09/00031/FOL

Land Contamination Solutions

Environmental Consultants

Midlands

Mr Wright 15 MAR 2010

A copy for your records.
I have suggested that Mr Burrows replies directly wit the remainder of the items in your letter dated 1st March.

Regards AMc

Mr Simon Smith
Hinckley and Bosworth Borough Council
Argents Mead
Hinckley
LE10 1BZ

Date: 9th March 2010

Dear Simon.

Proposed Residential Development – Groby Garage, Markfield Road, Groby

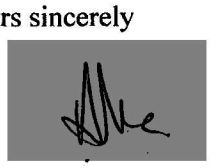
LCS Supplementary Environmental Investigation. Reference: LCS/GG/PIIA. Dated 16/01/10

Further to your recent request for further clarification of risks associated with near surface Chromium contamination present at the site, I am able to confirm the following:

The recommended cover system detailed in Section 12.1 of the above report, is designed to be protective against human health risks associated with any residual, Hydrocarbon and Chromium contamination likely to be encountered at the site.

I trust this is of value, however please do not hesitate to contact me if you have any further queries.

Yours sincerely



Andy McParland
Dip EH, MCIEH, MSc (Con. Land Mgt.) and Partner.

Cc Mr Kevin Burrows – By Email



4 Wymeswold Road, Hoton, Loughborough, Leics. LE12 5SN
Tel/Fax: 01509 880399 Email: admin@lcsmids.co.uk

16 MAR 2010

Kevin Burrows

53 Markfield Road

Groby

Leicester

LE6 0FL

DEVELOPMENT SERVICES

16 MAR 2010

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Mr R Wright - Area Planning Officer

Hinckley & Bosworth Borough Council

Council Offices Argents Mead

Hinckley

Leicestershire

LE10 1BZ

10th March 2010

Dear Mr Wright

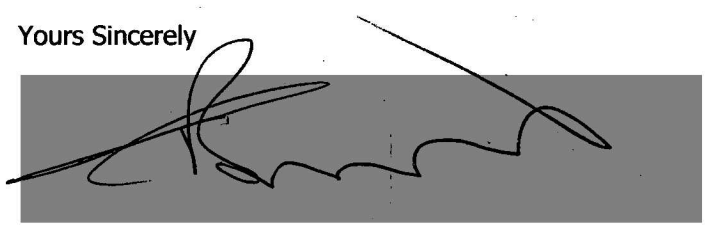
Re 09/00031/FUL

In view of the delays I would like a refund of the monies paid towards open space as per condition 11 A refund of £2501.60.

I will also let the garage but carry on with this permission till you give me a start date as my 14 days has past as per condition 9.

Please confirm that my responses are satisfactory. I look forward to receiving a prompt reply.

Yours Sincerely



Kevin Burrows

Cc Mr S Wood

Kevin Burrows

53 Markfield Road

Groby

Leicester

LE6 0FL

DEVELOPMENT SERVICES

16 MAR 2010

RECEIVED

Mr R Wright - Area Planning Officer

Hinckley & Bosworth Borough Council

Council Offices Argents Mead

Hinckley

Leicestershire

LE10 1BZ

10th March 2010

Dear Mr Wright

Re 09/00031/FUL – Discharge of Conditions

Further to your recent letter dated 1st March 2010, I can confirm the following.

Item1: one tank will be removed. The remaining tanks will stay as they are outside the buildings footprint. The opening left after the tank has been removed will be validated in accordance with section 12 of LCS report.

Item 2: one tank is located within the existing garage (this is the one that is being removed). The two other tanks are located on the front of the site. There exact location will be forwarded to you, prior to construction.

Item 3: all drainage within the site to be replaced during construction

Item 4: small shrubs to the front and small lawn area to the rear. The depth of top cover provided will be in accordance with section 12.1 of the LCS report.

Item 5: protection to water supply pipes will be in accordance with water authority requirements.

Item 6: it is proposed to retain all made ground at the site. Iff offsite disposal is required it will be undertaken in accordance with section 12.2 of the LCS report.

Item 7: details provided in separate LCS correspondence to Simon Smith and copied to you.

