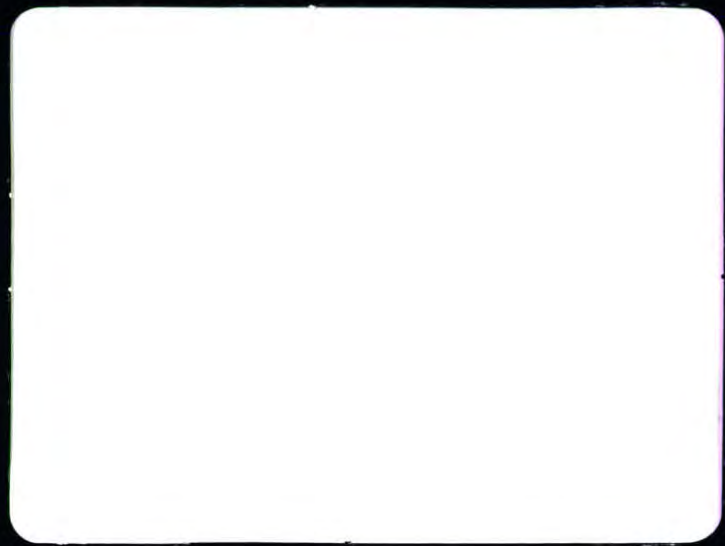


Emsworth
North Street
9722
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141804



45526
5214
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459



**ENVIRONMENTAL ASSESSMENT
SITE INVESTIGATION
FACTUAL REPORT**

**TRANSCO OPERATIONAL AREA,
NORTH STREET, EMSWORTH**

Mentor No. 009722

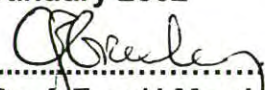
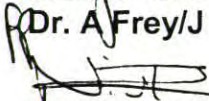
January 2002

Prepared for:

Lattice Property Holdings Limited
Aviary Court
Wade Road
Basingstoke
RG24 8GZ

Prepared by:

Parsons Brinckerhoff Limited
Queen Victoria House
Redland Hill
Redland
Bristol
BS6 6US

Report Title	:	Environmental Assessment Site Investigation Report North Street, Emsworth, Hampshire
Report Status	:	Final
Job No.	:	BEN40102E/100.1
Date	:	January 2002
Prepared by	:	 Dr. A Frey/J Merrick
Checked by	:	 N Bray/J Robinson
Check Cat	:	C
Approved by	:	 A Limage

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Lattice Property Holdings Limited (LPH) has commissioned Parsons Brinckerhoff Ltd (PB) to undertake an intrusive ground investigation of the Transco Operational Area at North Street Emsworth, Hampshire. The investigation was undertaken to identify the nature and extent of potential ground and groundwater contamination.

Current Site Status	Transco Operational Area.
Site History	Historical plans suggest that the site formed part of Emsworth Gasworks since before 1870. Associated structures were also located on land adjacent to the north-east of the site, where by 1898 a circular structure –possibly a gas holder -had been added. By 1908, gasworks production was limited to the study site, and further structures including a gas-holder, probable booster house and store had been added in the north, north-west and south-west respectively. By 1932 the gas-holder in the north and the store in the south-east had been removed, and by 1942 a larger gas-holder had been constructed central to the site. A minor structure was added in the eastern area of the site before 1969.
Geology	Made Ground above alluvium (near the eastern boundary) over London Clay. Brick earth underlies Made Ground near the south eastern boundary.
Hydrogeology	The London Clay is classified as a Non-Aquifer by the Environment Agency. During the site investigation groundwater was restricted to the alluvium and the claystone rock of the London Clay. Groundwater monitoring indicate the groundwater beneath the site to be in hydraulic continuity with the River Ems, with the general direction of groundwater flow towards the south east and the River Ems.
Hydrology	The River Ems and its associated tidal ponds are located 10m to the east and 200m to the south east, respectively.
Site Investigation Details	7 No. Trial Pits were and 4 No. Boreholes were excavated to investigate ground and groundwater conditions, together with any historical structures present.
This sheet is intended as a summary only of the assessment of the site in relation to ground contamination. It does not provide a definitive engineering analysis.	

SECTION 1

INTRODUCTION

1 INTRODUCTION

1.1 General

1.1.1 Lattice Property Holdings Limited (LPH) has commissioned Parsons Brinckerhoff Limited (PB) to undertake an intrusive ground investigation at the Transco Operational Area, North Street, Emsworth, Hampshire. The LPH order number for the work is 420861.

1.1.2 The investigation was designed based on information contained in the following report – Desk Top Survey North Street Emsworth, Hampshire, dated November 1998 and prepared by Kennedy and Donkin Ltd (now Parsons Brinckerhoff Ltd). Relevant data has been included from this study where applicable.

1.1.3 All work has been undertaken in accordance with the LPH document "Guidance for Assessing and Managing Potential Contamination on Former Gasworks and Associated Sites (Version 2.4)"¹, unless otherwise stated.

1.1.4 The principal objectives of the investigation were to identify the nature and extent of potential soil and groundwater contamination.

1.1.5 The site comprises existing operational plant, which includes an above ground gasholder in the central area, a booster house in the north-west, a governor house in the east and a boiler house in the south-east. Former structure footprints are expected below ground in the north-east, north and north-west of the site.

1.2 Report Format

1.2.1 This factual report includes the following information:

- current site status – including the location and description of on-site and neighbouring development;
- site geology, hydrogeology and hydrology;
- site history and review of previous reports;
- site investigation summary including logs, field and laboratory data;

SECTION 2
SITE AREA

2 SITE AREA

2.1 Site Location and Description

2.1.1 The site is accessed via North Street and Palmer's Road in the southern boundary, and is located approximately 0.5 km from Emsworth town centre. The site location and layout are shown on Figures 1 and 2 respectively.

2.1.2 Specific information relating to the site is summarised in Table 2.1 below.

Table 2.1: Site Information

Site Address	Transco Operational Area, North Street, Emsworth, Hampshire.
Telephone Number	-
Site Area	Approximately 0.43 hectares
National Grid Reference	474963 106132
Mentor Number	009722
General Environment	Mixture of residential light industrial and commercial.
Current Site Use	Current Transco operational gasholder and ancillary equipment in use
Proposed Site Use	Not Known
Site Access	Access is gained through locked gateway in the southern boundary off Palmer's Road.
Site Boundaries	The southern and eastern boundaries are marked by galvanised fencing, with dense bush and immature trees to the east. The northern boundary is marked by a brick wall topped with wire fencing. The eastern boundary consists of 2 storey brick walls associated to an adjacent residential building in the south-west, and a booster house in the north-west. The remainder of the boundary comprises galvanised fencing.
Ground Cover	Approximately 60% of the site is covered by existing structures. The remainder is covered by grass, with a gravelled surface around the gas-holder perimeter.
Site Topography	The site is generally level but has raised grassed areas in the western and north-western areas.
Plant and Equipment	A gasholder, booster, governor and boiler house are located in the central, north-west, east and south-east areas of the site, respectively
Waste Management and COMAH Licences	No licenses or reports relating specifically to the site.
Services	Service plans provided by the statutory undertakers are provided as Appendix 5. Approximate locations of services within the site boundary are shown on Figure 2.

2.2 Surrounding Environment

2.2.1 Table 2.2 below provides information on the area surrounding the site.

Table 2.2: Surrounding Environment

Development to the North	An anodising firm is located immediate to the north-west.
Development to the East	No development.
Development to the South	Immediate to the south-east is a Car Body Repair unit and to the south-west are residential properties. These are bisected by Palmer's Road.
Development to the West	Residential buildings and gardens are immediate to the south-west, beyond which is North Street comprising commercial outlets.
Regional Topography	The site is approximately 6m above mean sea level. The surrounding topography is a contributory to the coastal Langstone, Emsworth and Thorney Channels. The area has topographic highs around Dawn Copse in the north-east, Southleigh Forest in the north and Dunsbury Hill in the north-west, from which there is a down-slope to the south. This gradient shallows from the Westbourne and Havant areas toward the coastline.
Potentially Contaminative Land Uses in Vicinity of Site	One former landfill is reported within 1km radius of the site (Appendix 6). This is located 100m to the south-east of the site.
Environmentally Sensitive Areas in the Vicinity of the Site	The River Ems and Chichester Harbour are located approximately 10m to the east and 250m to the south respectively.
Mining Activity	Information provided by Landmark indicates that there are no mineral workings within 1 km of the site.

2.3 Key Observations from Site Inspection

Summary of Site Inspection

- 2.3.1 A site 'walk-over' inspection was undertaken by an environmental scientist of PB (Peter Leonard) in July 2000. The inspection was undertaken to identify the present status of the site and record any visible evidence of surface contamination. Site photographs are attached at the back of the Report.
- 2.3.2 Access to the site was gained at the south-western end of the site via secured double gates off Palmer's Road (Photograph 2). The site is roughly square in shape and is dominated by the presence of an operational above ground gas holder No. TC3 (Photograph 7).
- 2.3.3 The southern and eastern boundaries of the site are secured by 2m high galvanised steel fencing, with dense bush and trees along the eastern boundary of the site (Photographs 3, 6, 9 and 11). The northern boundary of the site (Photograph 4) is marked by a 1m high brick wall with additional wire fencing on top. The eastern boundary of the site is formed by 2m high

galvanised steel fencing, by outer walls of residential buildings (Photograph 14) and by a former gasworks building (Photograph 5).

2.3.4 Several operational buildings are located on the site (Photographs 3, 6, 10 and 13), while a footprint of at least one former structure is clearly identifiable (Photograph 11). The site is predominantly covered with existing structures, with the remainder of the site being covered by grass (Photograph 13 and 14) and a gravelled surface around the existing gas holder (Photographs 2, 3 and 8).

2.3.5 There was no visible evidence of surface contamination observed during the site inspection.

2.4 Geology, Hydrogeology, Hydrology and Drainage

Geology and Hydrogeology

2.4.1 The geology and hydrogeology of the site has been reviewed with reference to the 1:50,000 Geological Survey sheet 316 Fareham (Drift Edition), Institute of Geological Sciences and Southern Water Authorities: Hydrogeological Map of the South Downs and Parts of the Weald and the NRA Policy and Practice for the Protection of Groundwater Resources Southern Regional Appendix.

