

DUE DILIGENCE ENVIRONMENTAL REPORT

10 STACK STREET FREMANTLE, WA

Prepared for:

KEVALEX NOMINEES



JOB NO: 08.054

REPORT NO: RP001



Australia

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Prepared for:

KEVALEX NOMINEES

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1. INTRODUCTION.....	4
1.1 BACKGROUND.....	4
1.2 SCOPE OF WORK.....	4
1.3 SITE IDENTIFICATION	5
2. POTENTIAL CONTAMINATION SOURCES.....	6
2.1 HISTORICAL LAND TITLE SEARCH.....	6
2.2 HISTORICAL AERIAL PHOTOGRAPHS.....	6
2.3 CURRENT AND HISTORICAL PLANS AND RECORDS	7
2.4 GOVERNMENT DATABASE SEARCH.....	7
2.5 PREVIOUS ENVIRONMENTAL INVESTIGATIONS	8
2.6 INTERVIEWS	8
2.7 SITE WALKOVER	10
3. POTENTIAL EXPOSURE PATHWAYS AND FACTORS CONTROLLING CHEMICAL MIGRATION.....	12
3.1 CURRENT TOPOGRAPHY AND STORMWATER	12
3.2 REGIONAL GEOLOGY	12
3.3 LOCAL HYDROGEOLOGY	13
3.4 GROUNDWATER BORES	13
3.5 ACID SULPHATE SOILS.....	14
3.6 TRENCHES, BARRIERS AND CONDUITS	14
4. POTENTIAL RECEPTORS	15
4.1 DEVELOPMENT ON 10 STACK STREET	15

4.2	SURROUNDING LAND USE.....	15
4.3	SENSITIVE RECEPTORS.....	15
5.	SAMPLING/ANALYSIS PROGRAM	16
5.1	AREAS OF ENVIRONMENTAL INTEREST	16
5.2	GROUNDWATER ASSESSMENT	17
5.3	CHOICE OF ANALYTES AND TEST PROCEDURES	17
5.4	GROUNDWATER SAMPLING METHODOLOGY	18
5.5	RESULTS	18
5.5.1	Groundwater Samples.....	18
5.6	QA/QC PROGRAM	19
6.	DISCUSSION AND CONCLUSIONS	20
7.	SUMMARY AND RECOMMENDATIONS	22
8.	REFERENCES.....	23

FIGURES

FIGURE 1	SITE LOCATION
FIGURE 2	SITE LAYOUT AND POTENTIAL ON-SITE CONTAMINATION SOURCES
FIGURE 3	CONTAMINATED SITES DATABASE MAP
FIGURE 4	SURROUNDING LAND USES
FIGURE 5	CONCEPTUAL SITE MODEL
FIGURE 6	GROUNDWATER WELL LOCATIONS AND EXCEEDENCES

TABLES

TABLE 1	POTENTIAL CONTAMINATION SOURCES – ON SITE
TABLE 2	POTENTIAL CONTAMINATION SOURCES – OFF SITE
TABLE 3	GROUNDWATER ANALYTICAL RESULTS

APPENDICES

APPENDIX A	CERTIFICATES OF TITLE
APPENDIX B	HISTORICAL AERIAL PHOTOGRAPHS
APPENDIX C	GOVERNMENT DATABASE SEARCH
APPENDIX D	SITE PHOTOS
APPENDIX E	QA/QC AND GROUNDWATER SAMPLING METHODOLOGY
APPENDIX F	PERSONAL COMMUNICATIONS

STATEMENT OF LIMITATIONS

Scope of Services

This environmental site assessment report (“the report”) has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and ENV.Australia Pty Ltd (ENV) (“scope of services”). In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

Reliance on Data

In preparing the report, ENV has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations, most of which are referred to in the report (“the data”). Except as otherwise stated in the report, ENV has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report (“conclusions”) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. ENV will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to ENV.

Environmental Conclusions

In accordance with the scope of services, ENV has relied upon the data and has conducted environmental field monitoring and/or testing in the preparation of the report. The nature and extent of monitoring and/or testing conducted is described in the report.

On all sites, varying degrees of non-uniformity of the vertical and horizontal soil or groundwater conditions are encountered. Hence no monitoring, common testing or sampling technique can eliminate the possibility that monitoring or testing results/samples are not totally representative of soil and/or groundwater conditions encountered. The conclusions are based upon the data and the environmental field monitoring and/or testing and are therefore merely indicative of the environmental condition of the site at the time of preparing the report, including the presence or otherwise of contaminants or emissions. Also it should be recognised that site conditions, including the extent and concentration of contaminants, can change with time.

Within the limitations imposed by the scope of services, the monitoring, testing, sampling and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.

Report for Benefit of Client

The report has been prepared for the benefit of the Client and no other party. ENV assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of ENV or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

Other Limitations

ENV will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.

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1. INTRODUCTION

1.1 BACKGROUND

The owner of 10 Stack Street Fremantle, Kevalox Nominees, plans to sell the property. Ches Diesel and Marine Services, a motor repair business has been operating at this location for over 35 years. The purchaser is concerned on the financial risks of environmental contamination of the groundwater and the soil from the past uses of the site. ENV was commissioned by Kevalox Nominees to undertake an environmental due diligence study of the site.

The scope of investigations performed by ENV was not intended to be comprehensive or compliant to the DEC Contaminated Sites Management Series. However, the focused investigations were designed to characterise potential gross contamination residues that may have a financial impact on the value of the property.

It is assumed that the property will continue in its current land uses subsequent to purchase.

1.2 SCOPE OF WORK

Based on email authorisation from Ralph Ross dated 23 January 2008, ENV undertook the following:

- Site walkover/inspection and discussions with people with past and present knowledge of the site
- Review of readily available documents (certificates of title, historical aerial photographs, public agency database searches) related to historic hazardous material usage on the site.
- Installation of groundwater monitoring wells (up to 3) with a moderate analytical testing program.
- Brief property environmental (contamination) due diligence report.

1.3 SITE IDENTIFICATION

As shown in Figure 1, 10 Stack Street is located approximately 14km south west of the Perth CBD.

The identification details for the subject land, are included in the table below.

Property	10 Stack Street, Fremantle (Lot 1219)
Local Government Authority	City of Fremantle
Metropolitan Region Scheme Zoning	Urban
Local Government Authority Zoning	Development
Site NW Corner GDA 94 Co-ordinates	Z: 50 N: 6452771 E: 383286
Site SE Corner GDA 94 Co-ordinates	Z: 50 N: 6452781 E: 383308
Site Area	1474m ²

EXECUTIVE SUMMARY

The owner of 10 Stack Street Fremantle, Kevallex Nominees, plans to sell the property. Ches Diesel and Marine Services, a motor repair business has been operating at this location for over 35 years. The purchaser is concerned on the financial risks of environmental contamination of the groundwater and the soil from the past uses of the site. ENV was commissioned by Kevallex Nominees to undertake an environmental due diligence study of the site.

The scope of investigations performed by ENV was not intended to be comprehensive or compliant to the DEC Contaminated Sites Management Series. However, the focused investigations were designed to characterise potential gross contamination residues that may have a financial impact on the value of the property.

It is assumed that the property will continue in its current land uses subsequent to purchase.

Based on email authorisation from Ralph Ross dated 23 January 2008, ENV undertook the following:

- Site walkover/inspection and discussions with people with past and present knowledge of the site
- Review of readily available documents (certificates of title, historical aerial photographs, public agency database searches) related to historic hazardous material usage on the site.
- Installation of groundwater monitoring wells (up to 3) with a moderate analytical testing program.
- Brief property environmental (contamination) due diligence report.

Discussion and Conclusions

From an interview with the current owner of the site it was established that a UST, formerly used for petrol, is located beneath a more recent extension to the workshop on the site. No dangerous goods (DOCEP) license was located for the site. Decommissioning of this former UST is not indicated.

Septic (sewer) tanks located in several areas on the property may have led to contamination of the groundwater.

The sump located in the north-west corner of the site is a possible groundwater contamination source.

Soil sampling was not conducted on the site as limestone was shallow below the ground surface (approx. 0.2m bgl).

Given the activities (engine repairs) identified for the property over the last 50 years, and the porous nature of limestone, groundwater contamination is of greater potential concern.

Groundwater analytical results from three monitoring wells indicate that:

- Groundwater (MW2) from an up hydraulic gradient direction (east) is not contaminated.
- Groundwater (MW1) directly down hydraulic gradient is also not contaminated.
- Groundwater (MW3) directly down hydraulic gradient of the drainage sump has a level of hexavalent chromium that exceeds the DEC MWG and DWG.

Groundwater contamination exceeding investigation levels was only identified down gradient of the north west corner of the site. No contamination was identified in the monitoring wells in the middle of the western and eastern boundaries of the property. It is likely that groundwater contamination, if present onsite is restricted to the northern end of the property.

It is not certain as to whether contamination identified in groundwater collected from MW3 originated from the sump (east) or from the property (Lots 1211 and 1218 Wood Street) adjacent to the north.

Based on the use of the site (10 Stack St) for almost 50 years for motor repairs it is possible that the contamination identified in MW3 is a result. Hexavalent chromium is a chemical associated with high temperature welding which is common practice in motor repair workshops. The work shop drains lead to separator tanks and then into the sump. The sump receives the denser phase of liquids from settling tanks within the washdown area of the workshop. While the majority of hydrocarbons may be separated from this liquid, other contaminants such as solvents (VOCs) and heavy metals may remain in the denser phase of liquid. Hexavalent chromium identified in MW3 may be from this source.

However, from interviews conducted with the current owner of 10 Stack St and personal communications with Pam Hartree, a local history librarian from the Fremantle City Library, it has been established that Lots 1211 & 1218 Wood Street to the north of the subject property were a former foundry. It is believed that the southern side of Lot 1218 was built up with 44 gallon drums filled with foundry slag.

It is a possibility that the hexavalent chromium identified in groundwater collected from MW3 has originated partially or wholly from this offsite source.

It is anecdotally reported that groundwater contamination has in the past been identified an up-hydraulic gradient site (14 Stack St). ENV is advised that the site, a former casting supplies business has since been remediated. It is unlikely that this site

is the source of hexavalent chromium identified in MW3 as hexavalent chromium would also be expected to be identified in MW2, closer to 14 Stack St.

Solvents (bromodichloromethane, dibromochloromethane and bromoform) were identified at concentrations below investigation levels. However, these chemicals are Dense Non Aqueous Phase Liquids (DNAPL) and will sink below groundwater. Groundwater sampling targeted the liquid close to the upper groundwater table and therefore may have not identified higher concentrations of solvents deeper in the groundwater aquifer.

Based on the investigations reported herein, an approximate range of costs to ascertain the chemical impact indicated from this work is estimated at between \$70,000 and \$140,000.

Summary and Recommendations

ENV conducted an environmental due diligence to assist the property owner and the purchaser to understand the potential environmental (contamination) liabilities that may effect the subsurface of the property.

Soil contamination may be present but is considered minor due to the shallow nature of soil on the site.

Further groundwater investigations are recommended to determine whether the contamination identified is from an onsite or an offsite source. This would involve installation of additional monitoring wells to delineate the area of groundwater contamination.

ENV notes that this due diligence investigation was conducted under the assumption that the property would remain under its current land use. If redevelopment of the site was to proceed, remediation of soil and removal of UST on the property would to be required. Upon removal of septic tanks, remediation may also be required.

Based on the investigations reported herein, an approximate range of costs to ascertain the chemical impact indicated from this work is estimated at between \$70,000 and \$140,000. Remediation and auditor costs are not included in this should they be required.

ENV recommends that a Form 1 "Report of a known or suspected contaminated site" is lodged with DEC. We are able to assist with this.

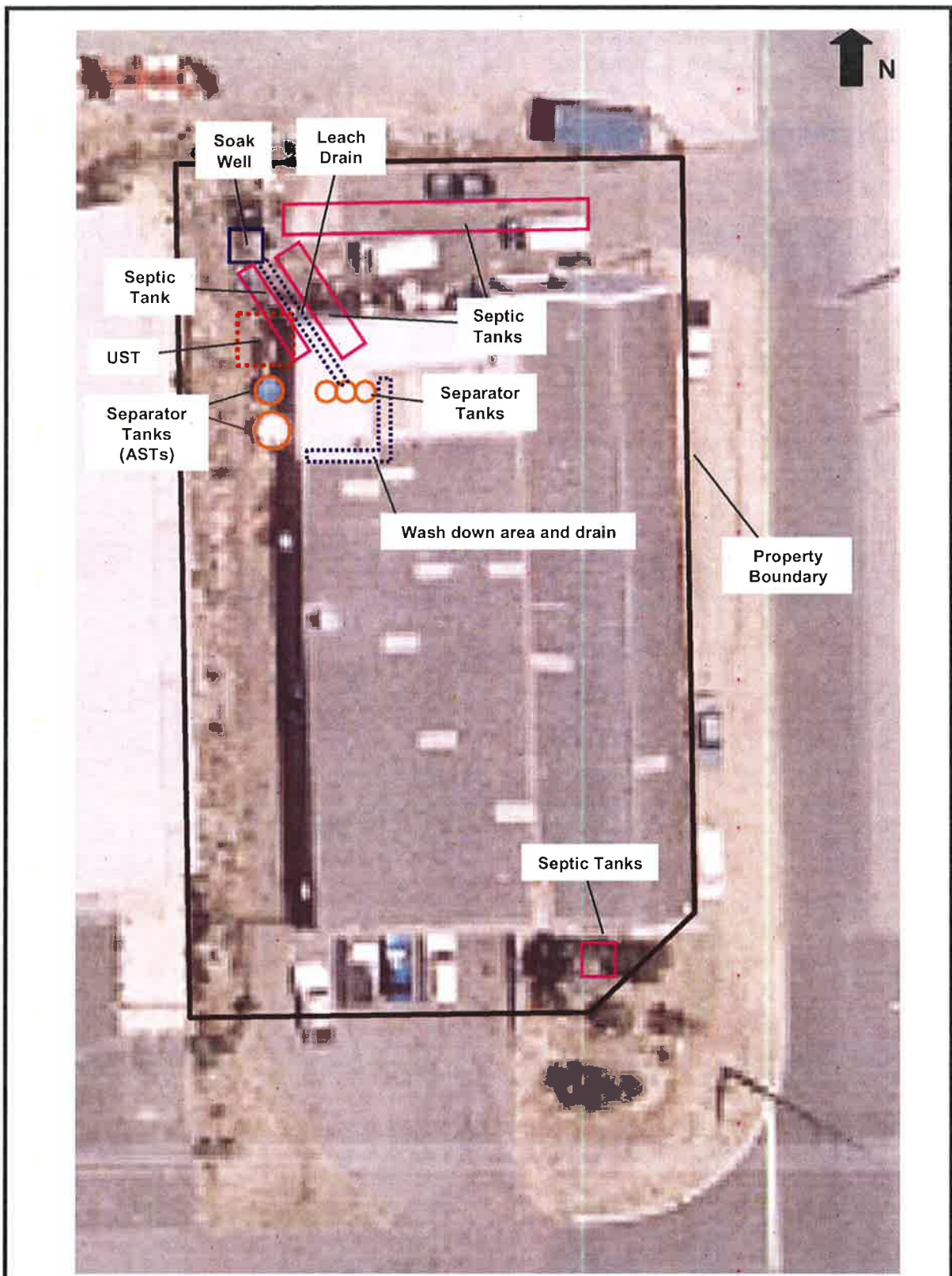


FIGURE 2 : SITE LAYOUT, 10 STACK STREET FREMANTLE

CLIENT: KEVALEX NOMINEES

JOB NUMBER: 08.054

SCALE: NTS

DRAWN BY: MR

CHECKED BY: MC

DATE: 14/04/2008



2. POTENTIAL CONTAMINATION SOURCES

Current and historic land uses/activities both on- and off-site and potential contamination sources are detailed in Tables 1 and 2, respectively. The tables also detail the specific areas of environmental interest and the associated potential common contaminants.

