F) up to, and including, 61°C (141°F) c.c.).  
Class 3.1: Flammable liquid (Low flashpoint group of liquids having a flashpoint below -18°C (0°F) c.c.).

**ICAO/IATA (Air Transport)** Class 3: Flammable liquid.

**CEFIC Tremcard** Not available.

**HI Kemler** Not available.

**U.S.A. DOT Class** Class 3: Combustible liquid with a flash point greater than 37.8C (100F).



**NFPA**

Health



Flammability

Reactivity

Specific hazard

**RQ** Not applicable.

**Packaging Instructions** Not available.

**Section 15. Regulatory Information and Warning Labels**

**(R) Risk Phrases** R10- Flammable.

**(S) Safety Phrases** S2- Keep out of reach of children.  
S40- To clean the floor and all objects contaminated by this material, use water.

*NOTE: This product has been classified in accordance with applicable country-specific regulations.*

**Section 16. Other Key Information**

**Other Considerations** See product label and package insert for additional information.

4 April 2002 **Responsible for MSDS:** Global Engineering, Environmental and Safety

Fort Dodge Animal Health -- within American Home Products Corporation

**Notice to Reader**

*\* This symbol indicates information which has changed from the previous MSDS.*

*The information provided in this MSDS is based on current knowledge, however, this does not constitute a warranty by the Company for that information. The product user is responsible for the appropriate and intended handling, use, and disposal of this product in accordance with label or package precautions and this information. All materials may present unknown hazards and should be used with caution.*

*MSDSs available in multiple languages*



9) Appendix 3 - List of APVMA approved parasite control products for cattle



# Chemicals for controlling paralysis ticks in cattle

## Stephen Ottaway

Former Senior Field Veterinary Officer

## Lee Cook

Veterinarian (Chemical Control)

Animal & Plant Biosecurity, Orange

If you have relied on Baytical Pour-On® to control paralysis ticks in your cattle you need to consider alternatives.

### **Baytical Pour-On® is no longer registered, and using this product is now illegal.**

There are NO pour-on products registered for the control of paralysis ticks on livestock.

There is now an ear tag registered for paralysis tick control. Obviously for optimum protection calves should be tagged as soon as possible after birth. The manufacturers recommend treatment of both cow and calf with the tag.

There are spray and dipping treatments that can be used but the period of protection will be much shorter than that provided by Baytical Pour-On®. It is also necessary to wet the entire animal with spray to be effective.

In the case of heavy infestations, regular treatments at intervals as short as 1 week may be needed. For some chemicals, this will mean careful management of withholding periods (WHPs) and export slaughter intervals (ESIs) to avoid unacceptable residues. Some labels prescribe minimum retreatment times.

Use the correct safety equipment and dispose of containers and unused chemical as recommended by the manufacturer.

Do not use ANY chemical which is not registered or permitted for the control of paralysis tick. Using a non-registered chemical or 'home remedy' could cause unacceptable residues in meat and put beef exports at risk.

[Table 1](#) (see page 2) lists chemicals registered for control of paralysis tick as at 30 November 2005. Please check with your supplier that the chemical you choose is still registered.

For details on property management options aimed at reducing the chances of calves picking up ticks see [Agnote DAI-267 Paralysis ticks](#).

## Further advice

For more advice, contact your District Veterinarian, private veterinarian or NSW DPI Livestock Advisory Officer.

**Disclaimer:** The product trade names in this publication are supplied on the understanding that no preference between equivalent products is intended and that the inclusion of a product name does not imply endorsement by NSW DPI over any equivalent products from another manufacturer.

### **Always read the label**

Users of agricultural chemical products *must always* read the label and any permit before using the product, and strictly comply with the directions on the label and the conditions of any permit. Users are not absolved from compliance with the directions on the label or the conditions of the permit by reason of any statement made or not made in this publication.

**See Table 1 next page.**



**Table 1. Chemicals registered and available in NSW for control of paralysis tick (*Ixodes holocyclus*) at 30 November 2005**

Product name	Mode of application	Active ingredient	Treatment interval	WHP	ESI
Amitraz EC	spray	amitraz	7–10 days	nil	nil
Taktic EC	spray	amitraz	7–10 days	nil	nil
Coopers Amitik EC	spray	amitraz	7–10 days	nil	nil
Coopers Amitik	dip and spray	amitraz	7–10 days	nil	nil
Taktic WP	dip and spray	amitraz	7–10 days	nil	nil
Barricade 'S'	dip and spray	cypermethrin chlorfenvinphos	10 days minimum	8 days*	21 days
Coopers Blockade 'S'	dip and spray	cypermethrin chlorfenvinphos	10 days minimum	8 days*	21 days
Bayticol Cattle Dip and Spray	dip and spray	flumethrin	10 days	nil	nil
Y-TEX Python insecticidal cattle ear tags	ear tag	zeta cypermethrin	Aids in control up to 42 days	nil	nil

\* Not suitable for use on cattle producing milk for human consumption.  
WHP = withholding period  
ESI = export slaughter interval

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ISSN 1832-6668

JOB NUMBER 6352

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**Disclaimer:** The information contained in this publication is based on knowledge and understanding at the time of writing (December 2005). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.