2.4.2 The regional geology of the area comprises Cretaceous and Tertiary formations. Cretaceous Upper Chalk is overlain by the Tertiary deposits of the Reading Beds and London Clay, both predominantly clayey sediments. Brick earth drift deposits overly the Tertiary strata in some areas, comprising silts, sands and occasional gravels of flint and chalk. Alluvial deposits can be found near main rivers and tributaries comprising soft pale grey silt, sand and clays derived from the local stratigraphy. The regional geology and hydrogeology is summarised in Table 2.3, ground conditions identified during the site investigation are discussed in Section 3.

Table 2.3: Geology and Hydrogeology

Formation (Maximum Thickness m)	Description	Flow Mechanism	Aquifer Classification
Alluvium	Clays silts and sands with peat and localised gravel bands. Small, local aquifers. Vulnerable to surface pollution and saline intrusion associated to tidal movement adjacent to rivers.	Intergranular	Minor-Aquifer in places
Brick earth	Poorly bedded silty loam with flint and chalk nodules.	Intergranular	Non-Aquifer, Minor-Aquifer in places
London Clay	Blue, grey shaley clays, loams and thin sands. Very limited water supply from	Intergranular	Non-Aquifer

Formation (Maximum Thickness m)	Description	Flow Mechanism	Aquifer Classification
Reading Beds	Mottled clays with basal beds of pebble, sand and ironstone concretions.	Intergranular	Minor Aquifer
Upper Chalk	Highly fractured limestone. Soft putty clays with poor fracture development at the near surface	Fracture Flow	Major Aquifer

Hydrology and Drainage

- 2.4.4 The site is located approximately 100m west of the River Ems, which is classified by the Environment Agency as having a River Quality of Grade B (Good). The river flows into Chichester Harbour, which is designated as an area of outstanding natural beauty and a SSSI. The River Ems itself becomes tidally influenced a short way downstream of the site. It is estimated that the river may cause flooding up to 2m deep during a 1 in a 100yr storm event.

Licensed Abstractions

- 2.4.5 Information supplied by Landmark Information Group indicates that there are two licensed abstractions located within 2km of the site.

Licence Holder	Use	Source	Distance Site (m)	From	Direction From Site
Mr N Rule	Watercress/ Fish Farm	River	1970		North
Windsor House Natural Water Company	General Industrial	Groundwater	1820		North

Discharge Consents

- 2.4.6 Information supplied by the Environment Agency (Appendix 6) indicates that only one discharge consent currently exists within a 1km radius of the site. The consent relates to discharge from the existing gas holder on site, with the water being discharged into the River Ems.

2.5 Recorded Pollution Incidents / Environmental Concerns

- 2.5.1 Information from the Environment Agency and the local council shows that no instances or environmental concerns were connected to the site (Appendix 6).

Regulatory Contacts

2.5.2 The following regulatory authorities were contacted as part of the site investigation programme:

- The Environment Agency, Colvedene Court, Wessex Way, Colden Common, Winchester, Hampshire. SO21 1WP. Tel: 01962 713267. Fax: 01962 841 573
- Havant Borough Council, Environmental Health and Housing Service, Civic Office, Havant, Hampshire. PO9 2AX. Tel: 01705 446669.

2.6 Site History

2.6.1 The development of the site and surrounding area has been reviewed by reference to historical county series and ordnance survey plans provided by Landmark Information Group and the Bodleian library. The historical development of the site is summarised in Table 2.4, with historical plans included in Appendix 2.

Table 2.4

Source	Relevant Information
1870 6" County Series	The site is shown to be part of the Emsworth Gas Works
1898 6" County Series	One gas holder is shown on the north-eastern boundary of the site.
1908 25" County Series	A second gas-holder has been constructed near the north-western boundary of the site. Two buildings are shown in the south-west corner of the site, with one small building being located near the centre of the site.
1932 25" County Series	The gas-holder at the western end of the site has been removed.
1942 6" County Series	A large gas-holder has been constructed in the centre of the site.
1953 1: 2500 Ordnance Survey	The small gas-holder on the north-eastern boundary of the site and the small building near the centre have been removed. An additional building has been constructed in the north-west corner of the site.
1969 1:2500 Ordnance Survey	A small structure has been added adjacent to the gas holder in the eastern part of the site.

SECTION 3

SITE INVESTIGATION

3 SITE INVESTIGATION

3.1 On Site Activities

3.1.1 The investigation comprised the excavation of a total of 7 No. trial pits (TCTP1 to TCTP7) using the back hoe of a JCB 3CX excavator and 4 No. boreholes using a water flush rotary coring drill rig (TCBH1 to TCBH4) during the 14th and 15th of August 2000. Trial pits were extended, where possible, until proof of Natural Ground. Boreholes were excavated to a maximum of 6.5 m below ground level (bgl). Representative soil samples were collected and submitted for laboratory chemical analyses. Sample collection, storage and analyses were undertaken in accordance with the LPH Guidance Document, Version 2.4¹.

3.1.2 Trial pits were located to prove historical structures and to investigate the nature of the Made Ground/Natural Ground at the site. Boreholes were positioned across the site to monitor the depth and quality of possible groundwater and determine its flow direction. Subsequent to the site investigation, a topographical survey of all trial pit and borehole locations was undertaken, with locations and elevations shown on Figure 2.

3.2 Ground Conditions

3.2.1 All ground conditions encountered were logged by an engineer from PB in accordance with the requirements of BS5930 (1999)³. Detailed logs and photographs of trial pits are provided in Appendix 3. A summary of encountered ground conditions is given below.

Made Ground

3.2.2 Made Ground typically comprised sandy silts and gravels of chert and limestone with brick, coke and coal fragments. Occasional Clay layers were also present. The Made Ground at the site formed a laterally continuous layer ranging in thickness from 0.6m -3.87m.

3.2.3 Olfactory and visual evidence of contamination within the Made Ground was identified at the following locations:

- evidence of spent oxide and/or foul lime was identified in trial pits TCTP6 and TCTP2;
- evidence for oily hydrocarbons including tar and/or phenol was identified in TCBH4.

Natural Ground

3.2.4 Natural Ground was encountered in all excavations with the exceptions of trial pits TCTP2, TCTP3, TCTP4, TCTP5 and TCTP7, where concrete obstructions prevented progress of the excavation.

- 3.2.5 Natural Ground typically comprised weathered, brown and grey mottled London Clay, with occasional horizons of clay, claystone litho-relicts, fossil fragments and gravel. In boreholes TCBH 2 and TCBH 3 alluvium deposits were encountered underlying the Made Ground. The Alluvium consisted of clay, gravel and peat deposits with a total thickness of between 1.2m (TCBH 3) to 2.7m (TCBH 2). London Clay was found to underlie the Alluvium across the site. Brickearth was found to underlie the Made Ground in trial pit TCTP 6, with a measured thickness of 1.9m.
- 3.2.6 No olfactory or visual evidence of contamination was identified within the Natural Ground.
- 3.3 Buried Structures**
- 3.3.1 A circular structure (possibly former gas holder No. TC1) was identified in trial pit TCTP4 (Photograph 4, Appendix 3). The concrete base was encountered at approximately 3.9m bgl, with the thickness of the holder wall measured at 0.35m. Fill comprised silt and clay with coal dust and areas of gravel and sand (Photographs, Appendix 3). Olfactory evidence of contamination was not observed within the holder. The total volume of the fill within the holder was estimated at approximately 440m³, with the volume of the brickwork wall structure was estimated at approximately 100m³.
- 3.3.2 Trial pits TCTP2, TCTP3, TCTP5 and TCTP7 encountered concrete foundations at depths ranging from 0.5m to 1.4m bgl (Photographs 1, 5 and 6, Appendix 3). The overall volume of the hardstanding encountered in trial pits during the site investigation is estimated at 13m³, with an estimated 28m³ of overlying fill.
- 3.4 Groundwater**
- 3.4.1 Groundwater was encountered within borehole TCBH4 in the Made Ground at 1.4m bgl and boreholes TCBH2 and TCBH3 in Natural Ground at a depth of around 2.5m bgl. Groundwater was not observed in borehole TCBH1 during the initial site investigation, however, subsequent groundwater monitoring indicated a water table at approximately 1.0 m bgl.
- 3.4.2 Boreholes TCBH1 to 4 were installed with standpipe piezometers located within Made Ground and Natural Ground. Groundwater levels were measured during the initial site investigation and on two subsequent site monitoring visits on the 24th of August and 7th of September 2000, with groundwater levels being shown in Table 3.1. The depths to groundwater for the boreholes TCBH1 to TCBH3 are shown relative to Ordnance Datum and are based on a survey of the site carried out in August 2000. The access to the borehole TCBH4 was not available during the site survey, depths to the groundwater are, therefore, given relative to ground level.
- 3.4.3 Results from groundwater measurements indicate the general flow of groundwater beneath the site to be to the south east, towards the River Ems at a gradient of approximately 0.03.

Table 3.1 Result of Groundwater Monitoring Visit.

Location	Depth to Groundwater Surface	
	m bgl	m AOD
Visit	07/09/2000	
TCBH1	1.0	4.2
TCBH2	2.9	2.5
TCBH3	2.4	2.6
TCBH4	1.3	-

3.5 Gas Emissions

3.5.1 Gas monitoring of boreholes TCBH1 to 4 during the monitoring visit indicated no detectable Methane. Carbon Dioxide levels in boreholes TCBH3 and TCBH4 measured 0.2% and 0.3% respectively, levels in borehole TCBH2 were slightly higher at 1.5% and potentially related to the discontinuous peat band layer 0.3m thick within the installation response zone. Oxygen levels in boreholes TCBH3 and TCBH4 were measured at 20.1 and 20.2% respectively and 16% in borehole TCBH2.

3.5.2 It should be noted that gas measurements were made from boreholes installed principally for the sampling and monitoring of groundwater. A dedicated gas survey has not been undertaken.

3.5.3 Information provided within the DETR Document 'Radon:Guidance on Protective Measures For New Dwellings'⁸ indicates that the site is located within an area where a detailed geological assessment should be carried out to determine the level of radon protection that should be provided for new developments.