The current aerial photograph and layout of the site are shown in Figure 2. Potential on-site contamination sources are shown in Figure 3.

The surrounding land uses and potential off-site contamination sources are shown in Figure 4.

The data in the tables and figures was provided by the methods described in the subsection below.

2.1 HISTORICAL LAND TITLE SEARCH

Lot boundaries are shown in Figure 2. Historical certificates of title are included in Appendix A. Historical property titles were provided by Landgate, the former Department of Land Information. A summary of historical title details is outlined in the table below.

Certificate of Title Volume and Folio	Landholder Name (s)	Dates of Ownership
1161/462	City of Fremantle	12/01/1953
1156/952	Burns and Philp & Company Ltd	15/04/1953
1187/238	Lindsay Hudson Brown	25/11/1955
1187/238	Gills Transport Service	1/07/1969
1187/238	J.B.D Pty Ltd	24/12/1975
1187/238	Kevallex Nominees Pty Ltd	10/5/1977

2.2 HISTORICAL AERIAL PHOTOGRAPHS

Historical aerial photographs from 1948, 1999 and 2007 are included in Appendix B. The Aerial photographs were sourced from Landgate.

A summary of observations of the historical aerial photographs is included in Table 1.

2.3 CURRENT AND HISTORICAL PLANS AND RECORDS

Current infrastructure is shown in Figure 2.

Current plans were provided by:

- Landgate – Aerial Photograph 2007.
- Site Walkover, February 2008.

2.4 GOVERNMENT DATABASE SEARCH

DEC Contaminated Sites Database

The Contaminated Sites Act 2003 (WA) came into force on 1 December 2006. When sites are reported to the DEC, one of seven possible classifications is assigned by the DEC under the act. The DEC can allocate any one of seven possible classifications to a site. The DEC website (available at www.dec.wa.gov.au/contaminatedsites) includes information on sites classified as 'Contaminated – Remediation Required', 'Contaminated – Restricted Use' and 'Remediated for Restricted Use'.

The site is not classified by the DEC. There are however 30 sites, located within 1km of the site boundary that are classified by the DEC. The locations of these sites is shown in Figure 3. Twenty four of the sites are classified as 'Contaminated – Remediation Required' and 6 are classified as 'Remediated for Restricted Use'.

As all of these sites are all located down hydraulic gradient from the study site it is not expected that any contamination from these sites pose any significant impact.

DEC Summary of Records in Respect of Land

A basic summary of records was requested from the DEC for the site regarding known or suspected contaminated sites. This request identified no records of the site (Appendix C).

DEC Freedom of Information Application

A request for access to documents concerning the site (such as product spill and loss history, complaint history, discharges to land, water and air and relevant complaint history) identified no documents (Appendix C).

DoW WIN Database for Bores

The Department of Water (DoW) Water Information Network (WIN) database lists registered groundwater bores. A search of bores within 1km of the site identified 8 bores, of which none are located within the site. Locations and information on the groundwater bores is presented in Appendix C. The information is discussed later in this report.

DOCEP Dangerous Goods Storage Licence Documents

The Department of Consumer and Employment Protection (DoCEP) database for fuel storage lists all current and historical licences to store fuel, including those for above-ground fuel storage tanks (ASTs) and underground storage tanks (USTs), in WA since the 1970s.

D Marenko of DoCEP advised that no Dangerous Goods Storage Licences has been issued for the site (D. Marenko *pers.comm* via Letter 17 March 2008 – Appendix C).

2.5 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

No previous formal environmental investigations for the property were identified. However, from interviews with the owner of the study site it is believed that groundwater contamination has in the past been identified up-hydraulic gradient of the site (14 Stack St). It is understood the site, a former casting supplies business has since been remediated.

2.6 INTERVIEWS

An interview was conducted with Ralph Reid, director and owner of Ches Diesel & Marine Services on 12 February 2008.

The building currently existing on the site was built in the mid 1950s and was initially used as a warehouse.

A motor repair workshop operated on the site from c.1960 to c.1970.

A disused underground storage tank (UST) used for petrol was installed in this period and remains as indicated on Figure 2.

Ches Diesel & Marine Services have been on the site since c.1970 and are still in operation. The business reconditions engines and also supplies diesel and marine parts.

An extension was added to the north west of the building. The extension built over the UST. The extension is of metal construction.

Mr Reid believed that septic tanks, no longer in operation are in the south west corner of the site and also to the rear of the building running east-west in the centre of the driveway as indicated in Figure 2.

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Three subfloor settling tanks are located within the building. These tanks capture water, solvents, hydrocarbons etc. The lighter phase, likely to contain hydrocarbons, is separated and pumped into separator tanks on the exterior of the building. The heavier phase runs through leach drains into a sump in the north western corner of the site.

It was reported that these separator tanks are pumped by a licensed waste contractor (when full) and the contents are taken of site to an appropriate waste facility.

Mr Reid believed that a property to the east (and upgradient) of the site, 14 Stack St (Lot 2) had been remediated several years ago. He believed that the property had been a foundry or foundry-related business, Casting Supplies Pty Ltd, and that investigations had identified chromium in the groundwater. He believed that the site had been remediated with soil being excavated up to several meters depth.

Mr Reid understood that the property adjacent to the north of the site, 45-47 Wood St (Lots 1211 & 1218), currently operated by McLennan's Haulage was formerly an old foundry operated by Vaughan Castings. He believed that the property was 'filled' using 44 gallon oil drums (filled with slag material from the foundry) to a height of approximately 4m above natural surface level on the southern side of the property.

Additionally Pam Hartree, a Local History Librarian from the Fremantle City Library was contacted via email in relation to information on records/reports completed regarding contamination of surrounding sites.

These personal communications are available in Appendix F and relevant information from these emails is presented in Table 2.

2.7 SITE WALKOVER

A site walkover was completed by an environmental scientist on 12 February 2008. All current infrastructure and features were noted (Table 1).

A workshop building takes up the majority of the site.

The building is of brick and metal construction with suspected ACM (asbestos containing material) sheet roofing. The building is on a concrete floor that appears to be in good condition with minimal staining and no major corrosion visible.

An extension was added to the north west of the building. The extension built over the UST. The extension is of metal construction with a concrete floor.

An office is in the south east of the building. The remainder of the building is a workshop.

The area rear to the building (north) is a bitumen driveway. A bitumen car park exists at the front of the building (south). The ground on the west of the site is covered in bitumen between the building and the limestone exposure.

A washdown area in the north west of the building is separated by drains in the floor. In this area engine degreasing solvents are used. The drains direct water, solvents, hydrocarbons etc into three settling tanks. The lighter phase is separated and pumped into separator tanks on the exterior of the building. The denser phase runs through leach drains to a sump in the north western corner of the site.

Two separator tanks are located on the western side of the site. When these tanks fill, they are pumped and the contents are taken of site to an appropriate waste facility.

The leach drain runs south-east to north-west into a sump in the north western corner of the site.

Chemicals are stored in an unbunded area in the more recent extension area. Some evidence of staining was present.

Apart from a garden area at the front of the building and the exposed limestone to the east of the site, remaining areas are covered in bitumen.

Septic tanks are believed to be in the south west corner of the site.

Septic tanks are also believed to be running east-west in the centre of the driveway to the rear of the building.

This report was not intended to record and recommend hazard materials management issues. The site walkover was designed to highlight areas of obvious gross environmental concern from past or present activities that may affect future ownership of the property.

TABLE 1: POTENTIAL CONTAMINATION SOURCES – ON SITE

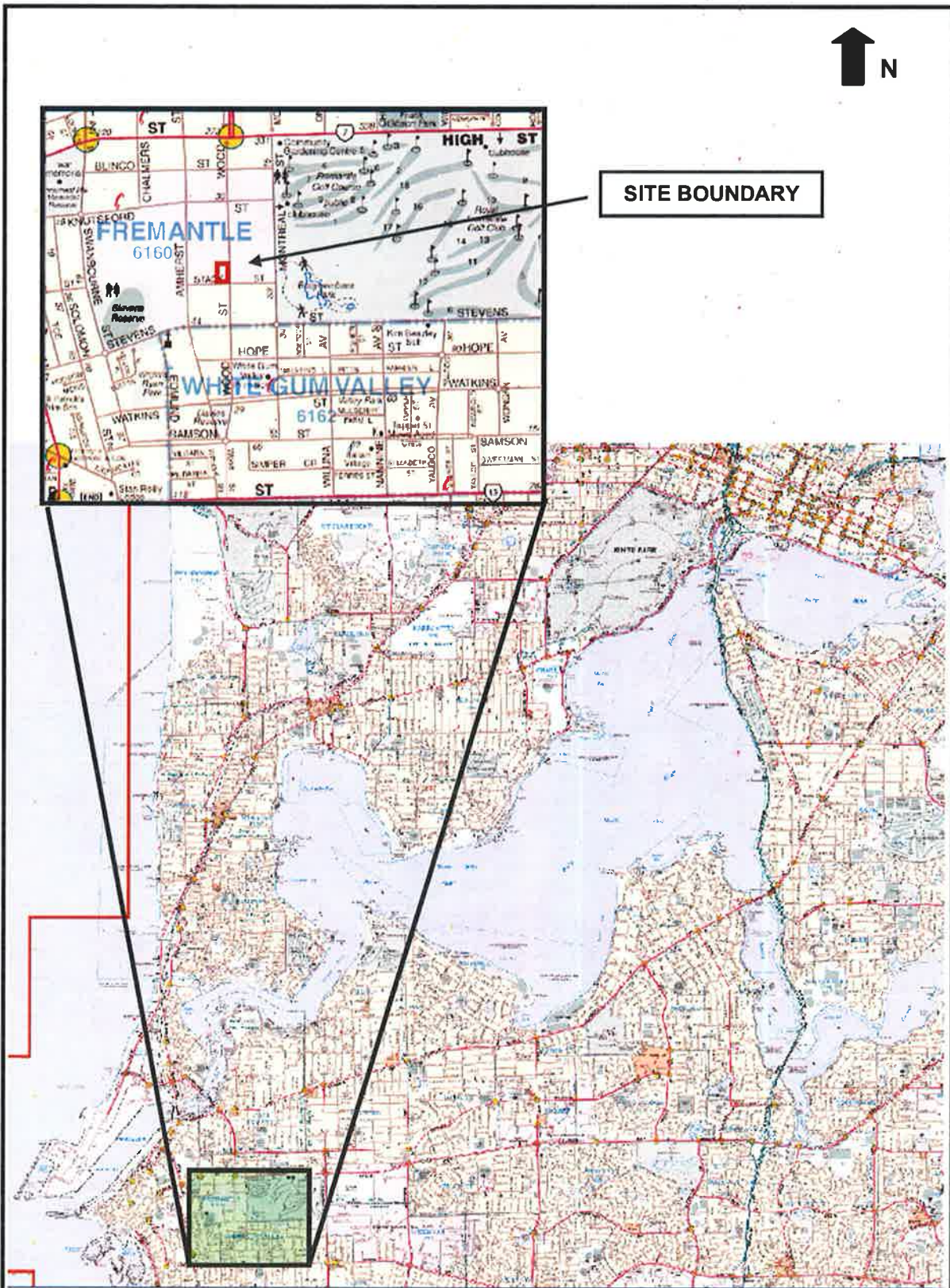
DATE	DATA PROVIDER	LAND USE OR ACTIVITY	AREAS OF ENVIRONMENTAL CONCERN	POTENTIAL CONTAMINANTS
February 2008	Site Walkover + Interview	Workshop building Septic tanks buried in land near the south west corner and the northern edge of the lot UST (petrol) buried in the north west of the lot Separator/Settling Tanks Internal Drains External Drains Soak Well Existing ground water monitoring well Car park Bitumen paving Air Compressor Garden area in the southern edge of the lot Exposed limestone outcrop running the length of the eastern side of the lot.	Construction Materials Septic tanks Motor vehicle workshop Automotive repair, engine works and spray painting Disused UST (formerly used for petrol) Unbundled chemical storage Separator tanks Internal/External Drains/Sumps	Asbestos Pathogens, Total petroleum hydrocarbons, Monocyclic aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene & xylene), Solvents (VOCs), Resin, PAHs, Phenol, Chlorofluorocarbons, Metals (e.g. copper, chromium, lead, zinc), Alkalis, Acids (e.g. sulphuric, phosphoric)