A copy of Ian Farmer report dated 21/7/09 enclosed.

Please confirm that my responses are satisfactory. I look forward to receiving a prompt reply.

Yours Sincerely



Kevin Burrows

Land Contamination Solutions

Environmental Consultants

Midlands

Mr Simon Smith
Hinckley and Bosworth Borough Council
Argents Mead
Hinckley
LE10 1BZ

DEVELOPMENT
SERVICES
16 MAR 2010
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Date: 9th March 2010

Dear Simon.

Proposed Residential Development – Groby Garage, Markfield Road, Groby

LCS Supplementary Environmental Investigation. Reference: LCS/GG/PIIA. Dated 16/01/10

Further to your recent request for further clarification of risks associated with near surface Chromium contamination present at the site, I am able to confirm the following:

The recommended cover system detailed in Section 12.1 of the above report, is designed to be protective against human health risks associated with any residual, Hydrocarbon and Chromium contamination likely to be encountered at the site.

I trust this is of value, however please do not hesitate to contact me if you have any further queries.

Yours sincerely

Andy McParland
Dip EH, MCIEH, MSc (Con. Land Mgt.) and Partner.

Cc Mr Kevin Burrows – By Email

4 Wymeswold Road, Hoton, Loughborough, Leics. LE12 5SN
Tel/Fax: 01509 880399 Email: admin@lcsmids.co.uk

RW.

Kevin Burrows

53 Markfield Road

Groby

Leicester

LE6 0FL

16 MAR 2010

Mr S Wood – Head of Planning

Hinckley & Bosworth Borough Council

Council Offices Argents Mead

Hinckley

Leicestershire

LE10 1BZ

10th March 2010

Dear Mr S Wood

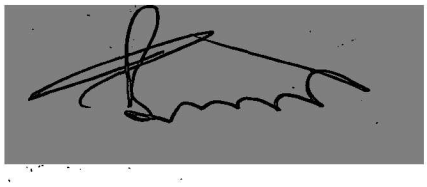
Re 09/00031/FUL

In view of the delays I would like a refund of the monies paid towards open space as per condition 11 A refund of £2501.60.

I will also let the garage but carry on with this permission till you give me a start date as my 14 days has past as per condition 9.

Please confirm that my responses are satisfactory. I look forward to receiving a prompt reply.