3.6 Scheduled Chemical Analyses

3.6.1 A total of 14 soil samples were taken during the excavation of the trial pits, with 22 samples being taken during the excavation of the boreholes. A selected number of samples were scheduled for analysis comprising the following range of determinands:

- LPH Suite; comprising contaminants commonly found on former gasworks and coal carbonisation sites, including – total, complex and easily liberatable cyanides, phenolic compounds, metals (arsenic, boron, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc), polycyclic aromatic hydrocarbons (PAH's), ammonia, sulphate and sulphur.
- Total Petroleum Hydrocarbons (TPH); hydrocarbon compounds in the gasoline and/or diesel range - measured where appropriate.

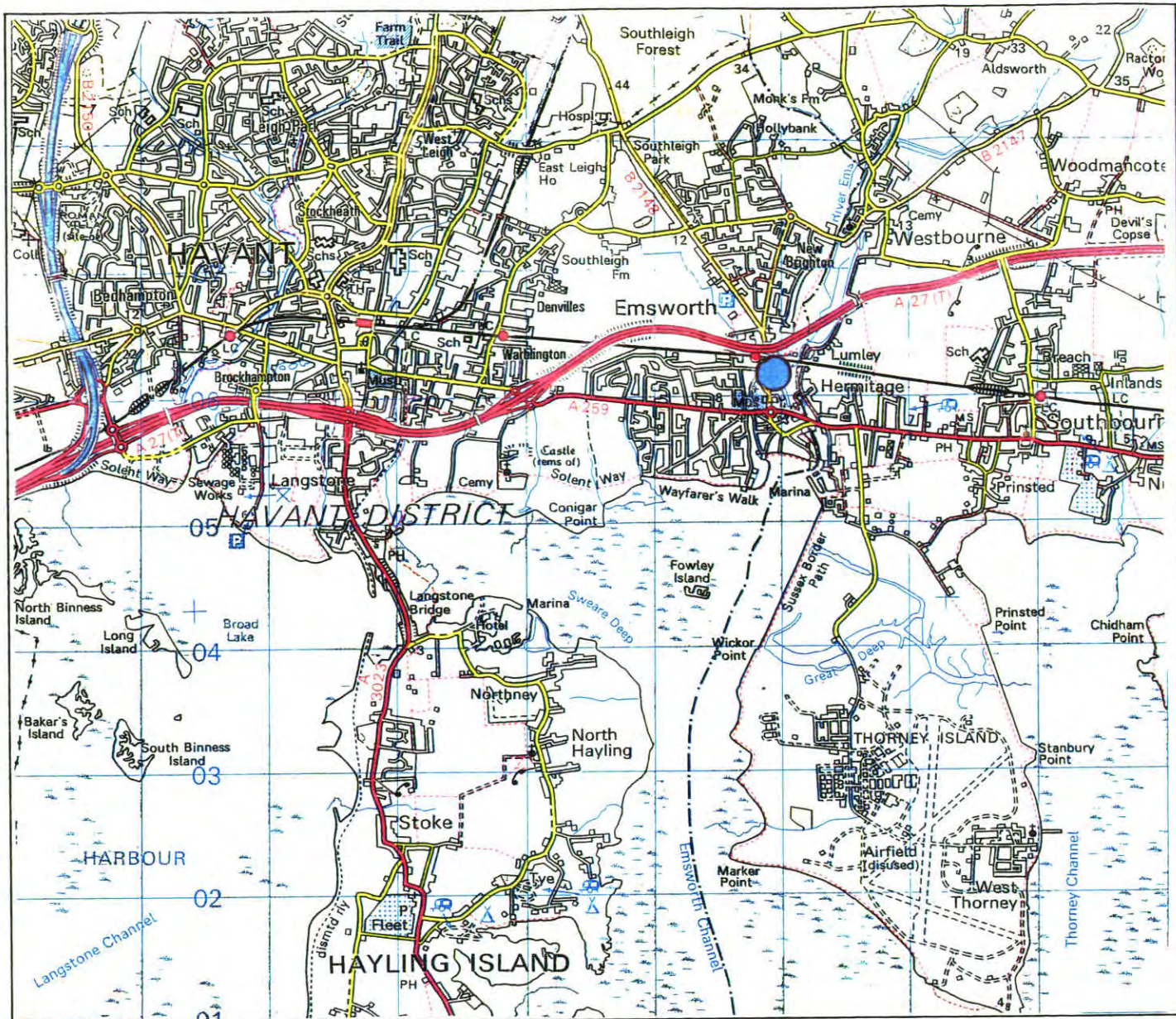
- Volatile Organic Compounds (VOC's) – common organic solvents including BTEX (Benzene, Toluene, Ethylbenzene, Xylene) compounds associated with petroleum hydrocarbon contamination.

- 3.6.2 From the soil samples collected during the site investigation a total number of 19 were scheduled for analysis of the LPH suite, with 7 being analysed for TPH and 2 for VOC. Three soil samples were analysed for the total organic carbon fraction using CHN analysis.
- 3.6.3 Three soil samples with relatively high contaminant concentrations were subjected to leachability tests, with the leachates being tested for the LPH suite and cyanide to a low detection limit of 1 µg/l low level.
- 3.6.4 Groundwater samples were taken during the site investigation and on two subsequent monitoring visits on the 24th of August and 7th of September 2000. The samples included a trip blank, with samples taken during the site investigation and on the 24th August being analysed for determinands specified in the LPH suite. Additional parameters included total hardness, TPH, VOC and nitrate, with free and complex cyanides being analysed to a detection limit of 1 µg/l.
- 3.6.5 All samples were analysed by Environmental Analysis Limited of Hastings, East Sussex. The laboratory is NAMAS accredited and appears on the LPH approved laboratories list.

REFERENCES

- ¹ Lattice Property Holdings Ltd: Guidance for Assessing and Managing Potential Contamination on Former Gasworks and Associated Sites (Version 2.4), 1999.
- ² British Geological Survey: Sheet 316 Fareham (Drift Edition), 1:50 000 scale.
- ³ Institute of Geological Sciences and Southern Water Authorities: Hydrogeological Map of South Downs and Parts of the Weald.
- ⁴ British Standards Institute: Code of Practice for Site Investigations BS5930: 1999.
- ⁵ ISO 9001 (BSI Certificate No. Q06143).
- ⁶ National Rivers Authority: Policy and Practice for the Protection of Groundwater Regional Appendix, (Southern Regional Appendix).
- ⁷ PB Kennedy & Donkin Limited: Desk Top Survey Interpretative Report, North Street, Emsworth, Hampshire, November 1998
- ⁸ Department of Environment Transport and Regions BRE document: Radon: Guidance on Protective Measures for New Dwellings.

FIGURES



Key:-

Site Location 



Lattice Property Holdings Ltd
69, North Street
Emsworth
Hampshire

Figure 1

Project No:
BEN040102E/100.1

Scale: 1:50 000

Drawn By: EB



106200
474960

106200
475000

TRANSCO EXPLORATORY HOLE LOCATIONS		
	Eastings	Northings
TC-TP1	474936.2	106110.0
TC-TP2	474936.5	106154.0
TC-TP3	474941.2	106155.4
TC-TP4	474994.1	106144.0
TC-TP5	474985.8	106110.6
TC-TP6	475001.2	106124.2
TC-TP7	474933.8	106141.3
TC-BH1	474939.9	106149.7
TC-BH2	475004.4	106151.9
TC-BH3	474978.9	106108.9
TC-BH4	474915.5	106146.8

- KEY TO EXPLORATORY HOLES**
- TC-BH4 BOREHOLE (INSTALLED)
 - (NI) BOREHOLE (NOT INSTALLED)
 - TC-TP4 TRAIL PIT/TRENCH
 - SITE CENTRE: 474963.3E, 106132.0N

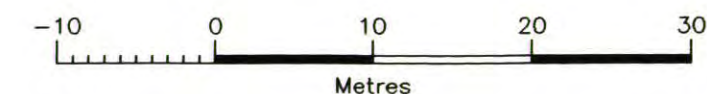
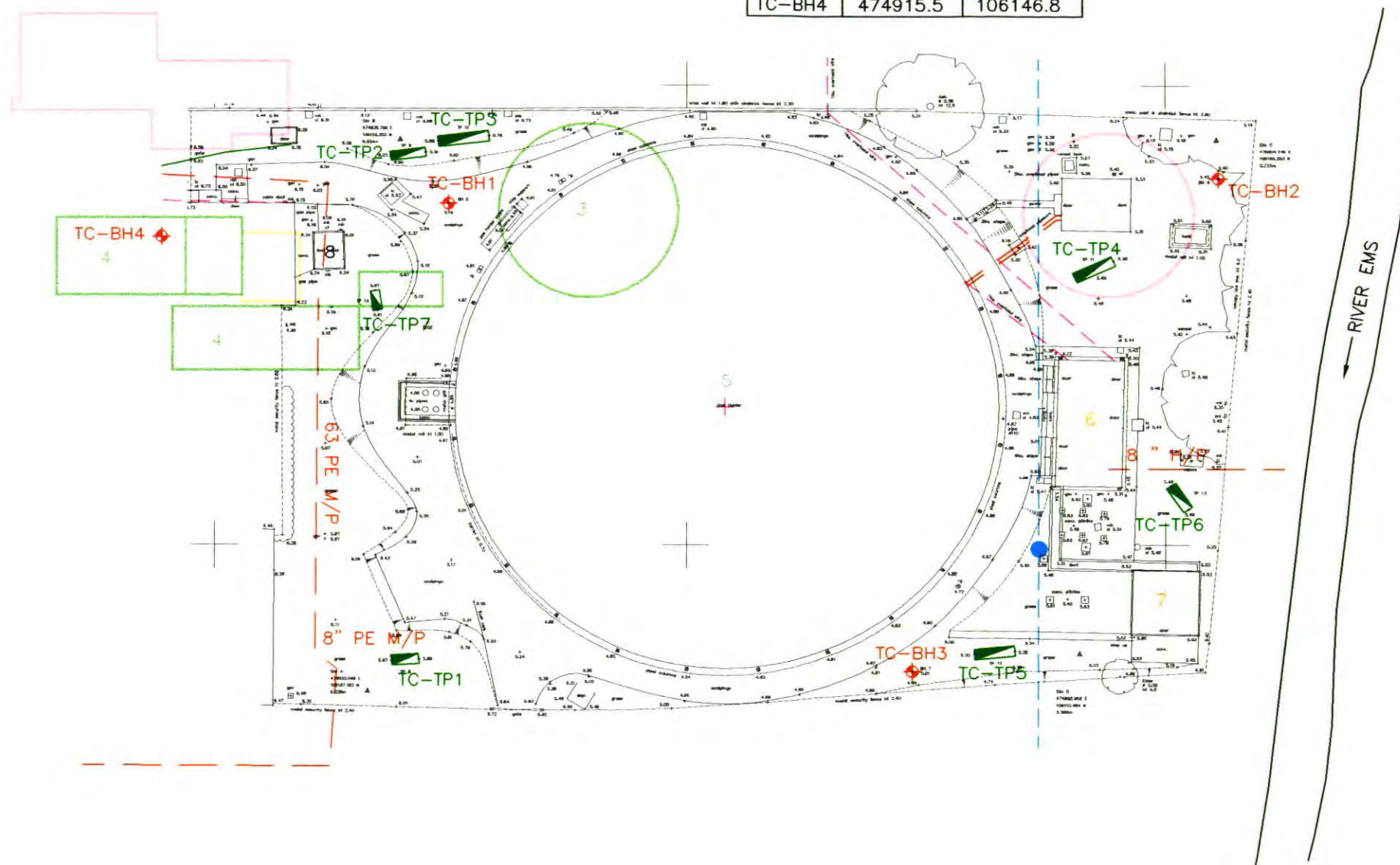
- KEY TO SERVICES**
- BT OVERHEAD
 - GAS
 - FOUL DRAINAGE