## lice

Product No	Category	Product Name	Actives
33475	PARASITICIDES	COOPERS DI-JET SHEEP DIP/JETTING FLUID, CATTLE AND PIG SPRAY	DIAZINON / HYDROCARBON SOLVENT
45721	PARASITICIDES	IVOMEK (IVERMECTIN) POUR-ON FOR CATTLE	IVERMECTIN
45970	PARASITICIDES	CYDECTIN POUR-ON FOR CATTLE AND RED DEER	HYDROCARBON LIQUID / MOXIDECTIN
46570	PARASITICIDES	IVOMEK ANTIPARASITIC INJECTION FOR CATTLE	IVERMECTIN
47652	PARASITICIDES	VIRBAMEC ANTIPARASITIC INJECTION FOR CATTLE	ABAMECTIN
49105	PARASITICIDES	IVOMEK EPRINEX (EPRINOMECTIN) POUR-ON FOR BEEF AND DAIRY CATTLE	EPRINOMECTIN
49703	PARASITICIDES	GENESIS INJECTION ABAMECTIN ANTIPARASITIC FOR CATTLE & SHEEP	ABAMECTIN
50781	PARASITICIDES	ELANCO AH0487 DEMIZE POUR-ON FOR CATTLE	ZETA-CYPERMETHRIN
50972	PARASITICIDES	GENESIS INJECTION IVERMECTIN ANTIPARASITIC FOR CATTLE	IVERMECTIN
51265	PARASITICIDES	NOROMECTIN POUR-ON FOR CATTLE	IVERMECTIN
51550	PARASITICIDES	NOROMECTIN INJECTABLE FOR CATTLE	IVERMECTIN
52406	PARASITICIDES	FASIMEC CATTLE ORAL FLUKICIDE AND BROAD SPECTRUM DRENCH	IVERMECTIN / TRICLABENDAZOLE
52528	PARASITICIDES	ECOMECTIN ANTIPARASITIC INJECTION FOR CATTLE	IVERMECTIN
52711	PARASITICIDES	ECOMECTIN CATTLE POUR-ON	IVERMECTIN
53939	PARASITICIDES	VIRBAC IVERMECTIN POUR-ON FOR BEEF AND DAIRY CATTLE	IVERMECTIN
54096	PARASITICIDES	COOPERS EASY-DOSE POUR-ON CATTLE LICE AND FLY TREATMENT	DELTAMETHRIN
54297	PARASITICIDES	WSD ABAMECTIN POUR-ON ENDECTOCIDE FOR CATTLE	ABAMECTIN
54423	PARASITICIDES	VIRBAC VIRBAMAX POUR-ON FOR BEEF AND DAIRY CATTLE	IVERMECTIN
55098	PARASITICIDES	ARREST EASY-DOSE POUR-ON CATTLE LICE AND FLY TREATMENT	DELTAMETHRIN
55308	PARASITICIDES	BOMBARD POUR-ON CATTLE LICE AND FLY TREATMENT	DELTAMETHRIN
55679	PARASITICIDES	VIRBAC DELTAMETHRIN POUR-ON CATTLE LICE AND FLY TREATMENT	DELTAMETHRIN
56165	PARASITICIDES	Y-TEX BRUTE POUR-ON FOR CATTLE	PERMETHRIN (25:75::CIS:TRANS)
56315	PARASITICIDES	GENESIS INJECTION ABAMECTIN PLUS VITAMIN B12 ANTIPARASITIC FOR CATTLE & SHEEP	ABAMECTIN / VITAMIN B12
56769	PARASITICIDES	NOROMECTIN ANTIPARASITIC INJECTION FOR CATTLE AND PIGS	IVERMECTIN
56846	PARASITICIDES	BOMECTIN ANTIPARASITIC INJECTION FOR CATTLE AND PIGS	IVERMECTIN
58231	PARASITICIDES	VETIMEC IVERMECTIN INJECTION FOR CATTLE	IVERMECTIN
58232	PARASITICIDES	VETIMEC IVERMECTIN POUR-ON FOR CATTLE	IVERMECTIN
58560	PARASITICIDES	YOUNG'S TRICLAMEC CATTLE ORAL FLUKICIDE AND BROAD SPECTRUM DRENCH	IVERMECTIN / TRICLABENDAZOLE
58641	PARASITICIDES	PHOENECTIN (IVERMECTIN) POUR-ON FOR CATTLE	IVERMECTIN
59633	PARASITICIDES	ZENITH POUR-ON LICE DECIMATOR FOR CATTLE & SHEEP	DIFLUBENZURON / N-METHYL-2-PYRROLIDONE
59900	PARASITICIDES	AUSMECTIN CATTLE POUR-ON	IVERMECTIN
60116	PARASITICIDES	CYDECTIN LONG ACTING INJECTION FOR CATTLE	MOXIDECTIN
60203	PARASITICIDES	BOVIMECTIN POUR-ON FOR CATTLE	IVERMECTIN
60439	PARASITICIDES	RURAL WEST BOVIMEC CATTLE POUR-ON	IVERMECTIN
60494	PARASITICIDES	ACATAK DUOSTAR TICK DEVELOPMENT INHIBITOR AND BROAD SPECTRUM POUR-ON	FLUAZURON / IVERMECTIN
60503	PARASITICIDES	VETMEC F BROAD SPECTRUM ANTIPARASITIC CATTLE INJECTION	CLORSULON / IVERMECTIN
60795	PARASITICIDES	NOROMECTIN PLUS BROADSPECTRUM ANTIPARASITIC INJECTION FOR CATTLE	CLORSULON / IVERMECTIN
61262	PARASITICIDES	BOVIMECTIN PLUS INJECTION BROADSPECTRUM ANTIPARASITIC INJECTION FOR CATTLE	CLORSULON / IVERMECTIN
61351	PARASITICIDES	STAMPEDE POUR-ON LOUSICIDE FOR CATTLE & SHEEP	DIFLUBENZURON / N-METHYL-2-PYRROLIDONE
61413	PARASITICIDES	DELTAFLY EASY-DOSE POUR-ON CATTLE LICE AND FLY TREATMENT	DELTAMETHRIN
61790	PARASITICIDES	WSD ENDOMEK ABAMECTIN POUR ON FOR DAIRY AND BEEF CATTLE	ABAMECTIN

moxidectin

Product No	Category	Product Name	Actives
45663	PARASITICIDES	CYDECTIN INJECTION FOR CATTLE	MOXIDECTIN CONCENTRATE
45970	PARASITICIDES	CYDECTIN POUR-ON FOR CATTLE AND RED DEER	MOXIDECTIN
46905	PARASITICIDES	CYDECTIN INJECTION FOR CATTLE AND SHEEP	MOXIDECTIN
60116	PARASITICIDES	CYDECTIN LONG ACTING INJECTION FOR CATTLE	MOXIDECTIN