Yours Sincerely



Kevin Burrows

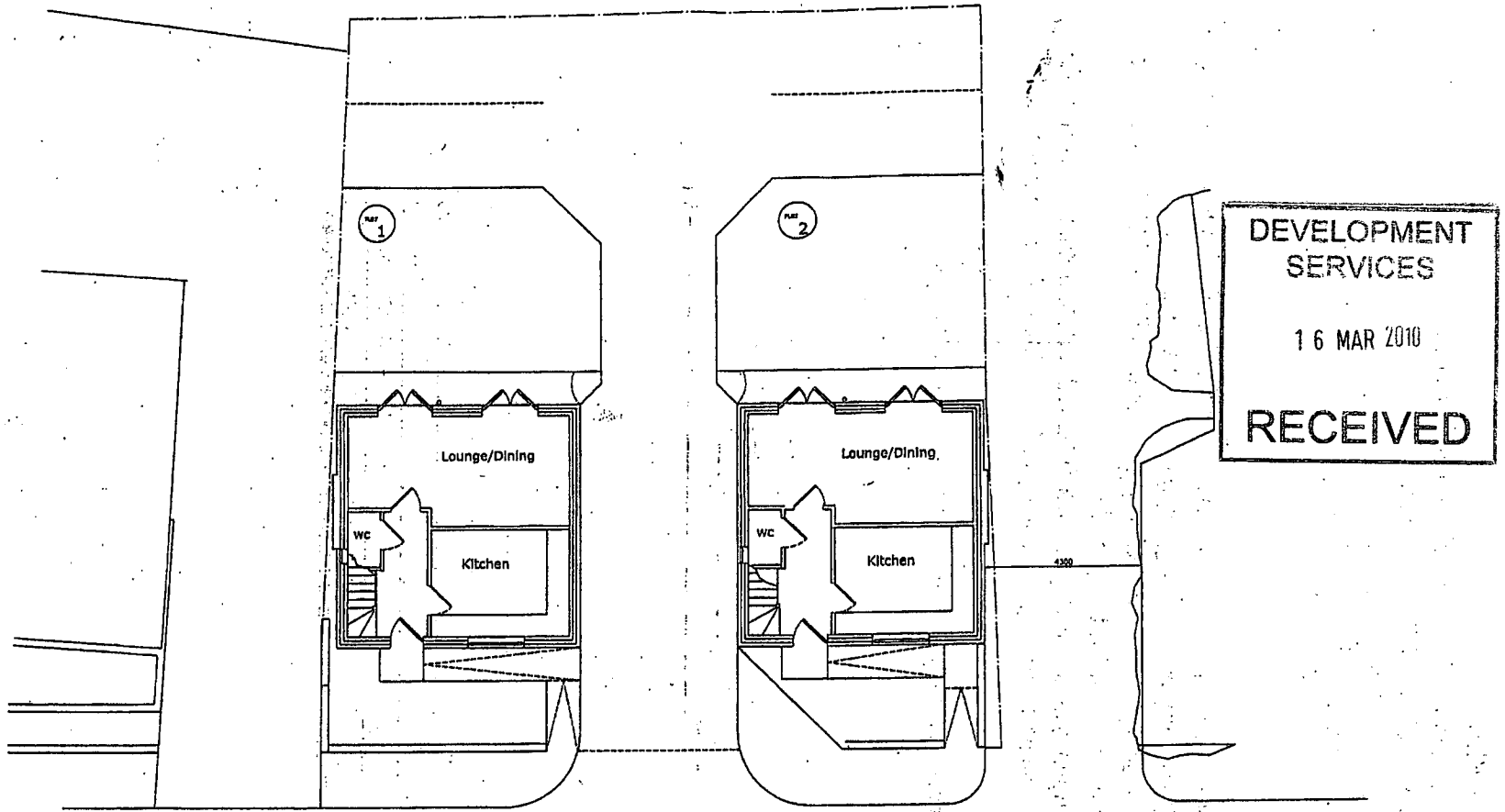
Cc Mr R Wright

DEVELOPMENT SERVICES

16 MAR 2010

RECEIVED

20514 53-55 Markfield Road, Groby



Site Plan

Scale: NTS

Figure A1.1

IAN FARMER ASSOCIATES

Building 9, Bilton Industrial Estate, Humber Avenue, Coventry, West Midlands. CV3 1JL Tel. 024 7645 6565 Fax. 024 7645 0446
Email. coventry@ianfarmerassociates.co.uk Internet.www.ianfarmerassociates.co.uk

21st July 2009

Mr K Burrows
Groby Garage
Markfield Road
Groby
Leicester
LE6 0FL

DEVELOPMENT SERVICES
16 MAR 2010
RECEIVED

Dear Kevin,

53-55 MARKFIELD ROAD (20514)

Introduction

Ian Farmer Associates (IFA) were instructed to review existing data for the above referenced site in order to review and update the risk assessment for the proposed further development of the site. It is proposed to construct two residential dwellings at the Markfield Road end of the site, with associated garden areas and parking to the rear.

Technical Background

An initial investigation was undertaken by IFA in August 2008, in which four trial pits were dug across the site, with soil samples from each taken and despatched for contamination testing. A copy of the letter report, dated 5th September 2003, which includes engineering logs and laboratory testing results, is appended, along with subsequent correspondence between Hinckley and Bosworth Borough Council (H&BBC) and IFA.

The report highlighted the presence of elevated nickel and polycyclic aromatic hydrocarbons (PAH), compared with screening values used at the time. Remedial recommendations were either the removal of made ground in the garden areas in its entirety, or a minimum of 600mm with replacement by clean cover, whichever was most relevant when compared with finished levels.