- KEY TO HISTORICAL STRUCTURES**
- PRESENT 1898
 - PRESENT 1908
 - PRESENT 1932
 - PRESENT 1942
 - PRESENT 1970

- GAS WORKS BUILDING (Unidentified use)
- GAS HOLDER No. TC1
- GAS HOLDER No. TC2
- GAS WORKS BUILDING (Unidentified use)
- GAS HOLDER No. TC3
- GOVERNOR HOUSE
- BOILER HOUSE
- BOOSTER HOUSE

106160
474880

106120
474880



REV	DATE	BY	CHKD	NOTES



PB Kennedy & Donkin Limited
A Parsons Brinckerhoff Company

Queen Victoria House, Redland Hill, Bristol, United Kingdom, BS6 6US
Tel: (0117) 9739090 Fax: (0117) 9237479

- CLIENT/PROJECT**
LATTICE PROPERTY HOLDINGS LTD
TRANSCO OPERATIONAL AREA
NORTH STREET, EMSWORTH
- TITLE**
SITE LAYOUT PLAN SHOWING
HISTORICAL INFORMATION,
SERVICES AND EXPLORATORY
HOLE LOCATIONS.

- DATE** 04/10/00 **PRODUCED BY** CEW
- SCALE** 1:500 **CHECKED**
- CAD REF** N:\BEN\BL\059\EMSWORTH\DWGS\TC-FAC2.DWG **APPROVED**
- DRAWING NUMBER**

FIGURE 2

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PHOTOGRAPHS



Photograph 1: Looking north from the southwestern corner of the site.



Photograph 2: Transco site area looking east along southern boundary, with doublegates at site entrance.



Photograph 3: Transco area looking east.



Photograph 4: Looking west towards Transco buildings along northern boundary of site.



Photograph 5: Transco area – booster house.



Photograph 6: Looking towards the gasholder from the northeastern corner of the site.



Photograph 7: Gasholder No. TC3..



Photograph 8: Transco area looking east along northern boundary.



Photograph 9: Looking north along the eastern boundary of the site.



Photograph 10: Looking north from the southeast.



Photograph 11: Transco area looking northeast at the former structure base.



Photograph 12: Showing gasholder in the southeast.



Photograph 13: Transco area looking southwest at Transco operational structures.



Photograph 14: Transco area looking southeast toward adjacent residential property.

APPENDICES

APPENDIX 1

**LANDMARK ENVIROCHECK
REPORT**

**EnviroCheck Report on:**

Property Code 9643
69 North Street
EMSWORTH
Hampshire

National Grid Reference :

474963, 106137

Prepared For :

B G plc (Property Division)
Aviary Court
Wade Road
BASINGSTOKE
Hants
RG24 8GZ

Your Reference :

Paul Walker



Summary

Environmental Setting

Industrial Setting

Useful Contacts

BGS Borehole Order Form

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does to the potential sources of contamination. For this reason, Landmark's Site Sensitivity Data Sheet places great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from English Nature (and the Scottish and Welsh equivalents), the Environment Agency (and the Scottish equivalent) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The data sheet is produced by querying the legend database to 1km from a single point provided by the client.

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Data Type	50m	250m	500m	1000m
Water				
Water Abstractions				
Discharge Consents		✓ 7		✓ 8
Red List Discharge Consents				
Prosecutions relating to Controlled Waters				
Pollution Incidents to Controlled Waters		✓ 3	✓ 6	✓ 9
Nearest Surface Water Feature		✓		
Waste				
Landfill Sites				
BGS Recorded Landfill Sites				
Waste Treatment or Disposal Sites				
Waste Transfer Sites				
IPC Registered Waste Sites				
Statutory / Authorisation				
Integrated Pollution Controls				
Air Pollution Controls				
Registered Radioactive Substances				
Prosecutions relating to Authorised Processes				
Enforcement and Prohibition Notices				
Planning Hazardous Substance Consents	✓ 1			
Planning Hazardous Substance Enforcements				
Other				
Planning Applications (of possible contaminative uses)		✓ 2	✓ 1	✓ 1
BGS Recorded Mineral Sites				
BGS Boreholes		✓ 13	✓ 24	✓ 29
Sites of Special Scientific Interest				✓ 1
Potentially Contaminative Industrial Use			✓ 2	✓ 2

Water Abstractions identified, whose centres are more 1000 metres (but less than 2000 metres) from the centre of the site: 2



Map ID	Details	Estimated Distance from Site	Source	NGR
-	Water Abstraction Operator Mr Nicholas Rule Licence No 511005 Location Millhouse, Westbourne Abstraction Watercress / Fish Farm Source River Daily Rate 45 cubic metres Yearly Rate 3409 cubic metres Details River Lavant?	1970	EA	475800 107900
-	Water Abstraction Operator Windsor House Natural Water Company Ltd Licence No 27/169 Location Southbourne Abstraction General Industrial Source Groundwater Daily Rate 100 cubic metres Yearly Rate 30000 cubic metres Details H5 Chalk	1820	EA	476800 106500
-	Most Sensitive Groundwater Resource Major Aquifer with possible Drift Deposits	-	EA/SEPA	-
-	Radon Affected Area Less than 1% of homes are above the Action Level	-	NRPB	-
1	Discharge Consent Operator Mr C J Curry Property Type N/A Location White House, Horndean Road, Emsworth, Hampshire Catchment Area N/A Discharge Reference UV-61/787 Issued 3rd July 1964 Discharge Type Sewage Effluent Discharge Freshwater Stream/River Environment Received Water Not Given	900	EA	474400 106900
2	Discharge Consent Operator L Chandler Esq A R I B A Property Type N/A Location Houses At Fosters Quay, King Street, Emsworth, Hampshire Catchment Area N/A Discharge Reference 151/4/1/74 Issued 13th March 1962 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	790	EA	475300 105400
3	Discharge Consent Operator L Chandler Esq A R I B A Property Type N/A Location King Street, Emsworth, Hampshire Catchment Area N/A Discharge Reference 151/4/1/74 Issued 13th March 1962 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	750	EA	475300 105500
4	Discharge Consent Operator L Chandler Esq A R I B A Property Type N/A Location King Street, Emsworth, Hampshire Catchment Area N/A Discharge Reference 151/4/1/74 Issued 13th March 1962 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	680	EA	475300 105500



Map ID	Details	Estimated Distance from Site	Source	NGR
4	Discharge Consent Operator L Chandler Esq A R I B A Property Type N/A Location King Street, Emsworth, Hampshire Catchment Area N/A Discharge Reference 151/4/1/74 Issued 13th March 1962 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	680	EA	475300 105500
5	Discharge Consent Operator L Chandler Esq A R I B A Property Type N/A Location King Street, Emsworth, Hampshire Catchment Area N/A Discharge Reference 151/4/1/74 Issued 13th March 1962 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	640	EA	475300 105600
6	Discharge Consent Operator Seaward Homes Ltd Property Type N/A Location Western Docks Station, Lumley Road, Emsworth, Hampshire Catchment Area N/A Discharge Reference P1512/S/88 Issued 22nd March 1988 Discharge Type Surface Water Discharge Saline Estuary Environment Received Water Not Given	550	EA	475400 105800
7	Discharge Consent Operator British Gas (Southern) Plc Property Type N/A Location North Street, Emsworth, Hampshire Catchment Area N/A Discharge Reference PC115/61/K91 Issued 1st April 1991 Discharge Type Unknown Discharge Freshwater Stream/River Environment Received Water Not Given	60	EA	475000 106200
7	Discharge Consent Operator Beta Marine Ltd Property Type N/A Location 71 North Street, Emsworth, Hampshire Catchment Area N/A Discharge Reference 321/14/1/86 Issued 21st November 1963 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	60	EA	475000 106200
8	Discharge Consent Operator Beta Marine Ltd Property Type N/A Location Emsworth, Hampshire Catchment Area N/A Discharge Reference 321/14/1/86 Issued 21st November 1963 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	90	EA	475000 106200