TABLE 1: POTENTIAL CONTAMINATION SOURCES – ON SITE

DATE	DATA PROVIDER	LAND USE OR ACTIVITY	AREAS OF ENVIRONMENTAL CONCERN	POTENTIAL CONTAMINANTS
1948	Aerial photograph	Cleared, undeveloped land	None	None
c. 1955	Interview	Warehouse building, unknown storage	Construction Materials	Asbestos
c.1960-1970	Interview	Warehouse building used as a motor repair workshop, Septic tanks buried in land near the south west corner and the northern edge of the lot Disused UST (petrol) buried in the north west of the lot	Motor vehicle workshop Automotive repair, engine works and spray painting UST Septic Tanks	Total petroleum hydrocarbons, Monocyclic aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene & xylene), Solvents (VOCs), Resin, PAHs, Phenol, Chlorofluorocarbons, Metals (e.g. copper, chromium, lead, zinc), Alkalis, Acids (e.g. sulphuric, phosphoric, Pathogens, Asbestos
c.1970	Interview	Warehouse building still existing, used as a motor repair workshop. The current owner and business began operating at this time– engine reconditioning and diesel and marine part supplier	Chemical storage and Disposal Degreasing engine parts	
1999	Aerial photograph			
2007	Aerial photograph			

FIGURES

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SITE BOUNDARY

FIGURE 1 : SITE LOCATION 10 STACK STREET FREMANTLE

CLIENT: KEVALEX NOMINEES

JOB NUMBER: 08.054




SCALE: 1:80 000

DRAWN BY: MC

CHECKED BY: MR

DATE: 29/02/2008



	SITE BOUNDARY
	GROUNDWATER FLOW DIRECTION
	NEIGHBOURING CONTAMINATED SITES

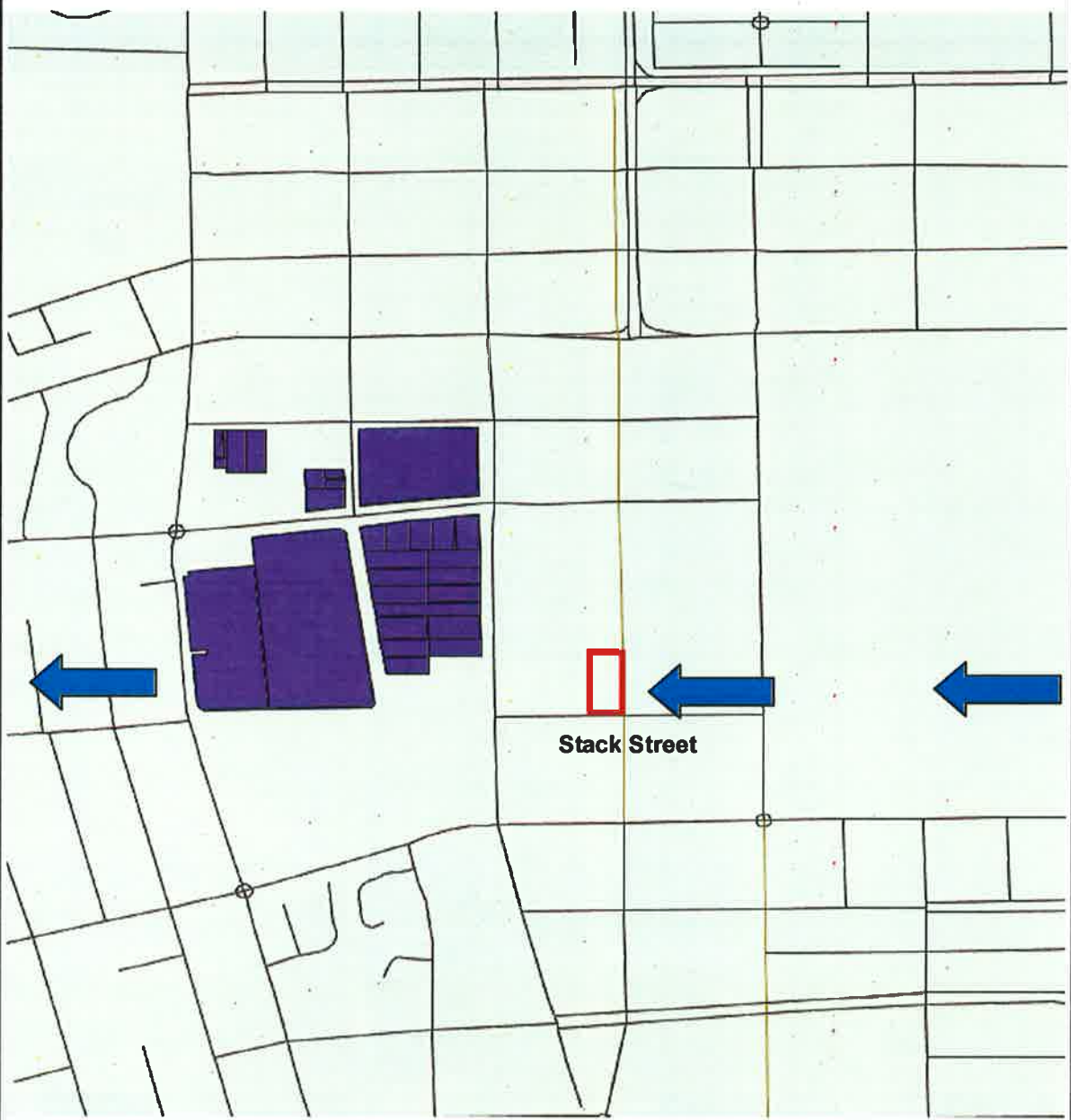


FIGURE 3 : CONTAMINATED SITES AND GROUNDWATER FLOW DIRECTION

CLIENT: KEVALEX NOMINEES

JOB NUMBER: 08.054

SCALE: 1: 7000 SOURCE: DEC (2007)

DRAWN BY: MC

CHECKED BY: MR

DATE: 29/02/2008






 SITE BOUNDARY

FIGURE 4 : SURROUNDING LAND USES

JOB NUMBER: 08.054

Drawn By: MC

CLIENT: CLIENT: KEVALEX NOMINEES

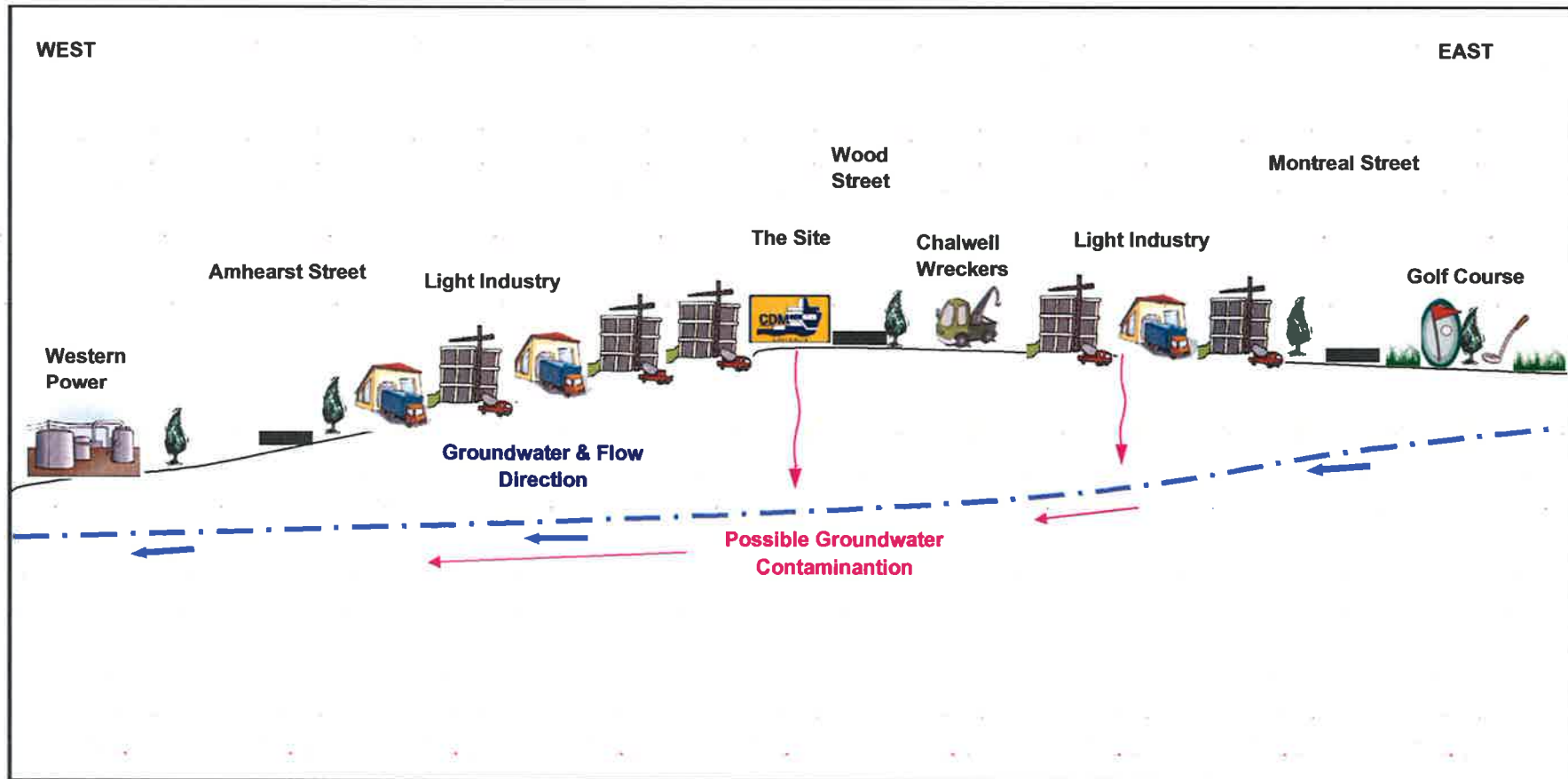
Checked By: MR

Project: 10 STACK STREET FREMANTLE DUE DILIGENCE REPORT

SCALE: ~ 1:2000

SOURCE: DLI (2007)






Client:	KEVALEX NOMINEES	JOB NO:	08.054	
Project:	10 STACK STREET FREMANTLE DUE DILLIGENCE	DRAWN BY:	MC	
FIGURE 5: CONCEPTUAL SITE MODEL (EAST-WEST)		CHECKED BY:	MR	
		SCALE:	Not to scale	



FIGURE 6 : MONITORING WELL LOCATIONS AND EXCEEDENCES

CLIENT: KEVALEX NOMINEES

JOB NUMBER: 08.054

SCALE: NTS

SOURCE: DLI

DRAWN BY: MC

CHECKED BY: MR

DATE: 29/02/2008



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TABLES



TABLE 2: POTENTIAL CONTAMINATION SOURCES – OFF SITE

Off-site landuses and activities can be a source of contamination that migrates onto a site. The most recognised pathway for contaminants to migrate onto a site is with groundwater and hence off-site potential contamination sources are divided into those located in the possible up hydraulic direction (East) and those located down hydraulic gradient (West) of the site.

POTENTIAL UP/DOWN HYDRAULIC GRADIENT OFF-SITE CONTAMINATION SOURCES

DATE	DATA PROVIDER	LAND USE OR ACTIVITY	AREAS OF ENVIRONMENTAL CONCERN	POTENTIAL CONTAMINANTS
1948	Aerial Photographs	Cleared, undeveloped land surrounding site	None	None
c.1960 – c.1984	Fremantle City Library, Local History Search	North – Beaufort premises (45 Wood Street)	(45 Wood Street) Motor vehicle workshop Automotive repair, engine works and spray painting	Total petroleum hydrocarbons, Monocyclic aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene & xylene), Solvents (VOCs), Resin, PAHs, Phenol, Chlorofluorocarbons, Metals (e.g. copper, chromium, lead, zinc), Alkalis, Acids (e.g. sulphuric, phosphoric)
c.1965 - 1976	Fremantle City Library, Local History Search	East - Gills Transport Service (16 Stack Street),	(16 Stack Street), Motor vehicle workshop	Metals (e.g. aluminium, barium, cadmium, copper, chromium, lead, nickel, tin, zinc), Acids (e.g. sulphuric, hydrochloric, nitric, phosphoric), Alkalis, Plating salts, Monocyclic aromatic hydrocarbons (e.g. benzene, toluene), Chlorinated hydrocarbons (e.g. 1,1,1 – trichloroethane, tetrachloroethylene), Cyanide, Solvents, Paint residue
c.1965-1987	Fremantle City Library, Local History Search	East - Factory premises established and used for chrome plating around c.1984 (14 Stack Street)	(14 Stack Street) Chrome Plating/ Metal treatment or coating/finishing and treatment	Metals (e.g. aluminium, barium, cadmium, copper, chromium, lead, nickel, tin, zinc), Acids (e.g. sulphuric, hydrochloric, nitric, phosphoric), Alkalis, Plating salts, Monocyclic aromatic hydrocarbons (e.g. benzene, toluene), Chlorinated hydrocarbons (e.g. 1,1,1 – trichloroethane, tetrachloroethylene), Cyanide, Solvents, Paint residue

TABLE 2: POTENTIAL CONTAMINATION SOURCES – OFF SITE

DATE	DATA PROVIDER	LAND USE OR ACTIVITY	AREAS OF ENVIRONMENTAL CONCERN	POTENTIAL CONTAMINANTS
c.1976 - c.2006	Fremantle City Library, Local History Search	East - Fremantle Radiator Repair Service (16 Stack Street)	(16 Stack Street) Radiator Repair/ Motor vehicle workshop Automotive repair, engine works and spray painting	• Total petroleum hydrocarbons, Monocyclic aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene & xylene), Solvents, Resin, PAHs, Phenol, Chlorofluorocarbons, Metals (e.g. copper, chromium, lead, zinc), Alkalis, Acids (e.g. sulphuric, phosphoric)
c.1984- <1990	Fremantle City Library, Local History Search	North - Factory Premises, Vaughnan Castings (45 Wood Street)	none	none
c. 1987- 1991	Fremantle City Library, Local History Search	East - Premises changes hands, unknown use. (14 Stack Street)		
c.1990	Fremantle City Library, Local History Search	North – Foundry Workshop (45 Wood Street)	(45 Wood Street) Foundry operation	Metals, particularly iron, aluminium, lead, zinc, copper, tin, nickel, chromium and oxides), chlorides, fluorides and sulphates of these, Acids, Coke (PAHs), Fuel oil
1999	Aerial Photographs	North – Light Industrial - McLennan's Haulage East – Light Industrial - Casting Supplies, Chalwell Wreckers South - Residential West – Boating Storage WA, Further West – Western Power	Motor vehicle workshops Automotive repair, engine works and spray painting	Total petroleum hydrocarbons, Monocyclic aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene & xylene), Solvents (VOCs), Resin, PAHs, Phenol, Chlorofluorocarbons, Metals (e.g. copper, chromium, lead, zinc), Alkalis, Acids (e.g. sulphuric, phosphoric)
2007	Aerial Photographs	North – Light Industrial - McLennan's Haulage East – Light Industrial - Casting Supplies, Chalwell Wreckers South - Light Industrial - Residential West – Boating Storage WA, Further West – Western Power		