Environmental Background

As stated in the above referenced correspondence, IFA were not employed to undertake a formal desk study for the site. However, the Environmental Search on Residential Property for the site has been made available, a copy of which is appended. Whilst no conclusions are made within the report itself, the data implies the following:

- The site is situated on and in the vicinity of land which comprises disused quarries, and had been used in the past for tipping of various forms.
- A historical railway was located to the south of the site.
- There are industrial land uses in the vicinity of the site, which include engineering and a laboratory.
- The site is situated next to a former garage

At the time of the initial investigation, the above report had not been made available to IFA. The testing was therefore based on a general suite of contaminants; commonly known at the time as an ICRCL suite, along with a general hydrocarbon screen.

The main outcomes of the investigation were as follows:

- Made ground was encountered across the site as a clayey gravel to a maximum depth of 0.60m below ground level. This was directly underlain by weathered Mercia Mudstone. These findings agree with the published geology for the area and the information within the environmental search.
- The results of the contamination testing indicated that generally, contaminants were not elevated above guidance levels at the time, with the exception of Nickel and polycyclic aromatic hydrocarbon (PAH) levels in TP4.

Assessment Review

Taking the above into account, the soil results were compared with Assessment Criteria (AC) derived in-house using the CLEA Software Version 1.04, ref 1, and Environment Agency Science Reports SC050021/SR3, ref 2, and SC050021, ref. 3. The AC have been derived by Ian Farmer Associates in accordance with current legislation and guidance, using published Soil Guideline Value (SGV) data wherever possible. In the absence for a measured Soil Organic Matter (SOM), a conservative value of 1% SOM has been used for all AC.

None of the samples tested show elevated levels of contaminants above the AC with the exception of TP4, in which PAH, using benzo(a)pyrene as the risk driver. Nickel is no longer considered to be elevated when compared to current guideline values.

Based on the results of the testing IFA consider that the elevated PAH result may be due to a fragment of tarmac (as identified in the engineering log) which would not have been included within the sub-sample used for TPH (C10-40) testing. However, due to the evidence of a pipe and hydrocarbon odour at the same location, neither source could be ruled out on the basis of these tests.

Remediation

The laboratory analysis, along with the lack of any visual or olfactory evidence to the contrary, would indicate that the majority of the soil underlying the site may be considered to be free from significant contamination. However, based on the results from TP4 at the front of the site, IFA recommend the following:

- In the areas that are to be covered by buildings or hard standing, no pathway is likely to exist between any source of contamination and the human receptors by ingestion or dermal contact, therefore no further remedial action is required.
- The areas of landscaping to the front of the two properties should be stripped of made ground, with this replaced by clean imported topsoil. This will negate the effects from the PAH contamination encountered within said made ground.
- No remedial works are deemed necessary for the garden areas to the rear of the properties, based on the information available from TP3, backed up by the absence of contamination in the rear plot (TP1 and TP2).

Any imported topsoil brought onto site to replace the excavated material from the front areas of landscaping should have validation data to confirm that it is fit for purpose. This may be provided 'at source' prior to importation from a reputable supplier, or tested independently once on site. There is no minimum thickness recommended provided the made ground is removed in its entirety, other than that to provide a suitable growing medium, or for levelling purposes.

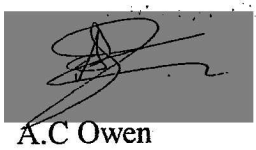
Validation by a suitably qualified environmental engineer is required to confirm that the imported material is fit for purpose and that the made ground in the landscaped areas at the front of the buildings has been removed.

There is always the possibility that other unidentified sources of contamination may be encountered during works on site. Should such contamination be identified or suspected during the ground works, these should be dealt with accordingly under advisement from a suitable qualified environmental engineer.

A copy of this report and attachments should be forwarded to the Local Authority for comment and approval prior to undertaking further work.

Should you require any further information, please do not hesitate to contact me.

Yours Sincerely
Far Ian Farmer Associates (1998) Limited



A.C Owen
Senior Environmental Geologist

Encs.