tick

Product No	Category	Product Name	Actives
37513	PARASITICIDES	AVOMEK ANTIPARASITIC INJECTION FOR CATTLE	ABAMECTIN
37823	ANTIBIOTIC & RELATED	TERRAMYCIN /LA INJECTABLE SOLUTION	OXYTETRACYCLINE
39823	PARASITICIDES	TAKTIC EC ACARICIDAL SPRAY FOR CATTLE AND PIGS	AMITRAZ / HYDROCARBON LIQUID / STABAXOL (STABILISER)
41037	PARASITICIDES	BAYTICOL CATTLE DIP AND SPRAY	FLUMETHRIN / HYDROCARBON LIQUID
41044	PARASITICIDES	COOPERS AMITIK CATTLE DIP AND SPRAY	AMITRAZ
41151	IMMUNOTHERAPY	COMBAVAC BABESIA BOVIS VACCINE CONCENTRATE	BABESIA BOVIS
41152	IMMUNOTHERAPY	COMBAVAC BABESIA BIGEMINA VACCINE CONCENTRATE	ANAPLASMA CENTRALE / BABESIA BIGEMINA / BABESIA BOVIS
41153	IMMUNOTHERAPY	COMBAVAC ANAPLASMA CENTRALE VACCINE CONCENTRATE	ANAPLASMA CENTRALE / BABESIA BIGEMINA / BABESIA BOVIS
41278	PARASITICIDES	TAKTIC WP CATTLE DIP AND SPRAY	AMITRAZ
45044	PARASITICIDES	COOPERS AMITIK EC CATTLE AND PIG SPRAY	AMITRAZ / HYDROCARBON LIQUID
45211	PARASITICIDES	BARRICADE 'S' CATTLE DIP AND SPRAY	CHLORFENVINPHOS / CYPERMETHRIN / HYDROCARBON SOLVENT
45359	PARASITICIDES	IVOMEK PLUS (IVERMECTIN PLUS CLORSULON) BROADSPECTRUM ANTIPARASITIC INJECTION FOR CATTLE	CLORSULON / IVERMECTIN
45497	ANTIBIOTIC & RELATED	COOPERS IMIZOL	IMIDOCARB DIPROPIONATE
45663	PARASITICIDES	CYDECTIN INJECTION FOR CATTLE	MOXIDECTIN CONCENTRATE
45721	PARASITICIDES	IVOMEK (IVERMECTIN) POUR-ON FOR CATTLE	IVERMECTIN
45740	PARASITICIDES	ACATAK POUR-ON TICK DEVELOPMENT INHIBITOR	1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON
45970	PARASITICIDES	CYDECTIN POUR-ON FOR CATTLE AND RED DEER	HYDROCARBON LIQUID / MOXIDECTIN
45981	PARASITICIDES	COOPERS TIXAFLY CATTLE DIP AND SPRAY	DELTAMETHRIN / ETHION / HYDROCARBON SOLVENT
46128	PARASITICIDES	DECTOMAX INJECTABLE ENDECTOCIDE	DORAMECTIN
46570	PARASITICIDES	IVOMEK ANTIPARASITIC INJECTION FOR CATTLE	IVERMECTIN
46815	PARASITICIDES	COOPERS BLOCKADE 'S' CATTLE DIP AND SPRAY	CHLORFENVINPHOS / CYPERMETHRIN / HYDROCARBON LIQUID
46905	PARASITICIDES	CYDECTIN INJECTION FOR CATTLE AND SHEEP	MOXIDECTIN
47652	PARASITICIDES	VIRBAMEK ANTIPARASITIC INJECTION FOR CATTLE	ABAMECTIN
47681	PARASITICIDES	VIRBAMEK POUR-ON FOR CATTLE	ABAMECTIN
48200	PARASITICIDES	AMITRAZ EC CATTLE AND PIG SPRAY	AMITRAZ / HYDROCARBON LIQUID
49105	PARASITICIDES	IVOMEK EPRINEX (EPRINOMECTIN) POUR-ON FOR BEEF AND DAIRY CATTLE	EPRINOMECTIN
49665	PARASITICIDES	DECTOMAX POUR-ON ENDECTOCIDE	DORAMECTIN
49703	PARASITICIDES	GENESIS INJECTION ABAMECTIN ANTIPARASITIC FOR CATTLE & SHEEP	ABAMECTIN
49715	IMMUNOTHERAPY	BIVALENT TICK FEVER VACCINE	ANAPLASMA CENTRALE / BABESIA BOVIS / SODIUM BICARBONATE
49716	IMMUNOTHERAPY	TRIVALENT TICK FEVER VACCINE	ANAPLASMA CENTRALE / BABESIA BIGEMINA / BABESIA BOVIS
49917	PARASITICIDES	PARAMECTIN INJECTION FOR CATTLE	ABAMECTIN
50341	PARASITICIDES	PARAMECTIN POUR-ON FOR CATTLE	ABAMECTIN / DIETHYLENE GLYCOL MONOBUTYL ETHER
50453	PARASITICIDES	ABACARE POUR-ON ENDECTOCIDE FOR CATTLE	ABAMECTIN
50558	PARASITICIDES	COOPERS PARAMAX POUR-ON FOR BEEF AND DAIRY CATTLE	IVERMECTIN
50972	PARASITICIDES	GENESIS INJECTION IVERMECTIN ANTIPARASITIC FOR CATTLE	IVERMECTIN
50974	PARASITICIDES	GENESIS POUR-ON IVERMECTIN ENDECTOCIDE FOR CATTLE	IVERMECTIN
51138	PARASITICIDES	IVERMECTIN BAYMEK POUR-ON FOR CATTLE	IVERMECTIN
51149	PARASITICIDES	TICKOFF WP CATTLE TICKICIDE	AMITRAZ
51265	PARASITICIDES	NOROMECTIN POUR-ON FOR CATTLE	IVERMECTIN
51550	PARASITICIDES	NOROMECTIN INJECTABLE FOR CATTLE	IVERMECTIN
51817	PARASITICIDES	VETMEK ANTIPARASITIC CATTLE INJECTION	ABAMECTIN
52528	PARASITICIDES	ECOMECTIN ANTIPARASITIC INJECTION FOR CATTLE	IVERMECTIN
52711	PARASITICIDES	ECOMECTIN CATTLE POUR-ON	IVERMECTIN
53364	PARASITICIDES	VIRBAC DAIRYMEK IVERMECTIN POUR-ON FOR DRY AND LACTATING DAIRY CATTLE	IVERMECTIN
53549	PARASITICIDES	PARAMECTIN RV POUR-ON FOR CATTLE	ABAMECTIN / DIETHYLENE GLYCOL MONOBUTYL ETHER
53629	IMMUNOTHERAPY	COMBAVAC 3 IN 1 LIVE TICK FEVER VACCINE	ANAPLASMA CENTRALE / BABESIA BIGEMINA / BABESIA BOVIS
53939	PARASITICIDES	VIRBAC IVERMECTIN POUR-ON FOR BEEF AND DAIRY CATTLE	IVERMECTIN
54297	PARASITICIDES	WSD ABAMECTIN POUR-ON ENDECTOCIDE FOR CATTLE	ABAMECTIN
54423	PARASITICIDES	VIRBAC VIRBAMAX POUR-ON FOR BEEF AND DAIRY CATTLE	IVERMECTIN
54880	PARASITICIDES	VIRBAC VIRBAMAX PLUS ANTIPARASITIC INJECTION FOR BEEF AND DAIRY CATTLE	CLORSULON / IVERMECTIN
55235	ANTIBIOTIC & RELATED	IMIDOX INJECTION	IMIDOCARB DIPROPIONATE
55699	PARASITICIDES	GENESIS ULTRA INJECTION BROAD SPECTRUM ANTIPARASITIC FOR BEEF CATTLE	CLORSULON / IVERMECTIN
55727	PARASITICIDES	VIRBAC VIRBAMEK LA INJECTION ENDECTOCIDE FOR CATTLE	IVERMECTIN
55857	PARASITICIDES	ARREST FLY & TICK DIP & SPRAY FOR CATTLE	DELTAMETHRIN / ETHION / HYDROCARBON LIQUID
56315	PARASITICIDES	GENESIS INJECTION ABAMECTIN PLUS VITAMIN B12 ANTIPARASITIC FOR CATTLE & SHEEP	ABAMECTIN / VITAMIN B12