TABLE 3
GROUNDWATER ANALYTICAL RESULTS

Sample Identification and Depth (m)		Marine Waters Guideline (MWG) [mg/L]	Drinking Water Guideline (DWG) [mg/L]	Irrigation Water Guideline - Longterm Trigger Value [WGLTV] [mg/L]	MW1	MW2	MW3	DUP1	RPD (%)
Date	223532				223532	223532	223532		
Lab Report #					13/03/2008	13/03/2008	13/03/2008	13/03/2008	
Heavy Metals	Arsenic	0.050	0.007	0.1	0.001	0.003	< 0.001	< 0.001	#
	Cadmium	0.0007	0.002	0.01	< 0.0002	< 0.0002	< 0.0002	< 0.0002	#
	Chromium (Total)	0.050	-	-	0.011	0.01	0.072	0.074	3
	Chromium (Hexavalent)	0.0044	0.05	-	< 0.005	< 0.005	0.052	0.058	7
	Copper	0.0013	2	0.2	< 0.001	< 0.001	< 0.001	< 0.001	#
	Lead	0.0044	0.01	2	< 0.001	< 0.001	< 0.001	< 0.001	#
	Mercury	0.0001	0.001	0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	#
	Nickel	0.007	0.02	0.02	0.002	0.002	0.002	0.002	0
	Zinc	0.015	3	2	0.002	0.001	0.01	0.011	10
Monocyclic Aromatic Hydrocarbons	Benzene	0.5	0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Ethylbenzene	-	0.3	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Toluene	-	0.8	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Xylenes(ortho,meta and para)	-	0.8	-	< 0.001	< 0.001	< 0.001	< 0.001	#
Polycyclic Aromatic Hydrocarbons	Acenaphthene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Acenaphthylene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Anthracene	-	0.005†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Benz(a)anthracene	-	0.0005†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Benzo(a)pyrene	-	0.00001	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Benzo(b)fluoranthene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Benzo(g,h,i)perylene	-	0.00005†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Benzo(k)fluoranthene	-	0.00005†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Chrysene	-	0.0002†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Dibenz(a,h)anthracene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Fluoranthene	-	0.001†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Fluorene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Indeno(1,2,3-cd)pyrene	-	0.00005†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Naphthalene	0.05	0.07†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Phenanthrene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Pyrene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
Total PAH	0.003	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
Total Recoverable Hydrocarbons	TRH C6-C9 Fraction by GC	-	0.15‡	-	0.03	0.04	< 0.02	< 0.02	#
	TRH C10-C14 Fraction by GC	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	#
	TRH C15-C28 Fraction by GC	0.001†	-	-	< 0.1	< 0.1	< 0.1	< 0.1	#
	TRH C29-C36 Fraction by GC	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	#
Volatile Organic Compounds	1,1-Dichloroethane	-	0.5†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,1-Dichloroethene	-	0.01†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,1,1-Trichloroethane	-	0.3†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,1,1,2-Tetrachloroethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,1,2-Trichloroethane	-	0.13†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,1,2,2-Tetrachloroethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,2-Dibromoethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,2-Dichlorobenzene	-	0.05†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,2-Dichloroethane	-	0.8†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,2-Dichloropropane	-	0.08†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,2,3-Trichloropropane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,2,4-Trimethylbenzene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,3-Dichlorobenzene	-	0.05†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,3-Dichloropropane	-	0.08†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,3,5-Trimethylbenzene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	1,4-Dichlorobenzene	-	0.05†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	2-Butanone (MEK)	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	2-Propanone (Acetone)	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	4-Chlorotoluene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	4-Methyl-2-pentanone (MIBK)	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Allyl chloride	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Bromobenzene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Bromochloromethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Bromodichloromethane	-	0.08‡	-	0.004	0.007	< 0.001	< 0.001	#
	Bromoform	-	0.63†	-	0.013	0.018	< 0.001	< 0.001	#
	Bromomethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Carbon disulfide	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Carbon Tetrachloride	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Chlorobenzene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Chloroethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Chloroform	-	0.4†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Chloromethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	cis-1,2-Dichloroethene	-	0.02†	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	cis-1,3-Dichloropropene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Dibromochloromethane	-	0.033‡	-	0.012	0.018	< 0.001	< 0.001	#
	Dibromomethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Dichlorodifluoromethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Iodomethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Isopropyl benzene (Cumene)	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
	Methylene chloride	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#
Styrene	-	0.3†	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
Tetrachloroethene	-	0.04†	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
trans-1,2-Dichloroethene	-	0.02†	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
trans-1,3-Dichloropropene	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
Trichloroethene	-	0.5†	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
Trichlorofluoromethane	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
Vinyl acetate	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	#	
Vinyl chloride	-	0.05†	-	< 0.001	< 0.001	< 0.001	< 0.001	#	

All results and criteria in mg/L unless otherwise stated

RPD	Relative Percentage Difference
Bold	Indicates exceedance of laboratory detection limits
Shading	Indicates exceedance of Department of Environment and Conservation (DEC 2003) Marine Water Guidelines (MWG)
Shading	Indicates exceedance of Department of Environment and Conservation (DEC 2003) Drinking Water Guidelines (DWG)
Shading	Indicates exceedance of Department of Environment and Conservation (DEC 2003) Irrigation Water Guidelines (IWG)
Shading	RPD > 50%
†	Dutch Intervention Values
‡	Dutch Intervention Values - 'Aromatic solvents' (defined as a standard mixture of substances referred to as 'C9-aromatic naphtha')
§	USEPA/Office of Water - Federal Drinking Water Standards; Federal-State Toxicology and Risk Analysis Committee (FSTRAC), Summary of State and Federal Drinking Water Standards and Guidelines
¶	USEPA/Office of Water - Drinking Water Criteria Document for Brominated Trihalomethanes - Note this level is maximum of the average range of Dibromochloromethane, identified from 604 Groundwater samples after treatment for drinking water

APPENDIX A
CERTIFICATES OF TITLE

Transfer 5773/1953 (42599)

Application

From Volume Folio

1161 462

15319/53



WESTERN AUSTRALIA.

REGISTER BOOK.

Vol. 1156.

Fol. No. 952

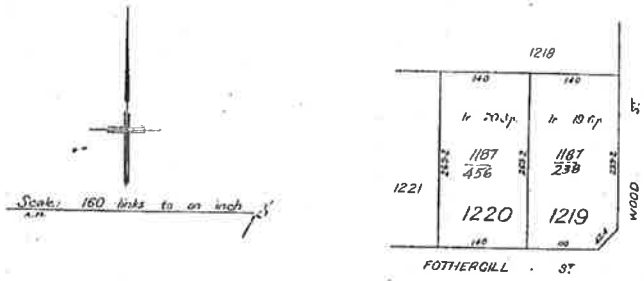
INDEXED

Certificate of Title



under "The Transfer of Land Act, 1893" (34 Vic. 14, sch. 5).

Burns Philp & Company Limited of 7 Bridge Street, Sydney in the State of New South Wales, is now the proprietor of an estate in fee simple subject to the easements and encumbrances notified hereunder in the natural surface and therefrom to a depth of two hundred feet of all those pieces of land delineated and coloured green on the map hereon containing together two roods thirty-nine and nine-tenths perches or thereabouts, being Fremantle Town Lots 1219 and 1220.



Dated the fifteenth day of April One thousand nine hundred and fifty-three

W. J. ...
Registrar of Titles.

TITLE BY CANCELLED.
TRANSFER 18731/1955 ^{Balance} Lot 1220 to
REGISTERD *Roy Poole*
6th DAY OF December 1953 AT 2.45 P.M.
Vol 1187 Pt 456. *W. J. ...*

Cancelled

4280/1/51-1/51-11/6

For encumbrances and other matters affecting the land see back.

EASEMENTS AND ENCUMBRANCES REFERRED TO

3678/1955

St. Vincent

TRANSFER 18286/1955 Lot 1219 to
 Lindsay Hudson Brown.
 Registered 25th November 1955 at 3.20 o'clock
 1187-238

[Signature]
 REGISTRAR OF TITLES

Cancelled

CT 1156 0952 B



CERTIFICATE OF TITLE

Vol

Fol.

1156



S. 284D.

WESTERN



AUSTRALIA

INDEXED

REGISTER BOOK

Land: 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Elizabeth the Second, by the Grace of God, of Great Britain, Ireland, and the British Dominions beyond the Sea, Queen, Defender of the Faith. To all to whom these Presents shall come, GREETING: Know Ye that We, of Our especial Grace, certain knowledge, and mere motion, have given and granted, and We do by these Presents, for Us, Our heirs and successors, in consideration of the payment of the sum of ... and the fulfilment of the prescribed conditions to the satisfaction of Our Government of Our State of Western Australia Give and Grant unto

City of Fremantle of Town Hall Fremantle

(hereinafter called the Grantee), the natural surface and so much of the land as is below the natural surface to a depth of --200-- feet of ALL THAT Piece or Parcel of Land situate and being in the Town of Fremantle in Our said State, containing ten acres eleven and seven-tenths perches more or less and marked and distinguished in the Maps and Books of the Department of Lands and Surveys of Our said State as ... and as the same is delineated and coloured green in the plan drawn in the margin hereof; TOGETHER with all Appurtenances thereto belonging, or in anywise appertaining; TO HAVE AND TO HOLD the said Piece or Parcel of Land to the depth aforesaid, and all singular the Premises hereby granted, with their appurtenances, unto the Grantee, in fee simple; PROVIDED, NEVERTHELESS, that, subject to section 141 of the Land Act, 1933, and Amendments, it shall (at any time within Twenty-one years from the date of these Presents) be lawful for Us, Our heirs and successors, or for any person or persons acting in that behalf by Our or their authority, to resume and enter upon possession of any part of the said Piece or Parcel of Land, which it may at any time by Us, Our heirs and successors, be deemed necessary to resume for roads, tramways, railways, and railway stations, canals, bridges, towing paths, harbour or river improvement works, drainage or irrigation works, quarries, and generally for any other works or purposes of public use, utility or convenience, and for the purpose of exercising the power to search for minerals hereinafter reserved, and such Land so resumed to hold to Us, Our heirs and successors as of Our or their former estate without making to the said Grantee, or any person claiming under it any compensation in respect thereof; so nevertheless, that no such resumption be made without compensation of any part of the said Piece or Parcel of Land upon which any expenditure or improvements shall have been made by the said Grantee, or any person claiming under it; and we do hereby save and reserve to Us, Our heirs and successors, all Mines of Gold, Silver, Copper, Tin, or other Metals, Ore, and Mineral, or other substances containing Metals, and all Gems or Precious Stones and Coal or Mineral Oil, and all Phosphatic Substances in or under the said Piece or Parcel of Land hereby granted, with full liberty at all times to search and dig for and carry away the same; and for that purpose to enter upon the said Piece or Parcel of land or any part thereof.

IN WITNESS whereof We have caused Our truly and well-beloved LIEUTENANT-GENERAL SIR CHARLES HENRY GAIRDNER, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Companion of the Most Honourable Order of the Bath, Commander of the Most Excellent Order of the British Empire, Governor in and over the State of Western Australia and its Dependencies, in the Commonwealth of Australia, to affix to these presents the Public Seal of the said State.

Sealed this 12th day of January One thousand nine hundred and fifty-three Charles Gardner Governor.

Grant under the Land Act, 1933, and Amendments.

ENTERED ON RECORD this 15th day of January 1953. Minister for Lands.

CT 1161 0462 F



L. Thorn

CERTIFICATE OF TITLE UNDER THE TRANSFER OF LAND ACT, 1893-1950

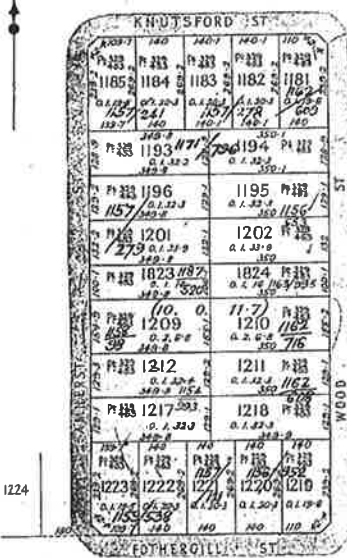
The abovenamed Grantee is now the registered proprietor of an estate in fee simple subject to the easements and encumbrances notified hereunder in all the land described in this grant.

Dated the fourteenth day of January One thousand nine hundred and fifty-three

ASSISTANT REGISTRAR OF TITLES

The area and measurements on the Plan below are more or less, and a peg has been placed at each corner of the lots.

PLAN HEREIN REFERRED TO:



TOTALLY CANCELLED. TRANSFER 12370/1953 Balance Lots 1193 and 1194 to Arthur Wilson Oxenblyen REGISTERED 24th DAY OF June 1954 No 450c Vol 1171 Fol 796

TOTALLY CANCELLED. TRANSFER 18889/1955 Balance (Lot 1822) to B. Brown P. & Co. L. & Co. REGISTERED 8th DAY OF December 1955 AT 11 0c Vol 1187 Fol 520

Scale: 3 chains to an inch. Surveyed by R. S. Cruickshank. Corr: 3819/56. Diag: 62649. Sub: 181.

Surveyor General

For encumbrances and other matters affecting the land see back.

LANDGATE

EASEMENTS AND ENCUMBRANCES REFERRED TO.