Figure A1.1 Site Plan
Letter Report Reference 2547, IFA, 5th September 2003
Correspondence, H&BBC, 29th September 2003
Correspondence, IFA, 27th October 2003
Environmental Search on Residential Property, PSG, 3rd July 2003

References

1. CLEA Software Version 1.04 (downloaded from the Environment Agency website, http://www.environment-agency.gov.uk January 2009)
2. Environment Agency Science Report SC050021/SR3, 2008, 'Updated technical background to the CLEA model'
3. Environment Agency Science Report SC050021, 2009, 'Contaminants in Soil: Updated Collation of Toxicological Data and Intake Values for Humans'

	DETERMINAND	Guidance Value (mg/kg)	Primary Data Source of Toxicological and Fate and Transport Data
		Residential with plant uptake	
PAH	Benzo(a)pyrene		
	1% SOM[1]	0.80	LQM CIEH GAC
Other Organics	Phenol		
	1% SOM[1]	180	EA_SGV 09
Metals	Arsenic	32	EA_SGV 09
	Cadmium	10	EA_SGV 09
	Chromium (VI)	38	CLEA SGV 4
	Inorganic Mercury	170	EA_SGV 09
	Nickel	130	EA_SGV 09
	Selenium	350	EA_SGV 09
	Lead	450	CLEA SGV 10
	Copper	432	LQM CIEH GAC
	Zinc	282	LQM CIEH GAC

IAN FARMER ASSOCIATES
Geotechnical & Environmental Specialists

2-4 Bilton Industrial Estate, Humber Avenue, Coventry, Warwickshire. CV3 1JL Tel. 024 7645 6565 Fax. 024 7645 0446
Email. coventry@ianfarmerassociates.co.uk Internet.www.ianfarmerassociates.co.uk

KBContractors
215 Leicester Road
Groby
LEICESTER
LE6 0DT

PB/2547
5th September 2003

DEVELOPMENT SERVICES
16 MAR 2010
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For the attention of Mr K Burrows

Dear Kevin,

53-55 MARKFIELD ROAD, GROBY (2547)

Please find enclosed the exploratory hole logs, exploratory hole location plan, and contamination testing results from the above-mentioned contract. We have the following comments to make regarding the contamination testing results, based solely on the four trial pits excavated.

The samples were tested for a suite comprising the range of contaminants listed in the Interdepartmental Committee on the Redevelopment of Contaminated Land (ICRCL) Guidance Note 59/83 (1987): "Guidance on the assessment and redevelopment of contaminated land", along with a Total Petroleum Hydrocarbons screen.

The Contaminated Land Report (CLR) series of documents were published in March 2002 by the Department for Environment, Food and Rural Affairs (DEFRA) with the aim of providing regulators, developers, landowners and other interested parties with relevant, appropriate, authoritative and scientifically based information and advise on the assessment of risks to human health arising from the presence of contamination in soils.

CLR introduces the use of Soil Guideline Values in the assessment of chronic risks to human health arising from land contamination. At the time of preparation of this report, SGVs have been determined for seven contaminants, including Arsenic and Mercury, with others being due to be released within the next 12 months. These values are an integral part of the

Contaminated Land Exposure Assessment Model (CLEA), together with ten possible exposure pathways and three assumed land use categories.

Where SGVs are not available, contaminant concentrations are still being assessed using the guidelines of the Inter-Departmental Committee for Redevelopment of Contaminated Land (ICRCL 59/83) 1987 in which tentative threshold trigger levels are given, although the Environment Agency announced that ICRCL 59/83 had been withdrawn in December 2002. It should be noted that all of the above guidelines, including the SGVs, are not binding standards and are not necessarily enforceable, but may be used to inform judgements about the need for action to reduce unacceptable risks to the health of intended users of the land.

Four of the samples tested had contaminant concentrations present at a level above their SGV trigger values quoted in the CLR/ICRCL guidance documents. Boron, a phytotoxic contaminant, was found in TP3 and TP4 at levels in excess of the trigger level quoted in ICRCL. Nickel was found in excess of the CLEA SGV in TP1 and TP4, with PAH (polycyclic aromatic hydrocarbons) concentrations exceeding ICRCL trigger value in TP4. It must be appreciated that trigger concentrations may be exceeded in areas not tested.

The contaminants detected are at a level where action should be taken. This should involve the removal in the garden areas of either the made ground present, or 600mm of soil from surface, whichever comes first. This should be replaced with clean imported topsoil.

Should there be any obvious signs of contamination or odours encountered during site clearance or excavation, then specialist advice should be sought.