Map ID	Details	Estimated Distance from Site	Source	NGR
8	Discharge Consent Operator Havant And Waterloo U D C Property Type N/A Location Highway , Seagull Lane, Emsworth , Hampshire Catchment Area N/A Discharge Reference 62/1/523 Issued 17th April 1968 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	90	EA	475000 106200
9	Discharge Consent Operator The Standen House Companies Property Type N/A Location 13-23 North Street, Emsworth , Hampshire Catchment Area N/A Discharge Reference PC37/559/S298/81 Issued 27th May 1981 Discharge Type Surface Water Discharge Saline Estuary Environment Received Water Not Given	80	EA	475000 106100
10	Discharge Consent Operator Southern Water Services Ltd Property Type N/A Location Sewage Pumping Station, Lumley Road, Emsworth, Hampshire Catchment Area N/A Discharge Reference 62/1/1125 Issued 15th November 1972 Discharge Type Sewage Effluent Discharge Freshwater Stream/River Environment Received Water Not Given	240	EA	475200 106200
10	Discharge Consent Operator Southern Water Services Ltd Property Type N/A Location Lumley Road P S , Emsworth, West Sussex Catchment Area N/A Discharge Reference A291/S/89 Issued 8th July 1993 Discharge Type Sewage Effluent Discharge-Storm Effluent Discharge Freshwater Stream/River Environment Received Water Not Given	240	EA	475200 106200
11	Discharge Consent Operator A C Figgins Property Type N/A Location Fosters Quay, Emsworth , Hampshire Catchment Area N/A Discharge Reference 62/1/20 Issued 30th July 1965 Discharge Type Surface Water Discharge Freshwater Stream/River Environment Received Water Not Given	700	EA	475300 105500
29	Site of Special Scientific Interest Details Site of Special Scientific Interest	600	-	474900 105500
30	BGS Borehole BGS Reference SU70NE 5 Drilled Length 5 metres Bore Name A27 HAVANT TO CHICHESTER BH40	270	BGS	475000 106400
31	BGS Borehole BGS Reference SU70NE 6 Drilled Length 5 metres Bore Name A27 HAVANT TO CHICHESTER BH41	240	BGS	475000 106400



Map ID	Details		Estimated Distance from Site	Source	NGR
32	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 7 5 metres A27 HAVANT TO CHICHESTER BH42	330	BGS	475100 106400
33	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 8 25 metres A27 HAVANT TO CHICHESTER BH43	270	BGS	475100 106400
34	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 10 10 metres A27 HAVANT TO CHICHESTER BH45	450	BGS	475200 106500
34	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 11 20 metres A27 HAVANT TO CHICHESTER BH46	450	BGS	475200 106500
35	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 12 20 metres A27 HAVANT TO CHICHESTER BH47	410	BGS	475200 106500
35	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 58 2 metres A27 HAVANT TO CHICHESTER	410	BGS	475200 106500
36	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 14 10 metres A27 HAVANT TO CHICHESTER BH49	500	BGS	475300 106500
37	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 15 10 metres A27 HAVANT TO CHICHESTER BH50	550	BGS	475300 106600
37	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 16 20 metres A27 HAVANT TO CHICHESTER BH51	550	BGS	475300 106500
37	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 17 10 metres A27 HAVANT TO CHICHESTER BH52	550	BGS	475300 106500
38	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 18 5 metres A27 HAVANT TO CHICHESTER BH53	620	BGS	475400 106600
39	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 19 20 metres A27 HAVANT TO CHICHESTER BH54	880	BGS	475600 106800
40	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 20 10 metres A27 HAVANT TO CHICHESTER BH55	880	BGS	475600 106800
40	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 63 3 metres A27 HAVANT TO CHICHESTER	880	BGS	475600 106800
41	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 21 18 metres A27 HAVANT TO CHICHESTER BH56	860	BGS	475600 106700
42	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 59 2 metres A27 HAVANT TO CHICHESTER	520	BGS	475300 106500



Map ID	Details		Estimated Distance from Site	Source	NGR
43	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 60 2 metres A27 HAVANT TO CHICHESTER	590	BGS	475300 106600
44	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 62 2 metres A27 HAVANT TO CHICHESTER	860	BGS	475600 106800
45	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 69 78.63 metres THE LAUNDRY 316/57 EMSWORTH	980	BGS	475100 107100
46	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 86 93.26 metres EMSWORTH 316/29	800	BGS	475600 105700
47	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 87 9.44 metres EMSWORTH, NEW BRIDGE BH2-5	290	BGS	475100 105900
48	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 90 6 metres EMSWORTH RELIEF SEWER BH3	970	BGS	475600 105400
49	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 91 6 metres EMSWORTH RELIEF SEWER BH4	830	BGS	475600 105600
50	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 92 6 metres EMSWORTH RELIEF SEWER BH5	750	BGS	475600 105800
51	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 93 6 metres EMSWORTH RELIEF SEWER BH6	790	BGS	475700 105800
52	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 94 6 metres EMSWORTH RELIEF SEWER BH7	750	BGS	475700 105900
53	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 96 6 metres EMSWORTH RELIEF SEWER BH9	710	BGS	475700 106200
54	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 97 1 metres EMSWORTH RELIEF SEWER BH10	670	BGS	475600 106200
55	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 98 1 metres EMSWORTH RELIEF SEWER BH11	440	BGS	475400 106200
56	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 100 6 metres EMSWORTH RELIEF SEWER BH13	150	BGS	475000 106300
57	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 101 6 metres EMSWORTH RELIEF SEWER BH14	190	BGS	475000 106300
58	BGS Borehole BGS Reference Drilled Length Bore Name	SU70NE 102 5 metres EMSWORTH RELIEF SEWER BH15	370	BGS	475100 106500



Map ID	Details	Estimated Distance from Site	Source	NGR
59	BGS Borehole BGS Reference SU70NE 103 Drilled Length 5 metres Bore Name EMSWORTH RELIEF SEWER BH16	610	BGS	475200 106700
60	BGS Borehole BGS Reference SU70NE 104 Drilled Length 5 metres Bore Name EMSWORTH RELIEF SEWER BH17	750	BGS	475200 106900
61	BGS Borehole BGS Reference SU70NE 105 Drilled Length 5 metres Bore Name EMSWORTH RELIEF SEWER BH18	870	BGS	475300 107000
62	BGS Borehole BGS Reference SU70NE 9 Drilled Length 5 metres Bore Name A27 HAVANT TO CHICHESTER BH44	350	BGS	475200 106400
63	BGS Borehole BGS Reference SU70NE 13 Drilled Length 10 metres Bore Name A27 HAVANT TO CHICHESTER BH48	420	BGS	475200 106500
64	BGS Borehole BGS Reference SU70NE 61 Drilled Length 2 metres Bore Name A27 HAVANT TO CHICHESTER	700	BGS	475500 106600
65	BGS Borehole BGS Reference SU70NE 95 Drilled Length 6 metres Bore Name EMSWORTH RELIEF SEWER BH8	720	BGS	475700 106000
66	BGS Borehole BGS Reference SU70NE 99 Drilled Length 8 metres Bore Name EMSWORTH RELIEF SEWER BH12	260	BGS	475200 106300
67	BGS Borehole BGS Reference SU70NW 25 Drilled Length 6 metres Bore Name A27 HAVANT TO CHICHESTER BH21	910	BGS	474100 106500
68	BGS Borehole BGS Reference SU70NW 26 Drilled Length 6 metres Bore Name A27 HAVANT TO CHICHESTER BH22	890	BGS	474100 106500
69	BGS Borehole BGS Reference SU70NW 27 Drilled Length 3 metres Bore Name A27 HAVANT TO CHICHESTER BH23	700	BGS	474400 106500
70	BGS Borehole BGS Reference SU70NW 28 Drilled Length 3 metres Bore Name A27 HAVANT TO CHICHESTER BH24	690	BGS	474400 106500
71	BGS Borehole BGS Reference SU70NW 29 Drilled Length 25 metres Bore Name A27 HAVANT TO CHICHESTER BH25	440	BGS	474600 106400
71	BGS Borehole BGS Reference SU70NW 30 Drilled Length 20 metres Bore Name A27 HAVANT TO CHICHESTER BH26	440	BGS	474600 106400
72	BGS Borehole BGS Reference SU70NW 31 Drilled Length 20 metres Bore Name A27 HAVANT TO CHICHESTER BH27	420	BGS	474600 106400
72	BGS Borehole BGS Reference SU70NW 32 Drilled Length 25 metres Bore Name A27 HAVANT TO CHICHESTER BH28	420	BGS	474600 106400



Map ID	Details	Estimated Distance from Site	Source	NGR
72	BGS Borehole BGS Reference SU70NW 47 Drilled Length 2 metres Bore Name TRIAL PIT 206	420	BGS	474600 106400
72	BGS Borehole BGS Reference SU70NW 48 Drilled Length 2 metres Bore Name TRIAL PIT 207	420	BGS	474600 106400
73	BGS Borehole BGS Reference SU70NW 33 Drilled Length 5 metres Bore Name A27 HAVANT TO CHICHESTER BH29	310	BGS	474800 106400
74	BGS Borehole BGS Reference SU70NW 34 Drilled Length 5 metres Bore Name A27 HAVANT TO CHICHESTER BH30	300	BGS	474800 106400
75	BGS Borehole BGS Reference SU70NW 35 Drilled Length 20 metres Bore Name A27 HAVANT TO CHICHESTER BH31	250	BGS	474900 106400
75	BGS Borehole BGS Reference SU70NW 37 Drilled Length 20 metres Bore Name A27 HAVANT TO CHICHESTER BH34	250	BGS	474900 106400
75	BGS Borehole BGS Reference SU70NW 39 Drilled Length 20 metres Bore Name A27 HAVANT TO CHICHESTER BH36	250	BGS	474900 106400
75	BGS Borehole BGS Reference SU70NW 41 Drilled Length 30 metres Bore Name A27 HAVANT TO CHICHESTER BH38	250	BGS	474900 106400
75	BGS Borehole BGS Reference SU70NW 49 Drilled Length 5 metres Bore Name TRIAL PIT 208	250	BGS	474900 106400
75	BGS Borehole BGS Reference SU70NW 40 Drilled Length 30 metres Bore Name A27 HAVANT TO CHICHESTER BH37	250	BGS	474900 106400
75	BGS Borehole BGS Reference SU70NW 38 Drilled Length 35 metres Bore Name A27 HAVANT TO CHICHESTER BH35	250	BGS	474900 106400
76	BGS Borehole BGS Reference SU70NW 42 Drilled Length 6 metres Bore Name A27 HAVANT TO CHICHESTER BH39	320	BGS	474900 106400
76	BGS Borehole BGS Reference SU70NW 195 Drilled Length 6 metres Bore Name ENSWORTH RELIEF SEWER BH22	320	BGS	474900 106500
77	BGS Borehole BGS Reference SU70NW 193 Drilled Length 19 metres Bore Name ENSWORTH NEW BRIDGE BH1	250	BGS	475000 105900
78	BGS Borehole BGS Reference SU70NW 194 Drilled Length 3 metres Bore Name ENSWORTH RELIEF SEWER BH21	220	BGS	474900 106300
78	BGS Borehole BGS Reference SU70NW 36 Drilled Length 20 metres Bore Name A27 HAVANT TO CHICHESTER BH33	220	BGS	474900 106300