13678/1953 Lots 1212 and 1217 to
 Frank Colwyn Humphreys
 Robert Allan Murphy and
 George Stock
 Registered 10th March 1953 at 4.450/-
 W. 1157-213
 Subject to easements.
 Register of Titles
 To take balance of the within land.
 SPECIAL BUILDING CONDITIONS AND
 RESTRICTIVE COVENANTS CONTAINED
 IN TRANSFER 3678/1953

14937/1953 Lots 1195 and 1202
 to
 Safety Box Factory Proprietary Limited
 Registered 20th March 1953 at 2.250/-
 1156-533
 Register of Titles

5773/1953 Lots 1219 and 1220
 to
 Burns Philp & Company Limited
 Registered 15th April 1953 at 12.450/-
 1156-952
 Register of Titles

TRANSFER 6247/1953
 Lot 1221 to
 Raymond Joseph McHally
 Registered 22nd April 1953 at 3.250/-
 W. 1157-121
 Register of Titles

TRANSFER 6543/1953 Lots 1184 and 1185 to
 James Keenan Pty. Limited
 Registered 27th April 1953 at 350/-
 W. 1157-241
 Register of Titles

TRANSFER 6639/1953 Lots 1182 and 1183 to
 Noel Sweeney
 Registered 28th April 1953 at 3.550/-
 W. 1157-276
 Register of Titles

TRANSFER 6640/1953 Lots 1196 and 1201
 to George Burnett
 Registered 28th April 1953 at 3.550/-
 W. 1157-277
 Register of Titles

TRANSFER 8545/1953 Lot 1209
 to
 Bethune James Avery Burns
 Registered 26th May 1953 at 2.550/-
 W. 1158-98
 Register of Titles

TRANSFER 11963/1953 Lots 1222 and 1223 to
 Albert William Walters,
 Kenneth Roy Walters and
 Charles William Walters
 Registered 17th July 1953 at 30/-
 W. 1159-58
 Register of Titles

TRANSFER 13967/1953 Lots 1211 and 1218
 to
 Melbourne Steamship Company Limited
 Registered 19th October 1953 at 70/-
 1162-606
 Register of Titles

TRANSFER 13968/1953 Lot 1181
 to
 Raymond Howard Hicks
 Registered 18th October 1953 at 245/-
 1162-609
 Register of Titles

TRANSFER 14253/1953 Lot 1210
 to
 Francis William Gordon Turner and Veronica Turner
 Registered 21st October 1953 at 20/-
 1162-718
 Register of Titles

TRANSFER 16794/1953 Lot 1824 to
 Reginald Thomas Wardle
 Registered 30th September 1953 at 30/-
 W. 1163-915
 Register of Titles

TRANSFER 12370/1954 Lots 1193 and 1194 to
 Arthur Norman Oxwell
 Registered 24th June 1954 at 10.450/-
 W. 1171-796
 Register of Titles

Cancelled

CT 1161 0462 B



CROWN GRANT

Volume Folio

WESTERN



AUSTRALIA

REGISTER NUMBER 1219/DP162649	
DUPLICATE EDITION 2	DATE DUPLICATE ISSUED 23/8/2007

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **1187** FOLIO **238**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

R. Roberts



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 1219 ON DEPOSITED PLAN 162649

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

KEVALEX NOMINEES PTY LTD OF 2/677 MURRAY STREET, WEST PERTH
(T B333675) REGISTERED 10 MAY 1977

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. T3678/1953 RESTRICTIVE COVENANT BURDEN. REGISTERED 10.3.1953.
2. J729487 MORTGAGE TO AUSTRALIA & NEW ZEALAND BANKING GROUP LTD REGISTERED 5.5.2006.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1187-238 (1219/DP162649).
PREVIOUS TITLE: 1156-952.
PROPERTY STREET ADDRESS: 10 STACK ST, FREMANTLE.
LOCAL GOVERNMENT AREA: CITY OF FREMANTLE.

- NOTE 1: A000001A LAND PARCEL IDENTIFIER OF FREMANTLE TOWN LOT/LOT 1219 (OR THE PART THEREOF) ON SUPERSEDED PAPER CERTIFICATE OF TITLE CHANGED TO LOT 1219 ON DEPOSITED PLAN 162649 ON 01-MAY-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.
- NOTE 2: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE OF TITLE OR ON THE CURRENT EDITION OF DUPLICATE CERTIFICATE OF TITLE.

Superseded - Copy for Sketch Only

Transfer 18236/1955 (22537)

Application

From Volume Folio

1156 952

3779/56

24402/51



WESTERN AUSTRALIA.

REGISTER BOOK.

Vol. 1187

Fol. No. 238

INDEXED

CT 1187 0238 F

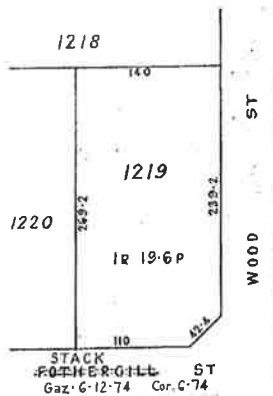


Certificate of Title

under "The Transfer of Land Act, 1893" (54 Vic., 14, Sec. 5).

Lindsay Hudson Brown of 23 Malsbury Street, Bioton, Business Manager, is now the proprietor of an estate in fee simple subject to the encumbrances and encumbrances notified hereunder in the natural surface and therefrom to a depth of two hundred feet of all that piece of land delineated and coloured green on the map heron containing one rood nineteen and six-tenths perches or thereabouts, being Fremantle Town Lot 1219.

Scale: 1 chain to an inch



Dated the twenty-fifth day of November One thousand nine hundred and fifty-five.

J. B. Blott
Registrar of Titles.

Transfer 183722 to Gills Transport Service (1959) Pty Limited of 10 Cantonment Street, Fremantle. Registered 1st July 1969 at 2.32 p.m.

Application 876150 The correct name and address of the proprietor is T. B. D. Pty Ltd of 16 Stack Street, Fremantle.

Transfer 876151 to Ralph Alexander Reid, Business Proprietor and Mary Reid, his wife, as joint tenants and Kevin John Burrows, Business Proprietor and Lena Joyce Burrows, his wife, as joint tenants and undivided half share all of 21 Blinco Street Fremantle as tenants in common. Registered 24th December 1975 at 9.03 a.m.

Transfer 8332675 to Kendal Nominees Pty Ltd. of 125 Rindley Street, Boonagoon. Registered 10th May 1977 at 9.02 a.m.

The correct address of the registered proprietor is now of care of T N Thomson & Co, Unit 11, 12-14 Thelma Street, West Perth.
By 641566. Dated 29th November 1995 at 8.52 hrs.

For encumbrances and other matters affecting the land see back.

6415/95-11/11/6

PH

EASEMENTS AND ENCUMBRANCES REFERRED TO

SPECIAL BUILDING CONDITIONS AND RESTRICTIVE COVENANTS CONTAINED IN TRANSFER 3628/1953

J. B. Blot
REGISTRAR OF TITLES

Mortgage 9112/1957 *Lindsay Australia Pty Ltd to Australian Mutual Provident Society*
to secure *£1000 0 0* Registered 15th August 1957 at 4/11 0/6 *W. Blackmore*
ASSISTANT REGISTRAR OF TITLES

Discharge 7245/64 of Mortgage 9112/1957. Registered 7th February 1964 at 9/16 0/6 *O. P. Brindall*
ASSISTANT REGISTRAR OF TITLES

Withdrawal 7245/64 WITHDRAWN 30.10.1966 at 9/30 0/6 *O. P. Brindall*
ASSISTANT REGISTRAR OF TITLES

Withdrawal A188727 of caveat 72496/64 Lodged 17-7-1969 at 2/32 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage 11207825 to The Commissioner of the City of Sydney Limited Registered 29th December 1969 at **DISCHARGED** *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Discharge A616947 of Mortgage A247428. Registered 2nd May 1974 at 9/23 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage 876152 to THE COMMISSIONERS OF THE RURAL AND INDUSTRIES BANK OF WESTERN AUSTRALIA Registered 2nd May 1977 at 9/03 0/6 **DISCHARGED**

Discharge B333676 of Mortgage 876152. Registered 11th May 1977 at 9/02 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage A333676 to THE COMMISSIONERS OF THE RURAL AND INDUSTRIES BANK OF WESTERN AUSTRALIA Registered 11th May 1977 at 9/02 0/6 **DISCHARGED**

Discharge C74415 of Mortgage D333676. Registered 5th February, 1981 at 2/29 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage C74416 to Mutual Acceptance Limited. Registered 5th February, 1981 at 2/29 0/6 **DISCHARGED**

Mortgage C854369 to The Commissioners of The Rural & Industries Bank of Western Australia. Registered 11th September, 1984 at 9/01 0/6 **DISCHARGED**

Discharge D2067 of Mortgage C854369. Registered 17th April, 1985 at 3/06 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Discharge D2068 of Mortgage C74416. Registered 17th April, 1985 at 3/06 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage D2069 to Perpetual Trustees W.A. Ltd. Registered 17th April, 1985 at 3/07 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage D2070 to The Commissioners of the Rural & Industries Bank of Western Australia. Registered 17th April, 1985 at 3/06 0/6 **DISCHARGED**

Discharge D325234 of Mortgage D2070. Registered 18th September, 1986 at 9/05 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage D325235 to The Commissioners of the Rural & Industries Bank of Western Australia. Registered 18th September 1986 at 9/05 0/6 *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Discharge D763511 of Mortgage D002069. Registered 26th May, 1988 at 9/30 hours. *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage E342770 to The Rural & Industries Bank of Western Australia. Registered 20th April 1990 at 8/16 hrs. *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage G41566 to Bank of Western Australia Ltd. Registered 29th November 1995 at 8/52 hrs. *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

Mortgage G369384 to Bank of Western Australia Ltd. Registered 10th January 1997 at 8/18 hrs. *J. Kennedy*
ASSISTANT REGISTRAR OF TITLES

CT 1187 0238 B

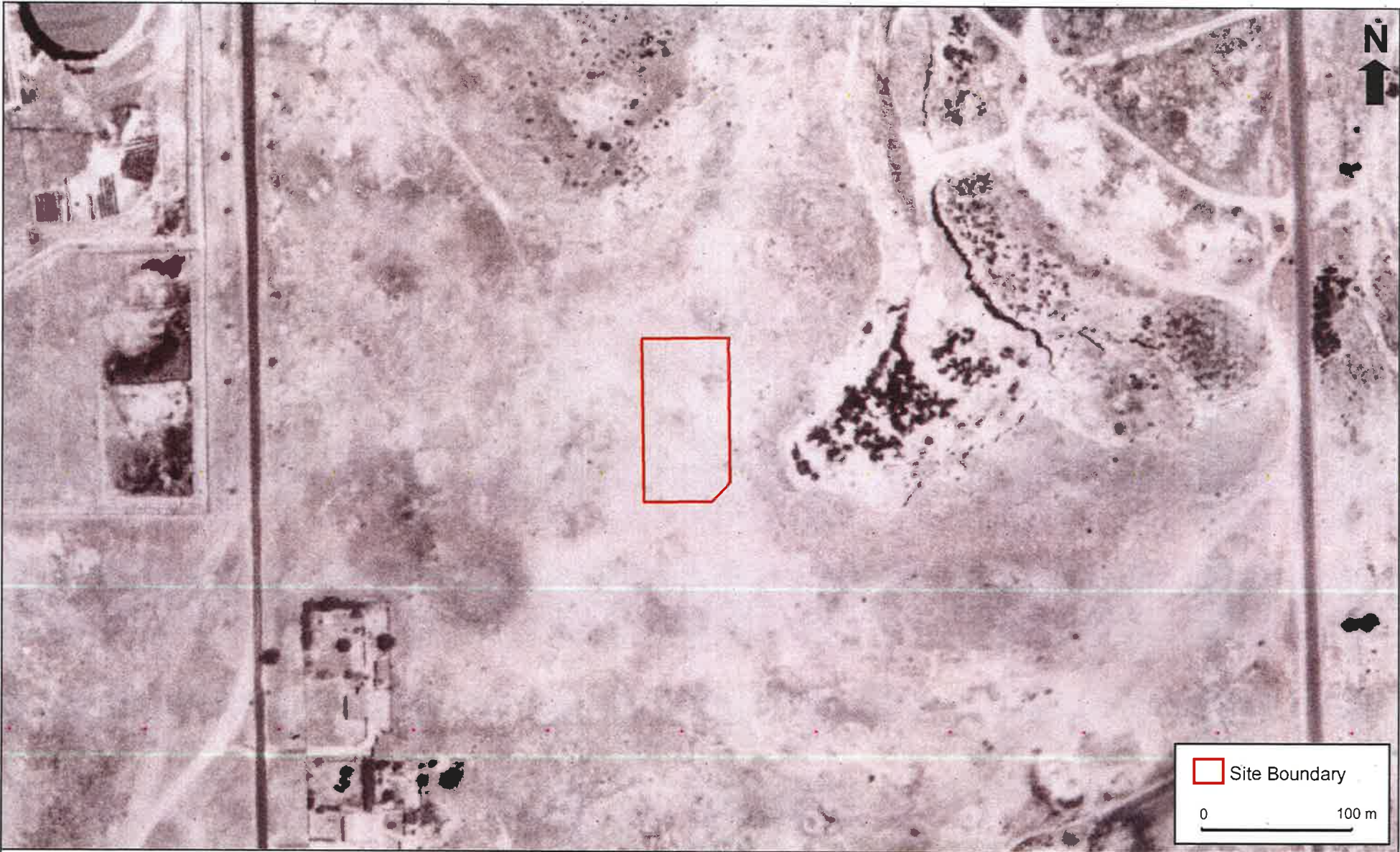



CERTIFICATE OF TITLE

Vol. Fol.
1187 238

Superseded - Copy for Sketch Only

APPENDIX B
HISTORICAL AERIAL
PHOTOGRAPHS



 Site Boundary
 0 100 m

Client: KEVALEX NOMINEES

Project: 10 Stack Street Fremantle Due Diligence Report

AERIAL PHOTOGRAPH - 1948

Job No: 08.054

Drawn By: MR (8/02/2008)

Checked By: MC

Source: Landgate





Client: KEVALEX NOMINEES

Project: 10 Stack Street Fremantle Due Diligence Report

AERIAL PHOTOGRAPH - 1999

Job No: 08.054

Drawn By: MR (8/02/2008)

Checked By: MC

Source: Landgate

 **Site Boundary**

0 100 m





Client: KEVALEX NOMINEES

Project: 10 Stack Street Fremantle Due Diligence Report

AERIAL PHOTOGRAPH - 2007

Job No: 08.054

Drawn By: MR (8/02/2008)

Checked By: MC

Source: Landgate

 Site Boundary

0 100 m

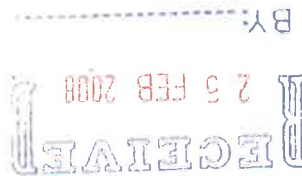


APPENDIX C
GOVERNMENT DATABASE SEARCH



Department of
Environment and Conservation

Your ref: FOI LR 719
Our ref: Lisa Smith
Enquiries: 08 6467 5105
Phone: 08 6467 5562
Fax:
Email: lisa.smith@dec.wa.gov.au



Miranda Cook
Env Australia
Level 7, 182 St Georges Terrace
Perth WA 6000

Dear Miranda

**FREEDOM OF INFORMATION (FOI) APPLICATION NO LR 719
PROPERTY: 10 (LOT 1219) STACK STREET FREMANTLE**

I refer to your request for access to documents concerning the above-mentioned site.