tick

56338|PARASITICIDES|WINTIX POUR-ON TICK DEVELOPMENT INHIBITOR|1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON  
56465|PARASITICIDES|GENESIS ULTRA POUR-ON ROUNDWORM, LIVER FLUKE & EXTERNAL PARASITICIDE FOR CATTLE|ABAMECTIN / TRICLABENDAZOLE  
56736|PARASITICIDES|VIRBAC VIRBAMEC LV POUR-ON ENDECTOCIDE FOR CATTLE|IVERMECTIN  
56753|PARASITICIDES|VIRBAC VIRBAMEC POUR-ON ENDECTOCIDE FOR CATTLE|ABAMECTIN  
56755|PARASITICIDES|VIRBAC VIRBAMEC PLUS INJECTION ENDECTOCIDE & FLUKICIDE FOR CATTLE|CLORSULON / IVERMECTIN  
56769|PARASITICIDES|NOROMECTIN ANTIPARASITIC INJECTION FOR CATTLE AND PIGS|IVERMECTIN  
56789|PARASITICIDES|VIRBAC BEEFMEC POUR-ON ENDECTOCIDE FOR CATTLE|ABAMECTIN  
56846|PARASITICIDES|BOMECTIN ANTIPARASITIC INJECTION FOR CATTLE AND PIGS|IVERMECTIN  
56891|PARASITICIDES|ELTIK POUR-ON TICK DEVELOPMENT INHIBITOR|1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON  
57950|PARASITICIDES|BAYTICOL POUR-ON LIVE EXPORT CLEARING TICKICIDE|FLUMETHRIN  
58015|PARASITICIDES|FLUTIK POUR-ON TICK DEVELOPMENT INHIBITOR|1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON  
58231|PARASITICIDES|VETIMEC IVERMECTIN INJECTION FOR CATTLE|IVERMECTIN  
58232|PARASITICIDES|VETIMEC IVERMECTIN POUR-ON FOR CATTLE|IVERMECTIN  
58517|PARASITICIDES|YOUNG'S FLUTIK POUR-ON TICK DEVELOPMENT INHIBITOR|1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON  
58641|PARASITICIDES|PHOENECTIN (IVERMECTIN) POUR-ON FOR CATTLE|IVERMECTIN  
58799|PARASITICIDES|OZTIK POUR-ON TICK INHIBITOR FOR CATTLE|1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON  
58970|PARASITICIDES|ANFLUKE POUR-ON ROUNDWORM, LIVER FLUKE & EXTERNAL PARASITICIDE FOR CATTLE|ABAMECTIN / TRICLABENDAZOLE  
58971|PARASITICIDES|FASIMEC CATTLE POUR-ON FLUKICIDE AND BROAD SPECTRUM ANTHELMINTIC|ABAMECTIN / TRICLABENDAZOLE  
58978|PARASITICIDES|YOUNG'S TRICLAMEC CATTLE POUR-ON FLUKICIDE AND BROAD SPECTRUM ANTHELMINTIC|ABAMECTIN / TRICLABENDAZOLE  
59344|PARASITICIDES|IMAX CD POUR-ON FOR CATTLE|IVERMECTIN  
59900|PARASITICIDES|AUSMECTIN CATTLE POUR-ON|IVERMECTIN  
60203|PARASITICIDES|BOVIMECTIN POUR-ON FOR CATTLE|IVERMECTIN  
60439|PARASITICIDES|RURAL WEST BOVIMEC CATTLE POUR-ON|IVERMECTIN  
60494|PARASITICIDES|ACATAK DUOSTAR TICK DEVELOPMENT INHIBITOR AND BROAD SPECTRUM POUR-ON|FLUAZURON / IVERMECTIN  
60503|PARASITICIDES|VETMEC F BROAD SPECTRUM ANTIPARASITIC CATTLE INJECTION|CLORSULON / IVERMECTIN  
60795|PARASITICIDES|NOROMECTIN PLUS BROADSPECTRUM ANTIPARASITIC INJECTION FOR CATTLE|CLORSULON / IVERMECTIN  
61262|PARASITICIDES|BOVIMECTIN PLUS INJECTION BROADSPECTRUM ANTIPARASITIC INJECTION FOR CATTLE|CLORSULON / IVERMECTIN  
61297|PARASITICIDES|VET'S CHOICE IVERMECTIN POUR ON FOR CATTLE|IVERMECTIN  
61414|PARASITICIDES|CATTLEMAX POUR-ON FOR BEEF AND DAIRY CATTLE|IVERMECTIN  
61790|PARASITICIDES|WSD ENDOMEK ABAMECTIN POUR ON FOR DAIRY AND BEEF CATTLE|ABAMECTIN  
61813|PARASITICIDES|VETMEC POUR-ON FOR CATTLE|IVERMECTIN  
62048|PARASITICIDES|BOMECTIN POUR-ON FOR CATTLE|IVERMECTIN

parasites

Product No	Category	Product Name	Actives
33021	PARASITICIDES	PHARMACHEMICAL MALDISON 50 INSECTICIDE	HYDROCARBON LIQUID / MALDISON
33468	PARASITICIDES	COOPERS COOPAFLY POUR-ON FLY AND CATTLE LICE TREATMENT	CYCLOHEXANONE / DELTAMETHRIN / XYLENE
33475	PARASITICIDES	COOPERS DI-JET SHEEP DIP/JETTING FLUID, CATTLE AND PIG SPRAY	DIAZINON / HYDROCARBON SOLVENT
33520	PARASITICIDES	TIGUVON SPOT-ON CATTLE LICE INSECTICIDE	FENTHION
35788	PARASITICIDES	NEGUVON SOLUBLE POWDER ANTHELMINTIC, BOTICIDE	TRICHLORFON
36089	PARASITICIDES	COOPERS NILZAN LV ORAL DRENCH	LEVAMISOLE HYDROCHLORIDE / OXYCLOZANIDE
36096	PARASITICIDES	COOPERS NILVERM ORAL DRENCH	LEVAMISOLE HYDROCHLORIDE
36099	PARASITICIDES	COOPERS SYSTAMEX CONCENTRATED DRENCH FOR BEEF DAIRY CATTLE & HORSES	OXFENDAZOLE
36152	PARASITICIDES	COOPERS NILVERM LV ORAL DRENCH	LEVAMISOLE HYDROCHLORIDE
36168	PARASITICIDES	COOPERS NILVERM POUR-ON CATTLE WORMER	ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE / LEVAMISOLE