Map ID	Details	Estimated Distance from Site	Source	NGR
12	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Unknown Location: Bath Road Pond, Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Petrol Note: Report Of Petrol On Pond Incident Date: 6th February 1993 Incident Reference: 571 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	560	EA	474800 105600
13	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Other General Premises Location: Mill Pond, Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Other Oil Note: Oil; Domestic/Residential Incident Date: 15th January 1994 Incident Reference: 841 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	330	EA	474800 105900
14	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Water Company Sewage: Surface Water Outfall Location: Havant Road, Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Other Oil Note: Oil On Surface Of Mill Pond Incident Date: 24th November 1993 Incident Reference: 949 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	340	EA	474800 105900
15	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Private Sewage (Non-PLC): Other Location: Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Other Oil Note: Oil On Mill Pond; Private Sewage (Non-Plc): Surface Water Outfall Incident Date: 15th January 1994 Incident Reference: 1037 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	840	EA	474200 105800
16	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Other General Premises Location: Southleigh Stream, Emsworth Authority: Environment Agency Southern Region Pollutant: Miscellaneous - Unknown Note: Creamy Scum; Miscellaneous Premises: Unknown Incident Date: 25th August 1995 Incident Reference: 2025 Catchment Area: N/A Received Water: N/A Cause: Miscellaneous/Other Pollution Type Severity: Category 3 - Minor Incident	340	EA	474900 105800



Map ID	Details	Estimated Distance from Site	Source	NGR
17	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Other General Premises Location: Mill Pond Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Diesel (Including Agricultural) Note: Oil (Diesel) On Mill Pond; Domestic/Residential Incident Date: 31st August 1994 Incident Reference: 1446 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	430	EA	474700 105800
18	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Miscellaneous Premises: Other Location: South Street, Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Unknown Note: Oil From Stream Entering Mill Pond Incident Date: 17th January 1996 Incident Reference: 796031 Catchment Area: N/A Received Water: N/A Cause: Unknown Severity: Category 3 - Minor Incident	540	EA	474900 105600
19	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Miscellaneous Premises: Unknown Location: Emsworth Authority: Environment Agency Southern Region Pollutant: Miscellaneous - Unknown Note: Discoloured Discharge From S/W Drain Incident Date: 17th April 1996 Incident Reference: 1636 Catchment Area: N/A Received Water: N/A Cause: Unknown Severity: Category 3 - Minor Incident	140	EA	475000 106000
20	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Other General Premises Location: Marina Authority: Environment Agency Southern Region Pollutant: Miscellaneous - Colour Note: Green Discharge; Miscellaneous Premises: Other Incident Date: 28th February 1995 Incident Reference: 1229 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	950	EA	475400 105300
21	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Domestic/Residential Location: A259, Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Diesel (Including Agricultural) Note: Oil On Surface Of River Incident Date: 20th September 1992 Incident Reference: 305 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	510	EA	475300 105800



Map ID	Details	Estimated Distance from Site	Source	NGR
22	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Unknown Location: Harbour Way, Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Unknown Note: Oil Incident Date: 24th September 1992 Incident Reference: 510 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	610	EA	475300 105600
23	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Boats/Ships Location: Dolphin Quay Authority: Environment Agency Southern Region Pollutant: Oils - Diesel (Including Agricultural) Note: Oil On The Water Incident Date: 12th November 1993 Incident Reference: 782 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	520	EA	475300 105700
23	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Unknown Location: Mill Pond Downstream River Ems, Emsworth Authority: Environment Agency Southern Region Pollutant: Oils - Diesel (Including Agricultural) Note: Diesel Pollution Incident Date: 30th November 1993 Incident Reference: 802 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	520	EA	475300 105700
24	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Boats/Ships Location: Outfall To Harbour Authority: Environment Agency Southern Region Pollutant: Oils - Diesel (Including Agricultural) Note: Oil Discharge From Boat In River Ems Incident Date: 20th October 1992 Incident Reference: 515 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	490	EA	475200 105700
25	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Other Transport Location: Location Description Not Available Authority: Environment Agency Southern Region Pollutant: Oils - Other Oil Note: Oil Coming Out Of Railway Culvert; Rail Incident Date: 22nd April 1995 Incident Reference: 1290 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	190	EA	475000 106300



Map ID	Details	Estimated Distance from Site	Source	NGR
26	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Other Transport Location: Location Description Not Available Authority: Environment Agency Southern Region Pollutant: Oils - Other Oil Note: Oil Incident Date: 31st January 1992 Incident Reference: 280 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	80	EA	475000 106200
27	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Ships/Boats Location: Opposite Royal Oak, Emsworth Authority: Environment Agency Southern Region Pollutant: Chemicals - Paints / Dyes Note: White Milky Substance In Mill Pond Incident Date: 23rd January 1997 Incident Reference: 797035 Catchment Area: N/A Received Water: N/A Cause: Industrial Chemicals Severity: Category 3 - Minor Incident	620	EA	475400 105700
28	Pollution Incident to Controlled Waters Name: Unknown Operator Property Type: Construction Location: Up Stream Of, Emsworth Mill Authority: Environment Agency Southern Region Pollutant: Oils - Diesel (Including Agricultural) Note: Oil On The R.Ems Incident Date: 15th April 1997 Incident Reference: 2099 Catchment Area: N/A Received Water: N/A Cause: Oils/Related Products Severity: Category 3 - Minor Incident	390	EA	475200 105800
79	Planning Hazardous Substance Consent Name: British Gas Plc Location: Gas Holder Station, Palmers Road, Emsworth, Hampshire PO10 7DL Authority: Havant Borough Council Application Ref.: 92/53484/1/HDC Hazardous Substance: Part C, Flammable Substance (Not in Parts A&B). Gas or gases flammable in air, when held as a gas, where amount held is >= 15tonnes Amount: 48 tonnes Application Date: 28th October 1992 Decision: 23rd February 1992 : Deemed consent granted between June 1992 and November 1992	10	LPR	475000 106100
80	Planning Application (of possible contaminative use) Name: Garage (Extension/Alterations) Location: Lilleywhites Garage, Queen Street, Emsworth, Hampshire PO10 7BL Authority: Havant Borough Council Description: Vehicle Maintenance Application Ref.: 94/54619 Dated 21st July 1994 Status: Detailed Plans Submitted Site Area: 1.00 hectares	440	LPR	475200 105800
81	Planning Application (of possible contaminative use) Name: Boat House Location: Far Curlews, Thorney Road, Emsworth, Hampshire PO10 8BW Authority: Chichester District Council Description: Workshops (Purpose B1f) Application Ref.: SB/96/00139/FUL Dated 25th January 1996 Status: Detailed Plans Submitted Site Area: 0.00 hectares	920	LPR	475500 105400
82	Planning Application (of possible contaminative use) Name: Workshop (Extension) Location: 31a North Street, Emsworth, Hampshire PO10 7DA Authority: Havant Borough Council Description: Factories/Spec Ind Application Ref.: 94/52162/2 Dated 8th February 1994 Status: Detailed Plans Submitted Site Area: n/a	80	LPR	474900 106100



Map ID	Details		Estimated Distance from Site	Source	NGR
83	<i>Planning Application (of possible contaminative use)</i>		140	LPR	474900 106300
	Name	Factory (Extension)			
	Location	Sultan Road, Emsworth, Hampshire PO10 7PP			
	Authority	Havant Borough Council			
	Description	Factories/Spec Ind			
	Application Ref.	95/59940 Dated 13th March 1995			
	Status	Detailed Plans Submitted			
	Site Area	n/a			
84	<i>Potentially Contaminative Industrial Use</i>		440	Catalist Petroleum Station Database	475200 105800
	Name	Lillywhite Bros Limited Bp			
	Location	40 Queen Street, Emsworth, Hampshire PO10 7BL			
	Classification	Fuel: retail sale of automotive fuel			
85	<i>Potentially Contaminative Industrial Use</i>		660	Catalist Petroleum Station Database	475000 106800
	Name	Emsworth Service Station Elf			
	Location	A27(T) Eastbound, Emsworth, Hampshire PO10 7RB			
	Classification	Fuel: retail sale of automotive fuel			
86	<i>Potentially Contaminative Industrial Use</i>		670	Thomsons Trade Directory	474400 106500
	Name	Elf Service Station Ltd			
	Location	Emsworth East Service Station, A27 East Bound, Emsworth, Hampshire PO10 7RB			
	Classification	Fuel: retail sale of automotive fuel			
87	<i>Potentially Contaminative Industrial Use</i>		390	Catalist Petroleum Station Database	474700 105900
	Name	Emsworth Service Station Texaco			
	Location	21-25 Havant Road, Emsworth, Hampshire PO10 7JD			
	Classification	Fuel: retail sale of automotive fuel			

**British Geological Survey Information Services Group**

Keyworth
Nottingham
Nottinghamshire
NG12 5GG

Telephone 0115 936 3100
Fax 0115 936 3200

Catalist

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22 Richmond Hill
Clifton
Bristol
Avon
BS8 1BA

Telephone 0117 923 7113
Fax 0117 923 7166

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Chichester
West Sussex
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Environment Agency Southern Region

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West Sussex
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Havant Borough Council

Civic Offices
Civic Centre Road
Havant
Hampshire
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Fax 01705 480263

Institute of Hydrology

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WALLINGFORD
Oxfordshire
OX10 8BB