All reasonable steps have been taken to find any relevant documents related to your request and the Department is satisfied that no documents exist on departmental files that fall within the scope of your FOI request. I am however, as we discussed, enclosing for your reference documents dated 1 October 1999 relating to the Liquid Waste Producer Licence for 10 Stack Street, Fremantle.

The *Contaminated Sites Act 2003* and the associated *Contaminated Sites Regulations 2006* came into effect on 1 December 2006. After this date, a public database of confirmed contaminated sites can be accessed from www.dec.wa.gov.au/contaminatedsites, while information on other sites on the Department's records can be accessed by requesting a "Summary of Records" and paying the prescribed fee. The public database and/or the Department's other records could be searched before buying, rezoning or subdividing land. For further information on the availability of information on contaminated sites, please refer to Fact Sheet 1 *How to access information on contaminated sites in Western Australia*, which is available from www.dec.wa.gov.au/contaminatedsites.

The lack of information held by the Department in relation to the Property does not necessarily mean that the Property is not a contaminated site. Accordingly, if your client has any reason to suspect that the Property may be contaminated they may need to consider carrying out additional investigations to determine the extent of any problem.

I refer you to the Department's Contaminated Sites Management Series - Potentially Contaminating Activities, Industries and Land Uses. This guideline has been prepared to assist local government authorities, planners, consultants, industry and the general public in identifying potential contaminants associated with specific activities/ industries, as part of the assessment of contaminated land and groundwater in Western Australia.

If you wish to contest the decision in regard to the access of any documents, you have a right to have the decision reviewed. Details of the review process are set out in the attached extract from the Act.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Lisa Smith', with a long horizontal line extending to the right.

Lisa Smith

20 February 2008

enclosures

LICENCE

WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Environmental Protection (Liquid Waste) Regulations 1996

PREMISES

LICENCE NUMBER: P 16

FILE NUMBER: P0099

NAME OF LICENSEE: CHES Engine Reconditioning

ADDRESS FOR CORRESPONDENCE:

10 Stack Street
Fremantle WA 6160

NAME AND LOCATION OF LICENSED PREMISES:

10 Stack Street
Fremantle WA 6160

Released
Under
F.O.I

CATEGORIES OF WASTE STORED:

Tank ID	Category	Description	Tank ID	Category	Description
290	10	Alkalis	293	6	Oil/Water

COMMENCEMENT DATE OF LICENCE: 01/07/02

EXPIRY DATE OF LICENCE: 30/06/2004

CONDITIONS OF LICENCE:

As described and attached:

CONDITIONS: 1, 2, 3, 4, 5, 6, 9, 11, 13, 14, 16, 17, 18, 19.

Lillian Powell

.....
Officer delegated under Section 20
of the Environmental Protection Act

Receipt No: 22301
Receipt Date: 01/10/99
Licence Fee: \$0.00

Date of issue: 01/10/99
Licence valid to: as above

Amendment Date: 25/06/02

Protection (Controlled Waste) Regulations collects and transports liquid waste off-site from these premises.

- 18 This licence does not exempt the Licensee from other statutory requirements.
19 The licensee must ensure that the total volume of all packaged liquid waste containing aliphatic or aromatic hydrocarbon solvents including halogenated solvents, stored on the premises does not exceed 500 litres. This excludes perchlorethylene (tetrachloroethylene)

Released
Under
F.O.I.

Lillian B. Swell

.....
Officer delegated under Section 20
of the Environmental Protection Act

Date of issue: 01/10/99
Licence valid to: as above

Receipt No: 22301
Receipt Date: 01/10/99
Licence Fee: \$0.00

Amendment Date: 25/06/02



Our Ref: P0
Enquiries: Alex Altria (08) 9222 8604
DCN: LW718

Head Office:
Westralia Square
141 St Georges Terrace
Perth, Western Australia 6000
Tel (08) 9222 7000 Fax (08) 9322 1598
<http://www.envirom.wa.gov.au>

Postal Address:
PO Box K822
Perth, Western Australia 6842

~~XXXXXXXXXX~~
Ches Engine Reconditioning
10 Stack Street
FREMANTLE WA 6160

Dear ~~XXXXXXXXXX~~

ISSUE OF LIQUID WASTE PRODUCER LICENCE

Please find enclosed your licence for production of liquid waste.

It is advised that you and your staff read the conditions outlined on the second page of the licence. It is possible that amendments or additions have been made to these conditions altering your obligations when having liquid waste removed.

If you have any queries regarding the attached licence, please contact Alex Altria on 9222 8604.

Yours sincerely

PP
Debra Archdeacon
MANAGER, LIQUID WASTE
WASTE MANAGEMENT DIVISION

1 October 1999

COPY Released Under F.O.I.



WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Environmental Protection (Liquid Waste) Regulations 1996

CONDITIONS OF LICENCE

Released
Under
F.O.I.

LICENCE NUMBER: 16

FILE NUMBER:

- 1 All liquid waste transported off-site shall be disposed of at the Forrestdale liquid waste treatment plant, or other licensed disposal sites approved for accepting the types of categories of waste identified for disposal. Alternative arrangements may only be made with the prior approval of the Chief Executive Officer, Department of Environmental Protection.
- 2 The Director of Department of Environmental Protection, Waste Management Division, shall be informed promptly (i.e. within 14 days) in writing if the nature of any liquid waste requiring off-site disposal changes substantially.
- 3 Liquid wastes shall be in a condition acceptable for discharge at the treatment plant as detailed in Cleanaway Technical Services 'Liquid Waste Acceptance Criteria' (copy attached.).
- 4 Waste oil which is uncontaminated with water shall be collected separately and recycled.
- 5 Unwanted solvents or solvent-based wastes shall be collected separately and recycled, either on-site or by a solvent recycling company. Any solvent and water mixes must be pre-tested and certified to comply with condition 3 prior to transport off-site.
- 6 Acid and Alkaline wastes shall be adjusted to the pH range 2.0 to 12.5 before transport off-site.
- 9 Industrial non-biological liquid waste (waste category 5-13) shall not be mixed with biological waste (waste category 1-4).
- 14 This waste should have a flash point, greater than 61 degrees.



DEBRA ARCHDEACON
Manager Liquid Waste
Waste Management Division.....
Department of Environmental Protection
Officer delegated under Section 20
of the Environmental Protection Act

Receipt No: 22301
Receipt Date: 01/10/99
Licence Fee: \$308.00

Date of issue: 01/10/99

Amendment Date:



Department of Consumer
and Employment Protection
Government of Western Australia

Resources Safety

RECEIVED
21 MAR 2008
BY:

Your Ref: 08.054
Our Ref: 07/08-271:RSD0309/2008/1
Enquiries: Doris Marenko
Email: dmarenko@docep.wa.gov.au
Facsimile: 9358 8188

Miranda Cook
Environmentalist
ENV Australia Pty Ltd
PO Box 7480
Cloisters Square
PERTH WA 6850

Dear Ms Cook

NOTICE OF DECISION UNDER S30 FREEDOM OF INFORMATION ACT 1992 (the Act)

1. Your application under the Act sought access to Dangerous Goods Storage (DGS) licence documents for (Lot 1219), St No. 10 Stack Street, Fremantle 6160, WA.
2. On the information you provided, a search of our records has failed to locate any documentation containing the information you seek. Under s26 of the Act, the failure of the Department to locate any documents after a diligent search is deemed as a refusal to grant access.
3. Consequently, it was decided on **18 March 2008** by Alan Gooch Director Strategic Development (delegated decision maker by a general directive for the Director General as provided under s.100 (1) (b) of the Act) that you may not have access to these documents as the Department has no record of any such documentation.
4. Location descriptors provided by applicants may not always match site location details in our database and we ask if possible applicants provide the DGS Licence number of the site of interest to them. However, we recognise this is not always possible and do all we reasonably can to search for the site from the information provided.
5. The lack of information held by the Department in relation to this property does not necessarily mean the property is not or has ever been a dangerous goods storage site. Accordingly, if you have any reason to suspect that the property is or may have been the subject of a DGS licence you may need to consider carrying out additional investigations relating to your historical review of the site.
6. If you wish to contest the decision to refuse access to the documents, you have a right to have the decision reviewed. Details of the review process are set out in the attached notes.

Please do not hesitate to contact me on telephone 9358 8145 should you require any further information or wish to discuss this matter.

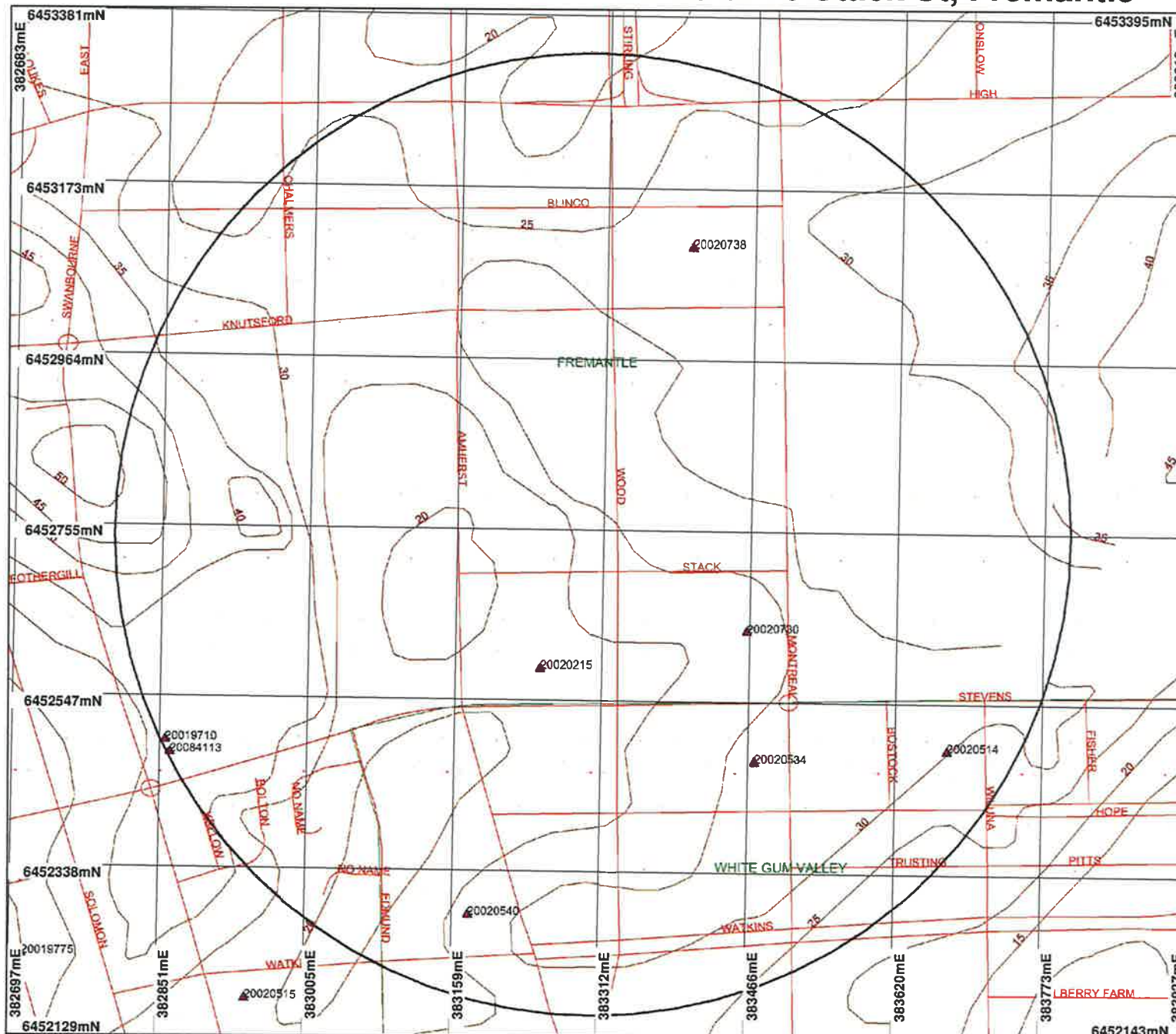
Yours sincerely

Doris Marenko
FOI OFFICER
RESOURCES SAFETY

17 March 2008

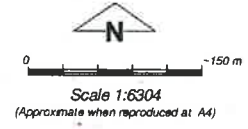
Enc. Notes

Location of bores within a 500m radius of 10 Stack St, Fremantle



- ### LEGEND
- Topographic Contours, Statewide - DOLA 12/09/02
 - Australian Coastline - DOW
 - Hydrography, linear (hierarchy) - DOW
 - Coastal Waterline
 - Estuarine
 - Infrastructure
 - Insignificant Trib
 - Inundation Area
 - Mainstream
 - Major River
 - Major Trib
 - Minor River
 - Minor Trib
 - Paleo-Drainage Line
 - Significant Stream
 - Road Centrelines - DLI 1/5/04
 - Localities - DLI
 - Towns - DLI 8/04
 - WIN Groundwater Sites, Water Corporation
 - WIN Groundwater Sites, Other - non DoW
 - WIN Groundwater Sites, Monitoring - non DoW
 - WIN Groundwater Sites, Other - DoW
 - WIN Groundwater Sites, Monitoring - DoW

* Project Data is denoted by asterisk.
This data has not been quality assured.
Please contact map author for details.



Geocentric Datum Australia 1994
Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies

Prepared by: brownt
Prepared for: DR21076
Date: 13/02/2008 4:33:49 PM

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

WIN Site Id	Distance from Site	Direction	Easting	Northing	Commence	Cease	Site Purpose	Owning Authority
20084113	520	SW	382862.00	6452477.00	22/12/1999		Irrigation	City Of Fremantle
20019710	520	SW	382857.00	6452492.00	00/01/1900		Irrigation	City Of Fremantle
20020215	130	SSW	383248.00	6452585.00	30/11/1977		Garden Irrigation	SIRNA
20020730	170	SE	383463.00	6452632.00	30/06/1982			
20020514			383674.00	6452488.00				GIZZARONE
20020534			383473.00	6452473.00				GIZZARONE
20020540			383176.00	6452283.00	00/01/1900		Garden Irrigation	RONICO
20020738			383401.00	6453101.00				PWD

APPENDIX D
SITE PHOTOGRAPHS

APPENDIX D
SITE PHOTOGRAPHS



PLATE 1: Bitumen driveway at rear of property and drainage sump, visible in middle ground.