37088	PARASITICIDES	PANACUR 100 ORAL ANTHELMINTIC FOR CATTLE AND HORSES	FENBENDAZOLE
37097	PARASITICIDES	PANACUR 25 ORAL ANTHELMINTIC FOR SHEEP CATTLE AND GOATS	FENBENDAZOLE
37203	PARASITICIDES	INCA BAN-FLY INSECTICIDAL SPRAY FOR ANIMALS	CITRONELLA OIL / DI-N-PROPYL ISOCINCHOMERONATE / DIETHYLTOLUAMIDE / N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE / PIPERONYL BUTOXIDE / PYRETHRINS
37513	PARASITICIDES	AVOMEC ANTIPARASITIC INJECTION FOR CATTLE	ABAMECTIN
38044	PARASITICIDES	TRODAX INJECTABLE ANTHELMINTIC	NITROXYNIL AS EGLUMINE
38422	PARASITICIDES	SYKES BIG L WORM DRENCH FOR SHEEP & CATTLE	LEVAMISOLE HYDROCHLORIDE
38842	PARASITICIDES	LEVAMISOLE GOLD ORAL ANTHELMINTIC FOR SHEEP AND CATTLE	LEVAMISOLE HYDROCHLORIDE
38851	PARASITICIDES	LEVAMISOLE GOLD LV ORAL ANTHELMINTIC FOR SHEEP AND CATTLE	LEVAMISOLE HYDROCHLORIDE
38897	PARASITICIDES	VIRBAC MULESING AND FLY STRIKE POWDER	DIAZINON
39062	PARASITICIDES	WSD LEVAMISOLE ORAL ANTHELMINTIC FOR SHEEP AND CATTLE	LEVAMISOLE HYDROCHLORIDE
39063	PARASITICIDES	WSD LOW VOLUME LEVAMISOLE ORAL ANTHELMINTIC FOR SHEEP AND CATTLE	LEVAMISOLE HYDROCHLORIDE
39068	PARASITICIDES	WSD FENBENDAZOLE ORAL ANTHELMINTIC FOR SHEEP, GOATS AND CATTLE	FENBENDAZOLE
39572	PARASITICIDES	WSD DIAZINON FOR SHEEP, CATTLE, GOATS AND PIGS	DIAZINON / HYDROCARBON SOLVENT
39573	PARASITICIDES	WSD FLY STRIKE POWDER TO CONTROL FLYSTRIKE AND FOR WOUND DRESSING FOR ANIMALS	DIAZINON / PIPERONYL BUTOXIDE / PYRETHRIN
39574	PARASITICIDES	WSD MULESING POWDER WOUND DRESSING FOLLOWING MULES OPERATION GENERAL WOUND DRESSING FOR SHEEP, CATTLE AND GOATS	DIAZINON / PIPERONYL BUTOXIDE / PYRETHRINS
39816	PARASITICIDES	VIRBAC OXFEN C ANTHELMINTIC FOR CATTLE	OXFENDAZOLE
39823	PARASITICIDES	TAKTIC EC ACARICIDAL SPRAY FOR CATTLE AND PIGS	AMITRAZ / HYDROCARBON LIQUID / STABAXOL (STABILISER)
40030	PARASITICIDES	VIRBAC LEVAMISOLE POUR-ON ANTHELMINTIC FOR CATTLE	LEVAMISOLE
40267	PARASITICIDES	OXFEN LV ANTHELMINTIC FOR SHEEP CATTLE AND GOATS	OXFENDAZOLE
40427	PARASITICIDES	WSD FENBENDAZOLE 100 ORAL ANTHELMINTIC FOR CATTLE AND HORSES	FENBENDAZOLE
41037	PARASITICIDES	BAYTICOL CATTLE DIP AND SPRAY	FLUMETHRIN / HYDROCARBON LIQUID
41044	PARASITICIDES	COOPERS AMITIK CATTLE DIP AND SPRAY	AMITRAZ
41278	PARASITICIDES	TAKTIC WP CATTLE DIP AND SPRAY	AMITRAZ
42134	PARASITICIDES	RABON INSECTICIDAL EAR TAGS	TETRACHLORVINPHOS
45044	PARASITICIDES	COOPERS AMITIK EC CATTLE AND PIG SPRAY	AMITRAZ / HYDROCARBON LIQUID
45172	PARASITICIDES	PHARMA-CHEMICAL SUPERSHIELD INSECT REPELLENT FOR FLIES, MOSQUITOES & BITING INSECTS	CITRONELLA OIL / DI-N-PROPYL ISOCINCHOMERONATE / DIETHYLTOLUAMIDE / N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE / PIPERONYL BUTOXIDE / PYRETHRIN
45211	PARASITICIDES	BARRICADE 'S' CATTLE DIP AND SPRAY	CHLORFENVINPHOS / CYPERMETHRIN / HYDROCARBON SOLVENT
45359	PARASITICIDES	IVOMEC PLUS (IVERMECTIN PLUS CLORSULON) BROADSPECTRUM ANTIPARASITIC INJECTION FOR CATTLE	CLORSULON / IVERMECTIN
45594	PARASITICIDES	SUPONA BUFFALO FLY INSECTICIDE	CHLORFENVINPHOS / HYDROCARBON LIQUID
45663	PARASITICIDES	CYDECTIN INJECTION FOR CATTLE	MOXIDECTIN CONCENTRATE
45721	PARASITICIDES	IVOMEC (IVERMECTIN) POUR-ON FOR CATTLE	IVERMECTIN
45736	PARASITICIDES	DEFIANCE S INSECTICIDAL FLYSTRIKE, MULES AND WOUND DRESSING	CHLORFENVINPHOS / CRESYLIC ACID / EUCALYPTUS OIL / HYDROCARBON LIQUID / NAPHTHALENE / PETROLEUM OIL
45740	PARASITICIDES	ACATAK POUR-ON TICK DEVELOPMENT INHIBITOR	1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON
45970	PARASITICIDES	CYDECTIN POUR-ON FOR CATTLE AND RED DEER	HYDROCARBON LIQUID / MOXIDECTIN
45981	PARASITICIDES	COOPERS TIXAFLY CATTLE DIP AND SPRAY	DELTAMETHRIN / ETHION / HYDROCARBON SOLVENT
46128	PARASITICIDES	DECTOMAX INJECTABLE ENDECTOCIDE	DORAMECTIN
46166	PARASITICIDES	LYPOR 200 POUR ON INSECTICIDE FOR CATTLE	HYDROCARBON SOLVENT / TEMEPHOS
46231	PARASITICIDES	COOPERS FLY STRIKE POWDER INSECTICIDE	DIAZINON / PIPERONYL BUTOXIDE / PYRETHRINS
46406	PARASITICIDES	Y-TEX OPTIMIZER INSECTICIDAL CATTLE EAR TAGS	DIAZINON