Should you require any further information, then please do not hesitate to contact me.

Yours sincerely,
For Ian Farmer Associates (1998) Limited,

P.C.G Bailey BEng(Hons.) ACSM FGS
Senior Engineering Geologist

IAN FARMER ASSOCIATES

Site	Trial Pit Number
53-55 Markfield, Groby	TP2

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit	2.00 x 0.60m		KB Contractors	2547
	Location	**Dates** 08/08/2003	**Engineer** KB Contractors	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.60)	MADE GROUND: Red, clayey gravel, with many angular cobbles and boulders. Gravel is fine to coarse, angular		
0.30	D1				0.60			
0.70	D2				(0.30)	Stiff, brown, gravelly CLAY, with occasional cobbles and boulders		
					0.90			
					(0.50)	Very stiff, red, gravelly CLAY, with occasional cobbles and boulders		
1.40	D3				1.40			
						Complete at 1.40m		

Plan

Remarks

Scale (approx)	Logged By	Figure No.
1:25	SW	2547.TP2

IAN FARMER ASSOCIATES

Site: 53-55 Markfield, Groby			Trial Pit Number: TP1
Excavation Method: Trial Pit	Dimensions: 1.20 x 0.60m	Ground Level (mOD):	Client: KB Contractors
	Location:	Dates: 08/08/2003	Engineer: KB Contractors
			Job Number: 2547
			Sheet: 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	MADE GROUND: Red, clayey gravel, with many angular cobbles and boulders. Gravel is fine to coarse, angular. Few brick fragments present		
0.20	D1					Stiff to very stiff, red CLAY		
0.80	HV 196kPa		196/Av. 196:00		(1.20)			
1.20	D2							
					1.40	Complete at 1.40m		

Plan

Remarks

Scale (approx)	Logged By	Figure No.
1:25	SW	2547.TP1

IAN FARMER ASSOCIATES

Site: 53-55 Markfield, Groby				Trial Pit Number: TP3
Excavation Method: Trial Pit	Dimensions: 2.00 x 0.60m	Ground Level (mOD):	Client: KB Contractors	Job Number: 2547
	Location:	Dates: 08/08/2003	Engineer: KB Contractors	Sheet: 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	MADE GROUND: Red, slightly clayey gravel, with angular cobbles and boulders. Gravel is fine to coarse, angular		
0.20	D1				0.30			
0.40	D2					Stiff, red CLAY, with occasional lenses of fine to medium sand. Occasional layers of white clay, with much fine to coarse, angular gravel		
1.00	D3					Below 1.00m: Damp and firm		
					(2.70)			
2.00	D4							
2.80	D5							
					3.00	Complete at 3.00m		

Plan

Remarks

Scale (approx)	Logged By	Figure No.
1:25	SW	2547.TP3

IAN FARMER ASSOCIATES

Site	Trial Pit Number
53-55 Markfield, Groby	TP4

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial Pit	2.00 x 0.60m		KB Contractors	2547
	Location	**Dates** 08/08/2003	**Engineer** KB Contractors	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					0.10	MADE GROUND: Tarmac		
0.20	D1				(0.20)	MADE GROUND: Black, clayey gravel, with angular cobbles and boulders. Gravel is fine to coarse, angular		
					0.30	At 0.15m: Old fuel pipe, odour of hydrocarbon present		
0.50	D2					Stiff, red CLAY		
1.20	D3				(1.90)	At 1.20m: Wooden post, moist around it		
2.00	D4							
					2.20	Stiff, white, gravelly CLAY, with fine to coarse, angular gravel sized weathered mudstone lithorelicts		
2.40	D5				(0.20) 2.40			
						Complete at 2.40m		