PLATE 2: Two separator tanks on the western side of the building.



PLATE 3: The location of the settling tanks within the workshop



PLATE 4: Existing monitoring well MW3 in foreground and the exposed limestone wall on the western site of site.



PLATE 5: Chemical storage in unbunded area within workshop



PLATE 6: Drains (leading to settling tanks) surrounding the wash down area within the workshop.

APPENDIX E
LAB QA/QC AND GROUNDWATER
METHODOLOGY

GROUNDWATER SAMPLING METHODOLOGY

Groundwater Monitoring Well Construction Methodology

The installation of two groundwater monitoring wells, using a rotary air drilling method, was completed at the site, under the supervision of a qualified environmental scientist/engineer.

Bores were extended to approximately 2m below the present groundwater level. Screens were installed 2m below the water level and 1 m above the water table. Lithology of monitoring wells was logged during drilling.

The locations of the two new groundwater monitoring wells and the one existing monitoring well is illustrated in Figure 6. The locations of the groundwater monitoring wells were selected to identify possible onsite and offsite contamination sources

The monitoring well on the eastern side of the property was installed for monitoring groundwater contamination from offsite, upgradient sources. The monitoring well on the western side of the property was installed for monitoring groundwater contamination from onsite sources, and may indicate whether any groundwater contamination is flowing off site. The existing monitoring well is for monitoring the sump in the north west corner of the site.

A well construction diagram is presented in Figure E1.

The following groundwater monitoring well construction methodology was employed:

- Use of washed 50mm Class 18 PVC with 0.5mm machine slots over the bottom 3m of the bore casing. Slotting will extend at least 1m above the observed groundwater level to intercept any separate-phase hydrocarbons (SPH) and to accommodate fluctuations in the groundwater level. No glues or solvents will be used in the groundwater monitoring well construction;
- Filling of annulus between the casing and the borehole wall with a graded and washed coarse silica sand pack;
- Sealing of annulus with at least 0.5m of bentonite slurry with a concrete collar at the ground surface;
- Development of the monitoring bores to remove fines; and
- Surveying of the top of PVC casing to enable determination of groundwater elevation contours.

The construction details of monitoring wells were logged (Appendix F).

Groundwater Gauging, Purging and Sampling Methodology

Groundwater purging and sampling was completed by a qualified environmental scientist.

Each groundwater monitoring well was purged and sampled no less than seven days after well development, and the samples underwent laboratory analysis.

The employed method included:

- An interface probe was used to measure the depth of the static water level below the top of the PVC casing to enable construction of groundwater elevation contours;
- At least four bore volumes were purged before sampling using a dedicated disposable bailer for each groundwater monitoring well. The following water quality parameters were measured (from purge water): electrical conductivity (EC), dissolved Oxygen (DO), pH, temperature and redox potential during the purging event, until parameters equilibrate were within 10% of the previous reading;
- Sampling of groundwater began once water quality parameters were stabilised;
- Groundwater samples were immediately placed into appropriate laboratory-prepared containers, and stored on ice in an insulated container for the contaminant to be tested in accordance with the standard. Each sample was labelled with details of sample location, date and job number;
- Before their analysis for metals, groundwater samples were filtered through a 0.45µm membrane into laboratory-supplied plastic containers. Syringe filtration was used only once for each groundwater monitoring well to eliminate the need for decontamination procedures;
- Chain-of-custody forms accompanied containers to the laboratory;
- New disposable nitrile gloves were used for each sample;
- Interface probe was rinsed between each use with phosphorus-free detergent; and
- Purge water was collected in a bucket and disposed of down the well once sampling was completed.

QA/QC PROGRAM

Generally, all procedures, including staff selection, sampling methodologies, equipment, analysis methods and data transfer, were based on the DEC Contaminated Sites Management Series for investigating and managing contaminated land and other national guidelines and standards, including:

- Australian/New Zealand Standard AS/NZS 5667.1:1998. Water Quality-Sampling.

As this report is not being submitted to the DEC some procedures were not employed including:

- For every 10 samples, collection of a triplicate sample to be analysed at a separate laboratory collection;
- One rinsate blank sample collected from the interface probe on each day of sampling; and

General QC procedures for the site are detailed below.

Field QC sampling ensures that field work complies with the quality assurance program and that samples taken are representative, not subject to cross-contamination and are appropriately preserved. QC sampling for groundwater sampling includes:

- For every 10 samples, collection of a duplicate sample to be analysed at the same laboratory as the primary sample. The QC sample ID makes no reference to the primary sample;
- Calibration of the water quality meter before field work commenced.

Laboratory QA

The laboratory was NATA registered (National Association of Testing Authorities) for the selected analyses where possible, and it is stated in the report if it was not possible.

Laboratory QC

Laboratory QC sampling will be based on Schedule B(3) of the NEPM (NEPC, 1999a) and includes:

- Duplicate Analysis (at least one per process batch, or one per ten). The sample extracts prepared by the laboratory are split and tested separately;
- A Matrix Spike (one matrix spike for each soil type): an intra-laboratory split sample spiked with a representative set of target analytes. The purpose of this QC type is to monitor potential matrix effects on analyte recoveries; and
- Laboratory Control Samples (LCS): at least one LCS per process batch. The LCS is a known interference-free matrix spiked with target analytes or with certified reference material. The purpose of this QC measure is to monitor method precision and accuracy independent of the sample matrix.

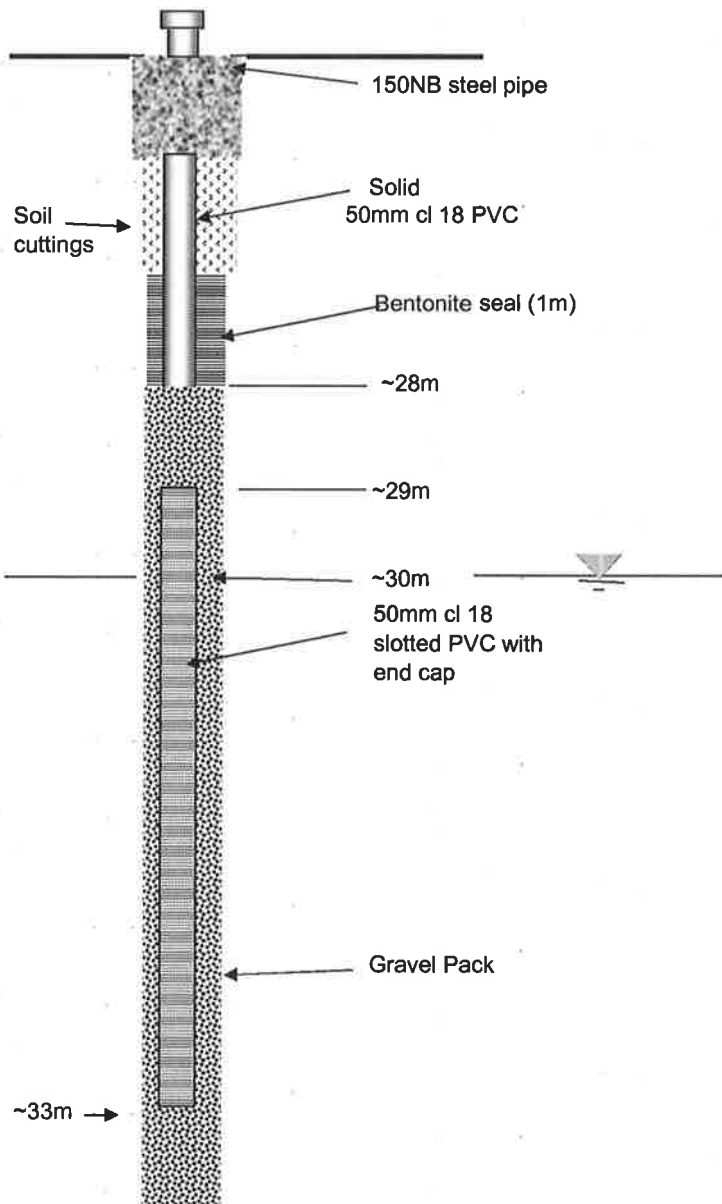


Figure E1 - Well Construction Diagram

APPENDIX F
PERSONAL COMMUNICATIONS

**Personal Communications with Pam Hartree, Librarian: Local History
Fremantle City Library**

16 Stack Street Fremantle.

From: Miranda Cook [mailto:miranda.cook@env.net.au]
Sent: Monday, 31 March 2008 10:26 AM
To: Local History - Kristi McNulty
Subject: 16 Stack Street Fremantle Research

Hi

I am completing a report for a business located in proximity to 16 Stack Street Fremantle. This was the location of a business called Radiator Masters/Fremantle Radiator Repair Service. This business was closed approximately 1.5 years ago

I was hoping to find any records/reports completed regarding contamination of this site.

Any assistance you could give me in researching this would be greatly appreciated.

Kind Regards,

Miranda Cook
Environmental Scientist

From: Pam Hartree [mailto:PAMH@fremantle.wa.gov.au]
Sent: Friday, 4 April 2008 3:40 PM
To: Miranda Cook
Subject: FW: 16 Stack Street Fremantle Research[Scanned]

Hi Miranda,

I have checked our collection and the rate books indicate that the address, which was previously 44 Fothergill St, had a factory on site from 1964/1965. It was originally owned by Gills Transport Service and then Fremantle Radiator Repair Service. See below:

1964/1965 to 17/9/1976	Gills Transport Service
17/9/1976 to c2006	Fremantle Radiator Repair Service

I have been unable to locate any reports or records regarding contamination of the site. I hope this information is of some help.

Regards

Pam Hartree
Librarian: Local History
Fremantle City Library

14 Stack Street Fremantle.

From: Miranda Cook [mailto:miranda.cook@env.net.au]
Sent: Friday, 4 April 2008 3:44 PM
To: Pam Hartree
Subject: RE: 16 Stack Street Fremantle Research[Scanned]

Dear Pam,

Thank you for that information, I really appreciate it, however the project manager has come back to me saying that it was actually number 14 Stack Street that we required information on. Would you be so kind as to perform another search for this address.

Kind Regards,

Miranda Cook
Environmental Scientist

From: Pam Hartree [mailto:PAMH@fremantle.wa.gov.au]
Sent: Friday, 4 April 2008 5:08 PM
To: Miranda Cook
Subject: RE: 16 Stack Street Fremantle Research[Scanned]

Hi Miranda,

The information on 14 Stack Street is not quite so clear. Factory premises were built c1964-65 and the premises were owned and occupied by Frank Ernest North. The land use survey conducted in 1984 indicated that the premises were used for chrome plating at this time. Rate books indicate that the premises were still owned by Mr North in 1987. Ownership changed between 1987 and 1991 and the premises were owned by Alan Vaughan, we have no indication what the premises were used for at this time, Mr Vaughan owned another factory in Wood Street and the 1984 land use survey indicates that these premises were called Vaughan Castings. It appears that the factory was owned by Mr Vaughan until 2007. Hope this information is of some help.

Regards

Pam Hartree
Librarian: Local History
Fremantle City Library

45-47 Wood Street, Fremantle

From: Miranda Cook [mailto:miranda.cook@env.net.au]
Sent: Monday, 14 April 2008 10:49 AM
To: Pam Hartree
Subject: RE: 16 Stack Street Fremantle Research[Scanned]

Dear Pam,

Sorry to bother you again, you've been really good with the information so far.

I have an additional request for any records/reports completed regarding contamination of the site located at 45-47 Wood Street, Fremantle 6160.

Any assistance you could give me in researching this would be greatly appreciated.

Kind Regards,

Miranda Cook
Environmental Scientist

From: Pam Hartree [mailto:PAMH@fremantle.wa.gov.au]
Sent: Monday, 14 April 2008 1:28 PM
To: Miranda Cook
Subject: RE: 16 Stack Street Fremantle Research[Scanned]

Hi,

We don't have very much information on this address. Information on file indicates that it was a Beaurepaires premises in 1960, the land use survey of 1984 indicates that it was Vaughan Castings at that time and in 1990 it is referred to as a Foundry Workshop.

We are unable to carry out an extensive rates search on this property but you are welcome to call in and undertake the research if you wish. We are open Monday-Friday, 9.30 – 5.00 pm.

Regards

Pam Hartree
Librarian: Local History
Fremantle City Library

3. POTENTIAL EXPOSURE PATHWAYS AND FACTORS CONTROLLING CHEMICAL MIGRATION

The major factors that affect migration of chemicals are the environmental settings of the site and surrounds (namely topography, geology and hydrogeology) and the presence/absence of man-made infrastructure; such as surfacing, trenches and utility conduits. Factors affecting migration of potential contaminants are detailed below.

3.1 CURRENT TOPOGRAPHY AND STORMWATER

Local Topography

The topography of the local area is undulating with, in general the land slopes to the west towards the Indian ocean.

Site Topography

The site slopes towards the west from approximately 29m AHD in the east to approximately 25AHD in the west.

Site Surfaces and Stormwater Drainage

The current site layout and surfaces are shown in Figure 2. The majority of the site is hardstand apart from some grass, bare soil and sparse vegetation bordering the lot.

Limestone outcrops are located along the steep decline which runs the length of the western boundary of the lot.

Due to the high infiltration capacity of soil and limestone bordering the lot stormwater is not expected to drain by overland flow to surface water bodies except under heavy rainfall.

3.2 REGIONAL GEOLOGY

Regional geological information was obtained from the GSWA (1986) 1:50,000 Environmental Geology Series Maps.

Regional mapping by GSWA indicates that there is one geological unit within the site.

Description of the geological unit is as follows:

LS₁ LIMESTONE – pale yellowish brown, fine to coarse-grained, sub-angular to well rounded, quartz, trace of feldspar, shell debris, variably lithified, surface kankar, or aeolian origin.

The Perth Groundwater Atlas (DoW, 2007) indicates that the base of the superficial formation (Tamala Limestone) is approximately -30m AHD. Davidson (1995) indicates the superficial formations are underlain by siltstone and shale of the Cretaceous Osborne Formation.

3.3 LOCAL HYDROGEOLOGY

The site is underlain by the unconfined superficial aquifer (within the Tamala Limestone) that extends to a depth of between 31 and 36m below ground level (bgl).