parasites

46482|PARASITICIDES|VIRBAC FENCARE 100 ANTHELMINTIC FOR CATTLE AND HORSES|FENBENDAZOLE  
46483|PARASITICIDES|MINERALISED LEVAMISOLE MINI DOSE ORAL ANTHELMINTIC FOR SHEEP AND CATTLE  
WITH COPPER, COBALT, SELENIUM, IODINE AND ZINC TRACE ELEMENTS|COBALT / COPPER / IODINE /  
LEVAMISOLE HYDROCHLORIDE / SELENIUM / ZINC  
46522|PARASITICIDES|MINERALISED FENCARE ANTHELMINTIC FOR SHEEP AND CATTLE WITH COPPER,  
COBALT, ZINC, SELENIUM & IODINE|COBALT AS COBALT DISODIUM CHELATE / COPPER AS COPPER  
DISODIUM EDETATE CHELATE / FENBENDAZOLE / IODINE AS ETHYLENE DIAMINE DIHYDROIODIDE /  
SELENIUM AS SODIUM SELENATE / ZINC AS ZINC DISODIUM EDETATE CHELATE  
46570|PARASITICIDES|IVOMEK ANTIPARASITIC INJECTION FOR CATTLE|IVERMECTIN  
46725|PARASITICIDES|FARNAM WORMA DRENCH BROAD SPECTRUM ORAL ANTHELMINTIC FOR HORSES AND  
CATTLE|OXFENDAZOLE  
46815|PARASITICIDES|COOPERS BLOCKADE 'S' CATTLE DIP AND SPRAY|CHLORFENVINPHOS / CYPERMETHRIN  
/ HYDROCARBON LIQUID  
46818|PARASITICIDES|VALBAZEN BROAD SPECTRUM MINI-DOSE CATTLE DRENCH|ALBENDAZOLE  
46905|PARASITICIDES|CYDECTIN INJECTION FOR CATTLE AND SHEEP|MOXIDECTIN  
46973|PARASITICIDES|LEVAMISOLE GOLD MIXADRM CONCENTRATE ORAL ANTHELMINTIC FOR SHEEP AND  
CATTLE|LEVAMISOLE HYDROCHLORIDE  
47343|PARASITICIDES|SUMIFLY BUFFALO FLY INSECTICIDE|FENVALERATE / HYDROCARBON LIQUID  
47652|PARASITICIDES|VIRBAMEK ANTIPARASITIC INJECTION FOR CATTLE|ABAMECTIN  
47675|PARASITICIDES|FASINEX 120 FLUKICIDE FOR CATTLE AND SHEEP|TRICLABENDAZOLE  
47676|PARASITICIDES|FASINEX 50 FLUKICIDE FOR SHEEP CATTLE AND GOATS|TRICLABENDAZOLE  
47681|PARASITICIDES|VIRBAMEK POUR-ON FOR CATTLE|ABAMECTIN  
47753|PARASITICIDES|MUSCA-BAN INSECTICIDAL SPRAY|CITRONELLA OIL / DI-N-PROPYL  
ISOCINCHOMERONATE / N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE / PIPERONYL BUTOXIDE / PYRETHRINS  
48119|PARASITICIDES|STRATEGIK MINI-DOSE WORMING DRENCH FOR CATTLE|ALBENDAZOLE  
48148|PARASITICIDES|Y-TEX PYTHON INSECTICIDAL CATTLE EAR TAGS|PIPERONYL BUTOXIDE /  
ZETA-CYPERMETHRIN  
48200|PARASITICIDES|AMITRAZ EC CATTLE AND PIG SPRAY|AMITRAZ / HYDROCARBON LIQUID  
48362|PARASITICIDES|WSD ALBENDAZOLE CATTLE MINI DRENCH|ALBENDAZOLE  
48944|PARASITICIDES|OXAZOLE CONCENTRATED WORMING DRENCH FOR CATTLE AND HORSES|OXFENDAZOLE  
49105|PARASITICIDES|IVOMEK EPRINEX (EPRINOMECTIN) POUR-ON FOR BEEF AND DAIRY  
CATTLE|EPRINOMECTIN  
49226|PARASITICIDES|COOPERS SYSTAMEX ANTHELMINTIC DRENCH FOR CATTLE ORAL|OXFENDAZOLE  
49665|PARASITICIDES|DECTOMAX POUR-ON ENDECTOCIDE|DORAMECTIN  
49667|PARASITICIDES|BOMATAK POUR-ON WORMER FOR CATTLE|OXFENDAZOLE  
49703|PARASITICIDES|GENESIS INJECTION ABAMECTIN ANTIPARASITIC FOR CATTLE & SHEEP|ABAMECTIN  
49876|PARASITICIDES|NUCIDOL 200 EC INSECTICIDE AND ACARICIDE|DIAZINON / HYDROCARBON LIQUID  
49917|PARASITICIDES|PARAMECTIN INJECTION FOR CATTLE|ABAMECTIN  
50321|PARASITICIDES|VIRBAC FENCARE 25 ANTHELMINTIC FOR SHEEP AND CATTLE|FENBENDAZOLE  
50341|PARASITICIDES|PARAMECTIN POUR-ON FOR CATTLE|ABAMECTIN / DIETHYLENE GLYCOL MONOBUTYL  
ETHER  
50453|PARASITICIDES|ABACARE POUR-ON ENDECTOCIDE FOR CATTLE|ABAMECTIN  
50558|PARASITICIDES|COOPERS PARAMAX POUR-ON FOR BEEF AND DAIRY CATTLE|IVERMECTIN  
50781|PARASITICIDES|ELANCO AH0487 DEMIZE POUR-ON FOR CATTLE|ZETA-CYPERMETHRIN  
50807|PARASITICIDES|BOVICARE POUR ON LOUSE TREATMENT FOR BEEF AND DAIRY CATTLE|BENDIOCARB  
50972|PARASITICIDES|GENESIS INJECTION IVERMECTIN ANTIPARASITIC FOR CATTLE|IVERMECTIN  
50974|PARASITICIDES|GENESIS POUR-ON IVERMECTIN ENDECTOCIDE FOR CATTLE|IVERMECTIN  
51138|PARASITICIDES|IVERMECTIN BAYMEK POUR-ON FOR CATTLE|IVERMECTIN  
51149|PARASITICIDES|TICKOFF WP CATTLE TICKICIDE|AMITRAZ  
51262|PARASITICIDES|FASINEX 240 ORAL FLUKICIDE FOR CATTLE|TRICLABENDAZOLE  
51265|PARASITICIDES|NOROMECTIN POUR-ON FOR CATTLE|IVERMECTIN  
51308|PARASITICIDES|FLUKARE C FLUKICIDE FOR CATTLE AND SHEEP|TRICLABENDAZOLE  
51309|PARASITICIDES|FLUKARE S FLUKICIDE FOR SHEEP, CATTLE AND GOATS|TRICLABENDAZOLE  
51436|PARASITICIDES|LEVIPOR POUR-ON ANTHELMINTIC FOR CATTLE|LEVAMISOLE (AS LEVAMISOLE BASE)  
51441|PARASITICIDES|RYCOZOLE ORAL ANTHELMINTIC FOR SHEEP AND CATTLE|LEVAMISOLE AS LEVAMISOLE  
HYDROCHLORIDE  
51466|PARASITICIDES|OXAZOLE LV WORMING DRENCH FOR SHEEP, CATTLE AND GOATS|OXFENDAZOLE  
51524|PARASITICIDES|Y-TEX WARRIOR INSECTICIDAL CATTLE EAR TAGS|CHLORPYRIFOS / DIAZINON  
51550|PARASITICIDES|NOROMECTIN INJECTABLE FOR CATTLE|IVERMECTIN  
51817|PARASITICIDES|VETMEK ANTIPARASITIC CATTLE INJECTION|ABAMECTIN  
52185|PARASITICIDES|FASINEX 100 ORAL FLUKICIDE FOR SHEEP, CATTLE AND GOATS|TRICLABENDAZOLE  
52274|PARASITICIDES|TROY REPEL-X INSECTICIDAL AND REPELLENT SPRAY|CITRONELLA OIL /  
DI-N-PROPYL ISOCINCHOMERONATE / DIETHYLTOLUAMIDE / N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE /  
PIPERONYL BUTOXIDE / PYRETHRINS  
52406|PARASITICIDES|FASIMEK CATTLE ORAL FLUKICIDE AND BROAD SPECTRUM DRENCH|IVERMECTIN /  
TRICLABENDAZOLE  
52463|PARASITICIDES|TREMACE 120 FLUKICIDE FOR CATTLE AND SHEEP|TRICLABENDAZOLE  
52513|PARASITICIDES|PARAFEND LV OXFENDAZOLE DRENCH 90.6 G/L|OXFENDAZOLE  
52528|PARASITICIDES|ECOMECTIN ANTIPARASITIC INJECTION FOR CATTLE|IVERMECTIN  
52711|PARASITICIDES|ECOMECTIN CATTLE POUR-ON|IVERMECTIN  
52865|PARASITICIDES|FASICARE 120 FLUKICIDE FOR CATTLE AND SHEEP|TRICLABENDAZOLE  
52899|PARASITICIDES|FLUKAZOLE C COMBINATION FLUKE AND ROUNDWORM DRENCH FOR  
CATTLE|OXFENDAZOLE / TRICLABENDAZOLE  
52995|PARASITICIDES|CYPAFLY BUFFALO FLY SPRAY|CYPERMETHRIN / HYDROCARBON LIQUID  
53112|PARASITICIDES|RYCOZOLE RV PLUS SELENIUM ORAL ANTHELMINTIC FOR SHEEP AND  
CATTLE|LEVAMISOLE AS LEVAMISOLE HYDROCHLORIDE / SELENIUM AS SODIUM SELENATE