Plan

Remarks

Scale (approx)	Logged By	Figure No.
1:25	SW	2547.TP4

Soil Report **8197** **Site** **Markfield Rd Groby 2547**

			Sample type	s	s					
			Laboratory reference	1	2	3	4	5	6	7
			Borehole/trial pit	TP1	TP2	TP3	TP3	TP4	TP4	TP4
			Sample reference							
			Depth (m)	0.20	0.30	0.20	1.00	0.20	0.50	1.20
Test	**Units**	**Method**	**As**							
Napthalene	mg/kg	126		-	-	-	-	<5.0	-	-
Acenapthene	mg/kg	126		-	-	-	-	<5.0	-	-
Acenapthylene	mg/kg	126		-	-	-	-	<5.0	-	-
Fluorene	mg/kg	126		-	-	-	-	<5.0	-	-
Phenanthrene	mg/kg	126		-	-	-	-	19	-	-
Anthracene	mg/kg	126		-	-	-	-	5.9	-	-
Fluoranthene	mg/kg	126		-	-	-	-	33	-	-
Pyrene	mg/kg	126		-	-	-	-	30	-	-
Benzo(a)Anthracene	mg/kg	126		-	-	-	-	17	-	-
Chrysene	mg/kg	126		-	-	-	-	17	-	-
Benzo(b)fluoranthene	mg/kg	126		-	-	-	-	14	-	-
Benzo(k)fluoranthene	mg/kg	126		-	-	-	-	14	-	-
Benzo(a)pyrene	mg/kg	126		-	-	-	-	17	-	-
Indeno(123cd)Pyrene	mg/kg	126		-	-	-	-	12	-	-
Dibenzo(ah)Anthracene	mg/kg	126		-	-	-	-	<5.0	-	-
Benzo(ghi)Perylene	mg/kg	126		-	-	-	-	10	-	-
PAH (total)	mg/kg	126		<5.0	<5.0	<5.0	-	190	-	<5.0

Checked and Issued By M Brock Senior Analyst

Date

Soil Report 8197 **Site** Markfield Rd Groby 2547

			Sample type	s	s					
			Laboratory reference	1	2	3	4	5	6	7
			Borehole/trial pit	TP1	TP2	TP3	TP3	TP4	TP4	TP4
			Sample reference							
			Depth (m)	0.20	0.30	0.20	1.00	0.20	0.50	1.20
Test	**Units**	**Method**	**As**							
Arsenic (total)	mg/kg	122	As	3.1	6.0	8.7	-	11	-	5.3
Boron (water sol	mg/kg	124	B	0.26	2.1	4.7	-	5.0	-	2.3
Cadmium (total)	mg/kg	122	Cd	<0.50	<0.50	<0.50	-	0.93	-	<0.50
Chromium (total	mg/kg	122	Cr	90	18	15	-	21	-	64
Chromium (VI)	mg/kg	127	Cr	0.83	-	-	-	-	-	0.88
Copper (total)	mg/kg	122	Cu	30	17	38	-	59	-	33
Lead (total)	mg/kg	122	Pb	20	41	48	-	110	-	24
Mercury (total)	mg/kg	122	Hg	<0.50	<0.50	<0.50	-	<0.50	-	<0.50
Nickel (total)	mg/kg	122	Ni	89	23	24	-	27	-	110
Selenium (total)	mg/kg	122	Se	<0.50	<0.50	<0.50	-	<0.50	-	<0.50
Zinc (total)	mg/kg	122	Zn	80	48	100	-	280	-	85
Cyanide (total)	mg/kg	125	CN	<1.0	<1.0	1.0	-	<1.0	-	<1.0
Cyanide (free)	mg/kg	125	CN	-	-	-	-	-	-	-
Cyanide (complex)	mg/kg	125	CN	-	-	-	-	-	-	-
Thiocyanate	mg/kg	132	SCN	-	-	-	-	-	-	-
Phenol (total)	mg/kg	120	PhOH	<0.50	<0.50	1.1	-	<0.50	-	<0.50
pH	pH units	119	pH	7.0	6.0	7.8	-	7.3	-	7.5
Sulphate (total)	mg/kg	123	SO4	<200	<200	<200	-	<200	-	<200
Sulphide (total)	mg/kg	121	S2-	<10	<10	<10	-	13	-	21
Sulphur	mg/kg	sub	S	<5.0	<5.0	<5.0	-	<5.0	-	<5.0
TPH (C10-40)	mg/kg	133	TPH	-	<50	<50	<50	<50	<50	-

Checked and Issued By M Brock Senior Analyst

Date 5.9.03