Telephone 01491 838800
Fax 01491 692424

National Radiological Protection Board

Chilton
DIDCOT
Oxfordshire
OX11 0RQ

Telephone 01235 831600
Fax 01235 833891



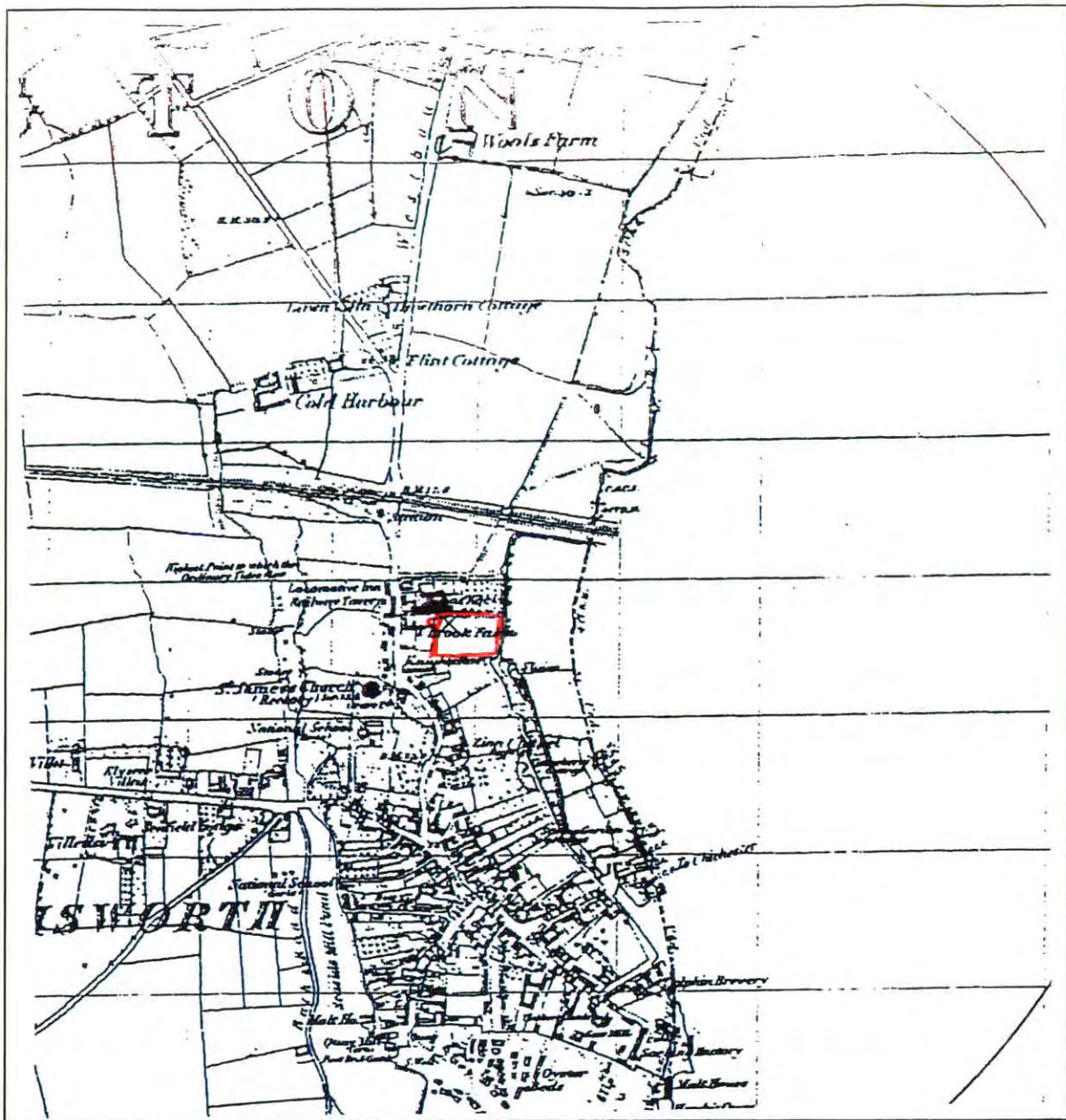
Ordnance Survey

Romsey Road
SOUTHAMPTON
Hampshire
SO16 4GU

Telephone 01703 792000
Fax 01703 792404

APPENDIX 2

**HISTORICAL PLANS AND
ARCHIVE INFORMATION**



Key:-

Site Location:

Transco Site

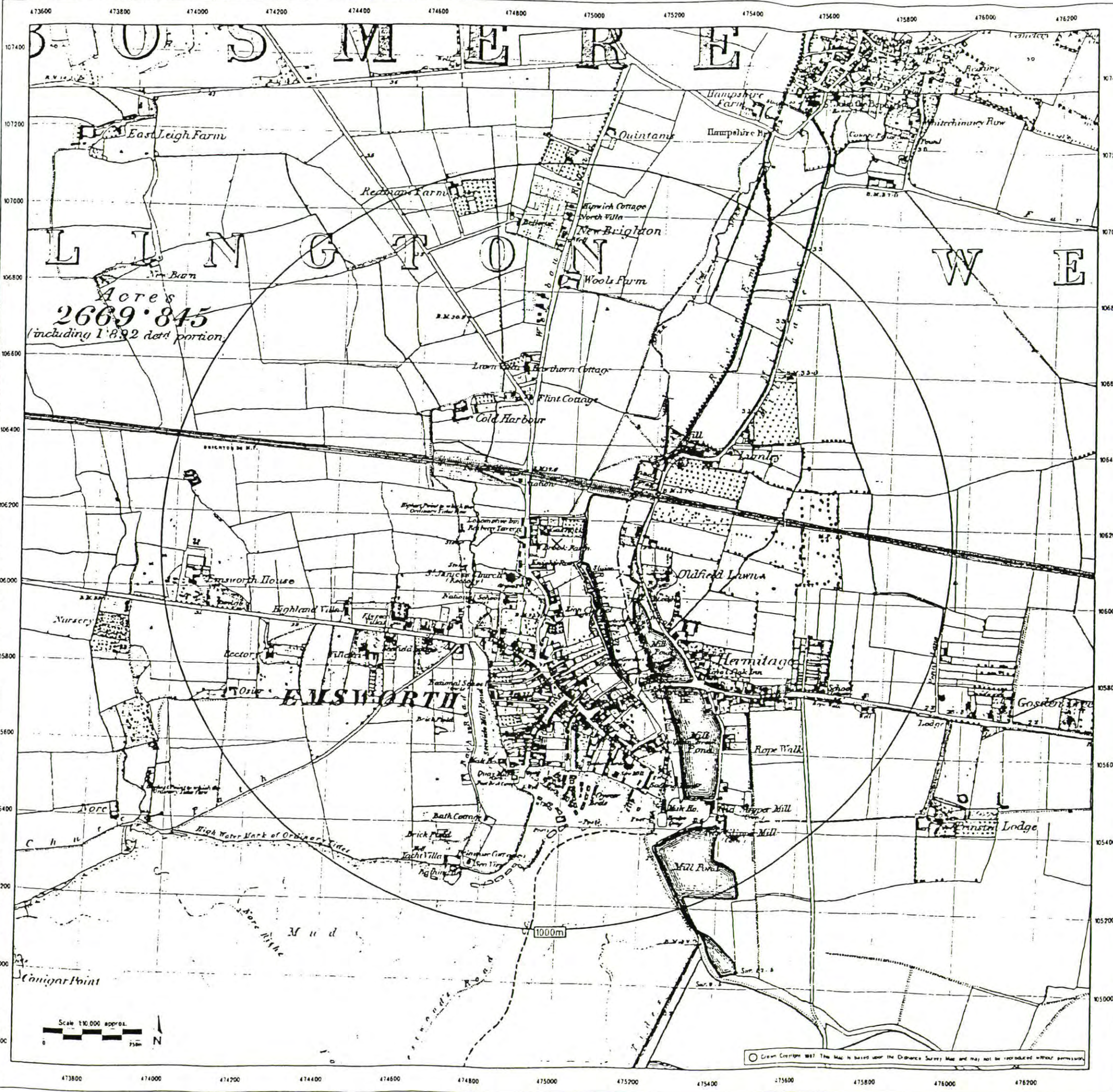


Lattice Property Holdings Ltd
North Street
Emsworth
Hampshire

1870

Project No:
 BEN040102E/100.1

Scale: 6" : 1 mile



EnviroCheck

Environmental Site Sensitivity Data

CLIENT DETAILS

Order No. EH9201-31

Customer Ref: Paul Walker
B G plc (Property Division)
Aviary Court Wade Road
BASINGSTOKE
Hants RG24 8GZ

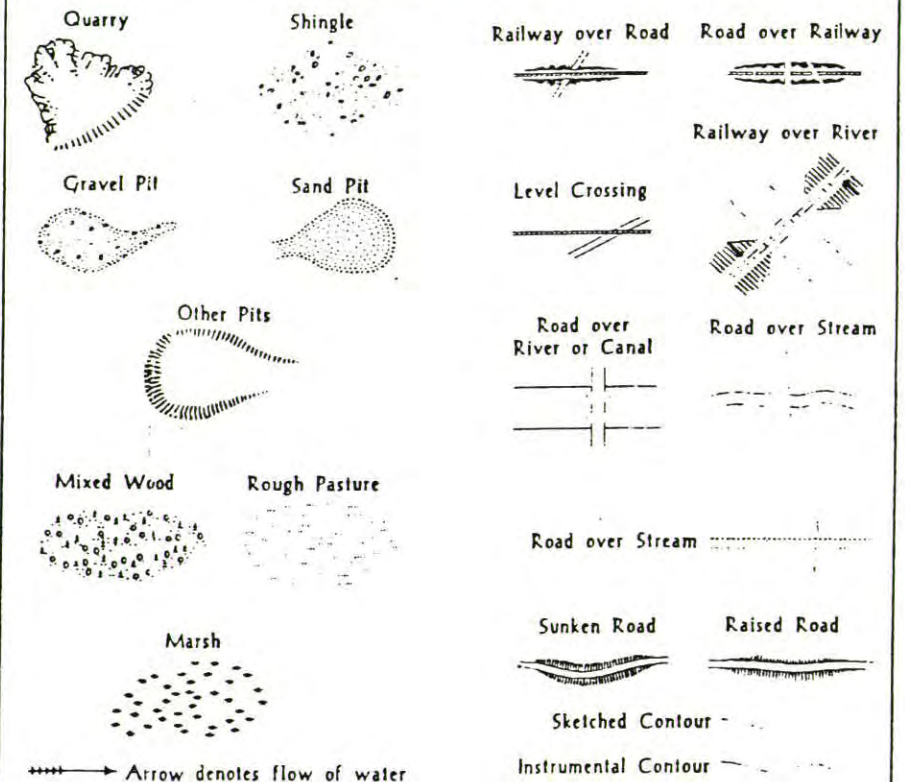
SITE DETAILS

Grid Reference 474963 106137

Property Code 9643
69 North Street

EMSWORTH
Hampshire

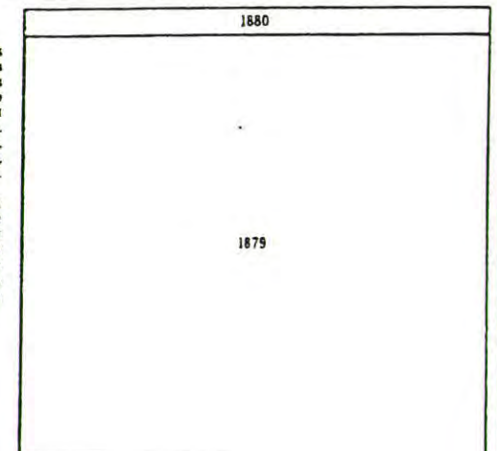
Historical Map Legend



SUSSEX county

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:25,000 scale was adopted for mapping urban areas; these maps were used to update the 1:50,000 maps. The published date given on the right therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