parasites

53114|PARASITICIDES|RYCOZOLE RV ORAL ANTHELMINTIC FOR SHEEP AND CATTLE|LEVAMISOLE AS  
LEVAMISOLE HYDROCHLORIDE

53364|PARASITICIDES|VIRBAC DAIRYMEC IVERMECTIN POUR-ON FOR DRY AND LACTATING DAIRY  
CATTLE|IVERMECTIN

53493|PARASITICIDES|BOVAMAX CC BROAD SPECTRUM CATTLE DRENCH|ALBENDAZOLE

53549|PARASITICIDES|PARAMECTIN RV POUR-ON FOR CATTLE|ABAMECTIN / DIETHYLENE GLYCOL MONOBUTYL  
ETHER

53565|PARASITICIDES|LEVIMAX ORAL BROAD SPECTRUM ANTHELMINTIC DRENCH|LEVAMISOLE HYDROCHLORIDE

53573|PARASITICIDES|LEVIMAX LV ORAL BROAD SPECTRUM ANTHELMINTIC DRENCH|LEVAMISOLE  
HYDROCHLORIDE

53616|PARASITICIDES|TROY HOSS GLOSS MEDICATED SHAMPOO FOR DOGS, HORSES AND  
CATTLE|DICHLOROPHEN

53910|PARASITICIDES|PATRIOT INSECTICIDE EAR TAG FOR CATTLE|DIAZINON

53927|PARASITICIDES|ALTERNATE POUR-ON WORMER FOR CATTLE|OXFENDAZOLE

53939|PARASITICIDES|VIRBAC IVERMECTIN POUR-ON FOR BEEF AND DAIRY CATTLE|IVERMECTIN

54096|PARASITICIDES|COOPERS EASY-DOSE POUR-ON CATTLE LICE AND FLY TREATMENT|DELTAMETHRIN

54297|PARASITICIDES|WSD ABAMECTIN POUR-ON ENDECTOCIDE FOR CATTLE|ABAMECTIN

54350|PARASITICIDES|VIRBAC DIAZINON INSECTICIDAL CATTLE EAR TAGS|DIAZINON

54368|PARASITICIDES|4FARMERS LEVAMISOLE ORAL ANTHELMINTIC FOR SHEEP AND CATTLE|LEVAMISOLE  
HYDROCHLORIDE

54369|PARASITICIDES|4FARMERS FENBENDAZOLE ORAL ANTHELMINTIC FOR SHEEP, GOATS AND  
CATTLE|FENBENDAZOLE

54423|PARASITICIDES|VIRBAC VIRBAMAX POUR-ON FOR BEEF AND DAIRY CATTLE|IVERMECTIN

54479|PARASITICIDES|BOMATAK.C ANTHELMINTIC FOR DAIRY CATTLE, BEEF CATTLE &  
HORSES|OXFENDAZOLE

54880|PARASITICIDES|VIRBAC VIRBAMAX PLUS ANTIPARASITIC INJECTION FOR BEEF AND DAIRY  
CATTLE|CLORSULON / IVERMECTIN

55098|PARASITICIDES|ARREST EASY-DOSE POUR-ON CATTLE LICE AND FLY TREATMENT|DELTAMETHRIN

55308|PARASITICIDES|BOMBARD POUR-ON CATTLE LICE AND FLY TREATMENT|DELTAMETHRIN

55679|PARASITICIDES|VIRBAC DELTAMETHRIN POUR-ON CATTLE LICE AND FLY TREATMENT|DELTAMETHRIN

55690|PARASITICIDES|CLEAR LV ORAL ANTHELMINTIC FOR SHEEP AND CATTLE|LEVAMISOLE HYDROCHLORIDE

55699|PARASITICIDES|GENESIS ULTRA INJECTION BROAD SPECTRUM ANTIPARASITIC FOR BEEF  
CATTLE|CLORSULON / IVERMECTIN

55722|PARASITICIDES|TERMINATOR INSECTICIDE EAR TAG FOR CATTLE|DIAZINON

55727|PARASITICIDES|VIRBAC VIRBAMEC LA INJECTION ENDECTOCIDE FOR CATTLE|IVERMECTIN

55857|PARASITICIDES|ARREST FLY & TICK DIP & SPRAY FOR CATTLE|DELTAMETHRIN / ETHION /  
HYDROCARBON LIQUID

56165|PARASITICIDES|Y-TEX BRUTE POUR-ON FOR CATTLE|PERMETHRIN (25:75::CIS:TRANS)

56315|PARASITICIDES|GENESIS INJECTION ABAMECTIN PLUS VITAMIN B12 ANTIPARASITIC FOR CATTLE &  
SHEEP|ABAMECTIN / VITAMIN B12

56338|PARASITICIDES|WINTIX POUR-ON TICK DEVELOPMENT INHIBITOR|1-DODECYL-2-PYRROLIDINONE /  
1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON

56465|PARASITICIDES|GENESIS ULTRA POUR-ON ROUNDWORM, LIVER FLUKE & EXTERNAL PARASITICIDE FOR  
CATTLE|ABAMECTIN / TRICLABENDAZOLE

56725|PARASITICIDES|FLUKARE C PLUS SELENIUM FLUKICIDE FOR CATTLE, SHEEP AND GOATS|SELENIUM  
AS SODIUM SELENATE / TRICLABENDAZOLE

56736|PARASITICIDES|VIRBAC VIRBAMEC LV POUR-ON ENDECTOCIDE FOR CATTLE|IVERMECTIN

56753|PARASITICIDES|VIRBAC VIRBAMEC POUR-ON ENDECTOCIDE FOR CATTLE|ABAMECTIN

56755|PARASITICIDES|VIRBAC VIRBAMEC PLUS INJECTION ENDECTOCIDE & FLUKICIDE FOR  
CATTLE|CLORSULON / IVERMECTIN

56769|PARASITICIDES|NOROMECTIN ANTIPARASITIC INJECTION FOR CATTLE AND PIGS|IVERMECTIN

56789|PARASITICIDES|VIRBAC BEEFMEC POUR-ON ENDECTOCIDE FOR CATTLE|ABAMECTIN

56795|PARASITICIDES|SYKES BIG L POUR-ON|LEVAMISOLE (AS LEVAMISOLE BASE)

56846|PARASITICIDES|BOMECTIN ANTIPARASITIC INJECTION FOR CATTLE AND PIGS|IVERMECTIN

56891|PARASITICIDES|ELTIK POUR-ON TICK DEVELOPMENT INHIBITOR|1-DODECYL-2-PYRROLIDINONE /  
1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON

57798|PARASITICIDES|VETSENSE FLYGON INSECTICIDAL AND REPELLENT SPRAY|DI-N-PROPYL  
ISOCINCHOMERONATE / N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE / PIPERONYL BUTOXIDE / PYRETHRINS

57920|PARASITICIDES|Y-TEX PYTHON MAXIMA INSECTICIDAL CATTLE EAR TAGS|PIPERONYL BUTOXIDE /  
ZETA-CYPERMETHRIN

57950|PARASITICIDES|BAYTICOL POUR-ON LIVE EXPORT CLEARING TICKICIDE|FLUMETHRIN

58015|PARASITICIDES|FLUTIK POUR-ON TICK DEVELOPMENT INHIBITOR|1-DODECYL-2-PYRROLIDINONE /  
1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON

58231|PARASITICIDES|VETIMEC IVERMECTIN INJECTION FOR CATTLE|IVERMECTIN

58232|PARASITICIDES|VETIMEC IVERMECTIN POUR-ON FOR CATTLE|IVERMECTIN

58264|PARASITICIDES|VIRBAC COMBAT WHITE ANTHELMINTIC FOR SHEEP, CATTLE AND GOATS|OXFENDAZOLE

58265|PARASITICIDES|VIRBAC COMBAT CLEAR ORAL ANTHELMINTIC FOR SHEEP AND CATTLE|LEVAMISOLE  
HYDROCHLORIDE

58517|PARASITICIDES|YOUNG'S FLUTIK POUR-ON TICK DEVELOPMENT  
INHIBITOR|1-DODECYL-2-PYRROLIDINONE / 1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE /  
FLUAZURON