Several factors will affect the migration of fluids in the surface, these include:

Potential Preferred Pathways

There is a high potential for preferred pathways within the site. The LS₁ limestone unit is expected to contain preferred pathways. Groundwater flow may be affected by preferred pathways within soil types.

Depth to Groundwater and Level Fluctuations

Based on Perth Groundwater Atlas (DoW, 2007), groundwater is expected to be approximately 26m bgl across the site.

Seasonal fluctuations of approximately 1m are expected.

Local Groundwater Flow Direction

The Perth Groundwater Atlas (DoW, 2007) indicates that regional groundwater flow direction in the superficial aquifer is westerly towards the Indian Ocean. Groundwater contours and flow direction are presented in Figure 3.

Hydraulic Conductivity

Davidson (1995) provides the following relevant hydraulic conductivities:

LS ₁	– Tamala Limestone	100 - 1000m/day
	– fine-medium Sand	8.2m/day

Hydraulic conductivity may vary significantly within the site due to the heterogeneous nature of Tamala Limestone.

3.4 GROUNDWATER BORES

The DoW WIN database lists registered bores in WA. The locations and a summary of data available for local registered bores are included in Appendix C.

Eight groundwater bores are registered within a 1km radius of the site. Of these, three are down-gradient (west) of the site, one is up-gradient (east) of the site, and none are within the site. The table below shows details of these bores.

WIN Site ID	Distance from Site (m)	Direction	Commence	Cease	Bore Purpose	Owning Authority
20084113	520	SW	1999	-	Irrigation	City Of Fremantle
20019710	520	SW	-	-	Irrigation	City Of Fremantle
20020215	130	SSW	1977	-	Garden Irrigation	Sirna
20020730	170	SE	1982	-	-	-

According to DoW information, of the 3 groundwater bores down-gradient (west) of the site, 2 are owned by the City of Fremantle (irrigation) and one is a privately owned bore for garden irrigation purposes. It is believed that these wells are still in use.

Based on proximity to the site, the groundwater flow direction (westerly) and bore use, all four bores could be identified to be at risk from potential groundwater impacts considered for the site.

It should be noted that the information provided is only indicative of registered groundwater bores. The DEC estimates that the majority of domestic garden irrigation bores are unregistered in the Perth Metropolitan Region (i.e. that do not fall within statutory licensing requirements). It is possible that unregistered bores exist in the vicinity of the site.

3.5 ACID SULPHATE SOILS

Regional mapping for Acid Sulphate Soils (ASS) was obtained from the Western Australian Planning Commission (WAPC)'s Planning Bulletin 64 (WAPC 2003).

The site is designated 'no known risk of ASS occurring within 3m of the natural ground surface.'

3.6 TRENCHES, BARRIERS AND CONDUITS

Apart from a man-made drain, septic tanks and sand leach drains particularly in the north-west of the property, there are no recognisable trenches, barriers, tunnels, shafts or other potential preferred pathways identified at the site.

4. POTENTIAL RECEPTORS

Two groups of potential receptors are discussed, human and ecological. Potential human receptors identified include the current occupants, occupants of the proposed development and occupants of surrounding properties (including consumers of groundwater).

Potential ecological receptors include any unpaved areas and the ecologies of the surrounding area, both terrestrial and aquatic.

4.1 DEVELOPMENT ON 10 STACK STREET

Figure 2 shows the building on 10 Stack Street. The building consists of a brick and steel with suspected AMC roofing.

Zoning

The site is zoned:

- 'Urban' under the provisions of the Metropolitan Region Scheme; and
- 'DA1 Development' under the City of Fremantle Town Planning Scheme.

4.2 SURROUNDING LAND USE

The surrounding area contains a mixture of land uses. The surrounding land use is illustrated in Figure 4 and includes the following:

- North: McLennans Haulage – Cartage, storage and distribution of goods and containers. Previous land uses in the immediate north include a Beaufort premises and Vaughnan Castings between 1960 and 1990.
- East: Chalwell Wreckers - car parts & supplies, manufacturing, wrecking - Light industry further east. - Previous land uses in the immediate east include a chrome plating business c. 1984.
- South: Residential properties of Fremantle
- West: Boating storage WA, Western Power further west.

4.3 SENSITIVE RECEPTORS

A search of the DEC WIN database revealed 4 known groundwater bores within 600m down (hydraulic) gradient of the site. Groundwater flows within the superficial aquifer towards Indian Ocean in the west.

5. SAMPLING/ANALYSIS PROGRAM

It is noted that as the work was for due diligence purposes only, scope and methodology is not fully compliant with the DEC 'Development of Sampling and Analysis Programs' guideline (DEP 2001a).

5.1 AREAS OF ENVIRONMENTAL INTEREST

Soil sampling was not conducted on the site as limestone was shallow below the ground surface (>0.2m bgL). Due to the porous nature of limestone, groundwater contamination is of greater concern.

Groundwater contamination may potentially occur from onsite sources relating to the workshop and/or from offsite industrial sources.

The main area of concern is the sump in the north-west corner of the property.

A leach drain runs south-east to north-west into a sump in the north western corner of the site.

This sump receives the denser phase of liquids from settling tanks within the washdown area of the workshop. While the majority of hydrocarbons may be separated from this liquid, other contaminants such as solvents (VOCs) and heavy metals may remain in the denser phase of liquid.

Three monitoring wells have been used to determine onsite and offsite sources of groundwater contamination, with one well specifically targeting the sump.

The locations of the two new groundwater monitoring wells and the one existing monitoring well is illustrated in Figure 6. The locations of the groundwater monitoring wells were selected to identify possible onsite and offsite contamination sources

The monitoring well on the eastern side of the property was installed for monitoring groundwater entering from offsite, up-hydraulic gradient sources. The monitoring well on the western side of the property was installed for monitoring groundwater leaving the subject property from onsite sources, and may indicate whether any groundwater contamination is flowing offsite from the region of the known leach drain accepting industrial wash-down water. A previously existing monitoring well is located on adjacent property (8 Stack St), directly down hydraulic gradient of the sump in the north-west corner of the site.

5.2 GROUNDWATER ASSESSMENT

The following DEC (DoE, 2003) Assessment Levels were adopted:

- Marine Water Guidelines (MWG), based on the proximity of the site to the Indian ocean.
- Drinking Water Guidelines (DWG), based on the presence of potential future potable groundwater at the site and its surrounds.
- Irrigation Water Guidelines (IWG), based on the presence of groundwater at the site with the potential to be used for irrigation.

As per the DEC (DoE, 2003) recommendations, where there were no assessment levels, alternative assessment levels were used from other Australian guidelines (i.e. NEPM) and from reputable overseas sources. The Dutch Intervention Values (DIV, 2000) were adopted where no DWG values exist.

The following DIV for groundwater were adopted for the following compounds:

PAH (Anthracene, Benz(a)anthracene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Indeno(1.2.3-cd)pyrene, Naphthalene), VOC (Bromoform, Vinyl chloride, Chloroform, 1,1-Dichloroethane, 1,3-Dichlorobenzene, cis-1,2-Dichloroethene, 1,1-Dichloroethene, 1,3-Dichloropropane, Styrene, 1,1,1-Trichloroethane, 1,4-Dichlorobenzene, Tetrachloroethene, 1,1,2-Trichloroethane, trans-1,2-Dichloroethene, 1,2-Dichlorobenzene, Trichloroethene, 1,2-Dichloroethane, 1,2-Dichloropropane), TRH (C6-C9 Fraction).

The USEPA/Office of Water - Federal Drinking Water Standards; Federal-State Toxicology and Risk Analysis Committee (FSTRAC). Summary of State and Federal Drinking Water Standards and Guidelines were adopted for Bromodichloromethane.

USEPA/Office of Water - Drinking Water Criteria Document for Brominated Trihalomethanes – were adopted for dibromochloromethane.

5.3 CHOICE OF ANALYTES AND TEST PROCEDURES

Based on the historical assessment (Table 1), and possible impacts detected on nearby sites (Table 2) and the DEC guideline for “Potentially Contaminating Activities, Industries and Land Uses” (DoE, 2004), the following suite of analytes were assessed at the site:

- Heavy metals –As, Cd, Cr (Total), Cr (Hexavalent), Cu, Pb, Hg, Ni, Sn, and Zn;
- PAH;
- TRH;
- VOC's;

Gypsum and other calcium compounds may be present naturally because of the limestone geology. While these can cause adverse environmental impacts in some environments, they were not considered to be potential contaminants for this site.

5.4 GROUNDWATER SAMPLING METHODOLOGY

Groundwater sampling methodology is presented in Appendix E.

5.5 RESULTS

5.5.1 Groundwater Samples

Concentrations of all contaminants of concern were below the DEC Marine Water Guidelines (MWG), Drinking Water Guidelines (DWG) or Irrigation Water Guideline - Longterm Trigger Values (IWG/LTV) except for:

- One location (MW3) in which chromium (total) exceeded the DEC MWG (0.05mg/L).
- One location (MW3) in which chromium (hexavalent) exceeded the DEC MWG (0.0044mg/L) and the DEC DWG (0.05mg/L).

In all samples nickel and zinc were detected above laboratory detection limits but below all the adopted investigation levels.

Additionally in two locations (MW1 and MW2), bromodichloromethane, dibromochloromethane, bromoform and TRH were detected above laboratory detection limits but below all the adopted investigation levels.

Summary of Investigation Level Exceedences

Well	Exceedence	DEC Investigation Level
MW3	Chromium (Total) (0.072mg/kg)	MWG >0.05mg/L
	Chromium (Hexavalent)(0.052mg/kg)	MWG >0.0044mg/L DWG >0.05mg/L

5.6 QA/QC PROGRAM

A QA/QC program is discussed in Appendix E. RPD analyses are presented in Table 3.

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6. DISCUSSION AND CONCLUSIONS

From an interview with the current owner of the site it was established that a UST, formerly used for petrol, is located beneath a more recent extension to the workshop on the site. No dangerous goods (DOCEP) license was located for the site. Decommissioning of this former UST is not indicated.

Septic (sewer) tanks located in several areas on the property may have led to contamination of the groundwater.

The sump located in the north-west corner of the site is a possible groundwater contamination source.

Soil sampling was not conducted on the site as limestone was shallow below the ground surface (approx. 0.2m bgl).

Given the activities (engine repairs) identified for the property over the last 50 years, and the porous nature of limestone, groundwater contamination is of greater potential concern.

Groundwater analytical results from three monitoring wells indicate that:

- Groundwater (MW2) from an up hydraulic gradient direction (east) is not contaminated.
- Groundwater (MW1) directly down hydraulic gradient is also not contaminated.
- Groundwater (MW3) directly down hydraulic gradient of the drainage sump has a level of hexavalent chromium that exceeds the DEC MWG and DWG.

Groundwater contamination exceeding investigation levels was only identified down gradient of the north west corner of the site. No contamination was identified in the monitoring wells in the middle of the western and eastern boundaries of the property. It is likely that groundwater contamination, if present onsite is restricted to the northern end of the property.

It is not certain as to whether contamination identified in groundwater collected from MW3 originated from the sump (east) or from the property (Lots 1211 and 1218 Wood Street) adjacent to the north.

Based on the use of the site (10 Stack St) for almost 50 years for motor repairs it is possible that the contamination identified in MW3 is a result. Hexavalent chromium is a chemical associated with high temperature welding which is common practice in motor repair workshops. The workshop drains lead to separator tanks and then into the sump. The sump receives the denser phase

of liquids from settling tanks within the washdown area of the workshop. While the majority of hydrocarbons may be separated from this liquid, other contaminants such as solvents (VOCs) and heavy metals may remain in the denser phase of liquid. Hexavalent chromium identified in MW3 may be from this source.

However, from interviews conducted with the current owner of 10 Stack St and personal communications with Pam Hartree, a local history librarian from the Fremantle City Library, it has been established that Lots 1211 & 1218 Wood Street to the north of the subject property were a former foundry. It is believed that the southern side of Lot 1218 was built up with 44 gallon drums filled with foundry slag.

It is a possibility that the hexavalent chromium identified in groundwater collected from MW3 has originated partially or wholly from this offsite source.

It is anecdotally reported that groundwater contamination has in the past been identified an up-hydraulic gradient site (14 Stack St). ENV is advised that the site, a former casting supplies business has since been remediated. It is unlikely that this site is the source of hexavalent chromium identified in MW3 as hexavalent chromium would also be expected to be identified in MW2, closer to 14 Stack St.

Solvents (bromodichloromethane, dibromochloromethane and bromoform) were identified at concentrations below investigation levels. However, these chemicals are Dense Non Aqueous Phase Liquids (DNAPL) and will sink below groundwater. Groundwater sampling targeted the liquid close to the upper groundwater table and therefore may have not identified higher concentrations of solvents deeper in the groundwater aquifer.

Based on the investigations reported herein, an approximate range of costs to ascertain the chemical impact indicated from this work is estimated at between \$70,000 and \$140,000.

7. SUMMARY AND RECOMMENDATIONS

ENV conducted an environmental due diligence to assist the property owner and the purchaser to understand the potential environmental (contamination) liabilities that may effect the subsurface of the property.

Soil contamination may be present but is considered minor due to the shallow nature of soil on the site.

Further groundwater investigations are recommended to determine whether the contamination identified is from an onsite or an offsite source. This would involve installation of additional monitoring wells to delineate the area of groundwater contamination.

ENV notes that this due diligence investigation was conducted under the assumption that the property would remain under its current land use. If redevelopment of the site was to proceed, remediation of soil and removal of UST on the property would to be required. Upon removal of septic tanks, remediation may also be required.

Based on the investigations reported herein, an approximate range of costs to ascertain the chemical impact indicated from this work is estimated at between \$70,000 and \$140,000. Remediation and auditor costs are not included in this should they be required.

ENV recommends that a Form 1 "Report of a known or suspected contaminated site" is lodged with DEC. We are able to assist with this.

8. REFERENCES

Davidson W.A., 1995. Hydrogeology and Groundwater Resources of the Perth Region, Western Australia. Western Australian Department of Mines, Perth.

DEP, 2001a. Reporting on Site Assessments. Contaminated Sites Management Series. Department of Environmental Protection, Perth.

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Dutch Intervention Values 2000. Circular on target values and intervention values for soil remediation: DBO/1999226863, Ministry of Housing, Spatial Planning and Environment Directorate-General For Environmental Protection, Department of Soil Protection.

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