58529|PARASITICIDES|YOUNG'S TRICLA 120 FLUKICIDE FOR CATTLE AND SHEEP|TRICLABENDAZOLE

58560|PARASITICIDES|YOUNG'S TRICLAMEC CATTLE ORAL FLUKICIDE AND BROAD SPECTRUM

parasites

DRENCH|IVERMECTIN / TRICLABENDAZOLE  
58611|PARASITICIDES|COOPERS SOVEREIGN POUR-ON FLUKICIDE AND ANTHELMINTIC FOR  
CATTLE|IVERMECTIN / TRICLABENDAZOLE  
58641|PARASITICIDES|PHOENECTIN (IVERMECTIN) POUR-ON FOR CATTLE|IVERMECTIN  
58799|PARASITICIDES|OZTIK POUR-ON TICK INHIBITOR FOR CATTLE|1-DODECYL-2-PYRROLIDINONE /  
1-METHYL-2-PYRROLIDINONE / 1-OCTYL-2-PYRROLIDINONE / FLUAZURON  
58970|PARASITICIDES|ANFLUKE POUR-ON ROUNDWORM, LIVER FLUKE & EXTERNAL PARASITICIDE FOR  
CATTLE|ABAMECTIN / TRICLABENDAZOLE  
58971|PARASITICIDES|FASIMEC CATTLE POUR-ON FLUKICIDE AND BROAD SPECTRUM  
ANTHELMINTIC|ABAMECTIN / TRICLABENDAZOLE  
58978|PARASITICIDES|YOUNG'S TRICLAMEC CATTLE POUR-ON FLUKICIDE AND BROAD SPECTRUM  
ANTHELMINTIC|ABAMECTIN / TRICLABENDAZOLE  
58982|PARASITICIDES|YOUNG'S TRICLA 50 FLUKICIDE FOR SHEEP, CATTLE AND GOATS|TRICLABENDAZOLE  
58998|PARASITICIDES|DEFIANCE 'S' AEROSOL INSECTICIDAL FLYSTRIKE, MULES AND WOUND  
DRESSING|CHLORFENVINPHOS / CRESYLIC ACID / EUCALYPTUS OIL / HYDROCARBON LIQUID / NAPHTHALENE  
  
59344|PARASITICIDES|IMAX CD POUR-ON FOR CATTLE|IVERMECTIN  
59368|PARASITICIDES|VALUE PLUS FLY SPRAY|DI-N-PROPYL ISOCINCHOMERONATE / N-OCTYL  
BICYCLOHEPTENE DICARBOXIMIDE / PIPERONYL BUTOXIDE / PYRETHRINS  
59633|PARASITICIDES|ZENITH POUR-ON LICE DECIMATOR FOR CATTLE & SHEEP|DIFLUBENZURON /  
N-METHYL-2-PYRROLIDONE  
59900|PARASITICIDES|AUSMECTIN CATTLE POUR-ON|IVERMECTIN  
60116|PARASITICIDES|CYDECTIN LONG ACTING INJECTION FOR CATTLE|MOXIDECTIN  
60203|PARASITICIDES|BOVIMECTIN POUR-ON FOR CATTLE|IVERMECTIN  
60439|PARASITICIDES|RURAL WEST BOVIMEC CATTLE POUR-ON|IVERMECTIN  
60489|PARASITICIDES|EXIFLUKE ORAL FLUKICIDE FOR SHEEP, CATTLE AND GOATS|TRICLABENDAZOLE  
60494|PARASITICIDES|ACATAK DUOSTAR TICK DEVELOPMENT INHIBITOR AND BROAD SPECTRUM  
POUR-ON|FLUAZURON / IVERMECTIN  
60503|PARASITICIDES|VETMEC F BROAD SPECTRUM ANTIPARASITIC CATTLE INJECTION|CLORSULON /  
IVERMECTIN  
60617|PARASITICIDES|WSD LV TRICLABENDAZOLE ORAL FLUKICIDE FOR SHEEP, CATTLE AND  
GOATS|TRICLABENDAZOLE  
60621|PARASITICIDES|CYLENCE ULTRA INSECTICIDE CATTLE EAR TAG|BETACYFLUTHRIN / PIPERONYL  
BUTOXIDE  
60780|PARASITICIDES|BAYCOX CATTLE COCCIDIOCIDIC|TOLTRAZURIL  
60795|PARASITICIDES|NOROMECTIN PLUS BROADSPECTRUM ANTIPARASITIC INJECTION FOR  
CATTLE|CLORSULON / IVERMECTIN  
61262|PARASITICIDES|BOVIMECTIN PLUS INJECTION BROADSPECTRUM ANTIPARASITIC INJECTION FOR  
CATTLE|CLORSULON / IVERMECTIN  
61297|PARASITICIDES|VET'S CHOICE IVERMECTIN POUR ON FOR CATTLE|IVERMECTIN  
61351|PARASITICIDES|STAMPEDE POUR-ON LOUSICIDE FOR CATTLE & SHEEP|DIFLUBENZURON /  
N-METHYL-2-PYRROLIDONE  
61413|PARASITICIDES|DELTAFLY EASY-DOSE POUR-ON CATTLE LICE AND FLY TREATMENT|DELTAMETHRIN  
61414|PARASITICIDES|CATTLEMAX POUR-ON FOR BEEF AND DAIRY CATTLE|IVERMECTIN  
61790|PARASITICIDES|WSD ENDOMEK ABAMECTIN POUR ON FOR DAIRY AND BEEF CATTLE|ABAMECTIN  
61813|PARASITICIDES|VETMEC POUR-ON FOR CATTLE|IVERMECTIN  
62048|PARASITICIDES|BOMECTIN POUR-ON FOR CATTLE|IVERMECTIN  
62353|PARASITICIDES|COOPERS DIAZINON SHEEP BLOWFLY DRESSING AND CATTLE, GOAT AND PIG  
SPRAY|DIAZINON / HYDROCARBON LIQUID

10) Appendix 4 – Statutory declaration of investigator



# Statutory Declaration

## (INVESTIGATOR AND REPORT PREPARER)

Address of Site Investigated: Cobaki Lakes, Cobaki NSW

Real Property Description: Lots 228 & 305 DP755740  
Lot 1 DP56222  
Lot 1 DP570077

Title of Report: Stage 1 Preliminary Site Contamination  
Assessment Cobaki Lakes Concept Plan  
May 2008.

I, Neil Sutherland, of Gilbert and Sutherland Pty Ltd, PO Box 857 Robina Q4226, in the State of Queensland, do solemnly and sincerely declare that;

I was the investigator of the report described above;

- I am a member of the Environment Institute of Australia and my qualifications and experience as outlined in my Curriculum Vitae (attached) are relevant to this investigation;
- I have not knowingly included any false, misleading or incomplete information in the report;
- I have not knowingly failed to reveal any relevant information or document to any administering authority; and

I certify that:

- The report addresses the relevant matters for the investigation and is factually correct; and
- The opinions expressed in it are honestly and reasonably held.

And I make this solemn declaration conscientiously believing the same to be true and by the virtue of the provisions of the Oaths Act 1867.

Signature 

Name: NEIL SUTHERLAND

Taken and Declared before me at Robina this 15<sup>th</sup> day of May 19 2008

Witness (~~Justice of the Peace/Commissioner for Declarations~~)