In the late 1940's a Provisional Edition was produced, which updated the 1:50,000 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1976, the first 1:63,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

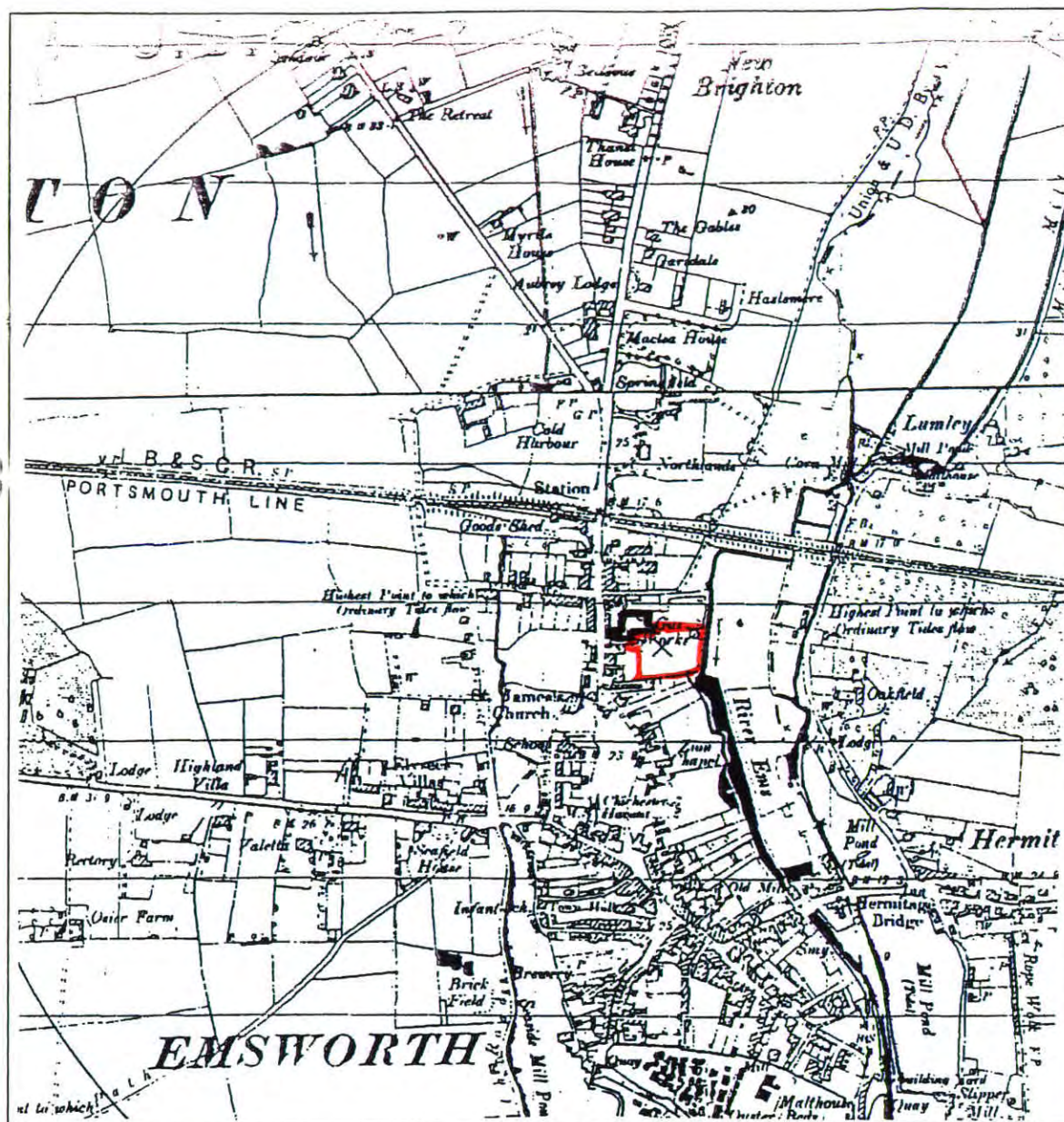


Date(s) of Publication

Ordnance Survey
Value Added Reseller



Landmark Information Group Limited
7 Abbey Court, Eagle Way, Sowton
Exeter EX2 7HY
Telephone 01392 441729 Fax 01392 441705



Key:-

Site Location:

Transco Site

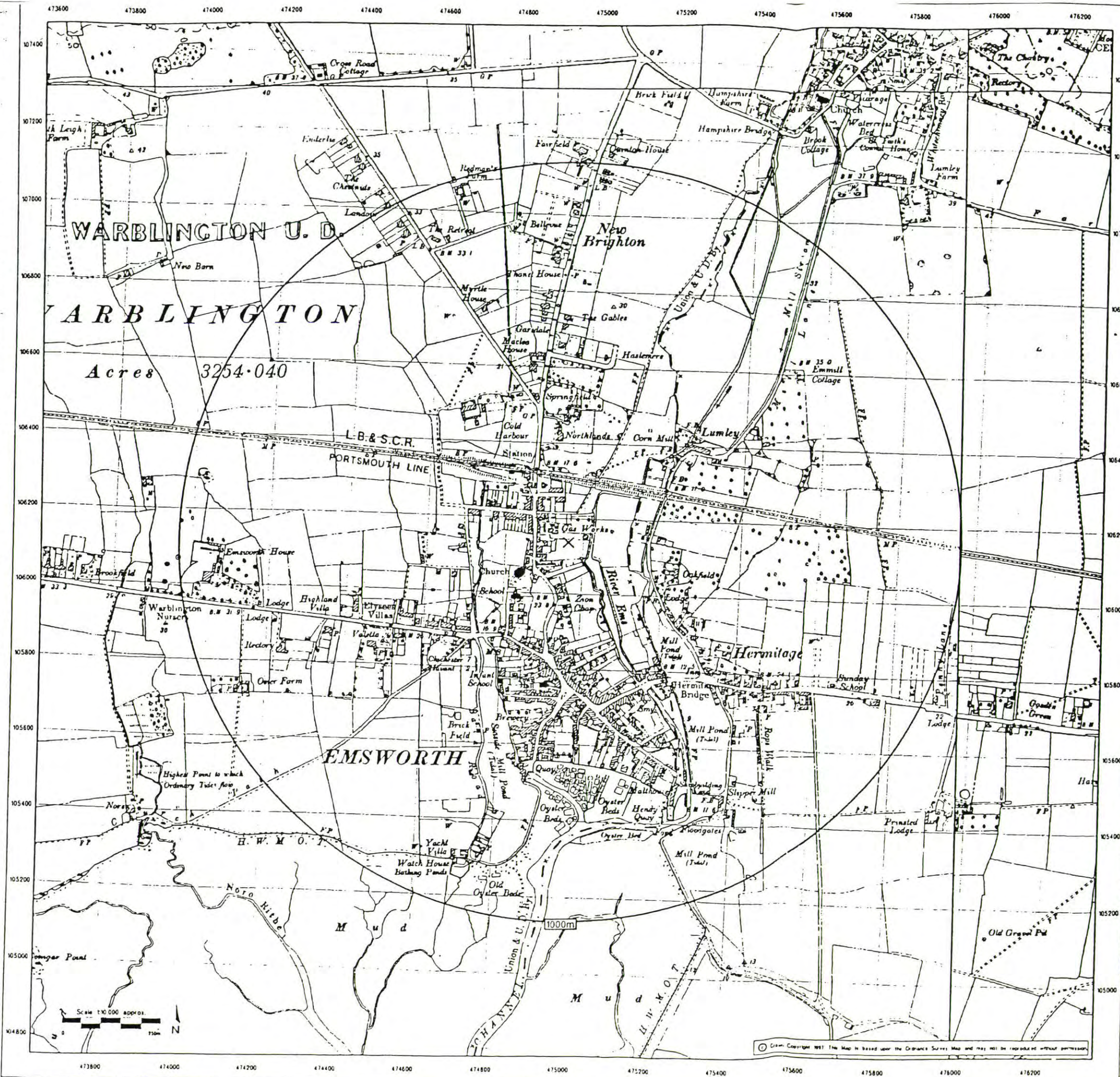


Lattice Property Holdings Ltd
North Street
Emsworth
Hampshire

1898

Project No:
BEN040102E/100.1

Scale: 6" : 1 mile



EnviroCheck

Environmental Site Sensitivity Data

CLIENT DETAILS

Order No. EH9201-31

Customer Ref: Paul Walker
B G plc (Property Division)
Aviary Court Wade Road
BASINGSTOKE
Hants RG24 8GZ

SITE DETAILS

Grid Reference 474963 106137

Property Code 9643
69 North Street

EMSWORTH
Hampshire

Historical Map Legend

Quarry	Shingle	Railway over Road	Road over Railway
Gravel Pit	Sand Pit	Level Crossing	Railway over River
Other Pits	Mixed Wood	Road over River or Canal	Road over Stream
Marsh	Rough Pasture	Road over Stream	Sunken Road
Arrow denotes flow of water	Sketched Contour	Raised Road	Instrumental Contour

SUSSEX county

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,000 maps. The published date gives the right therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,000 mapping from a number of sources. The maps appear unaltered - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1978, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued on, with new editions appearing every 10 years or so for urban areas.

1899	1899
1899	1899

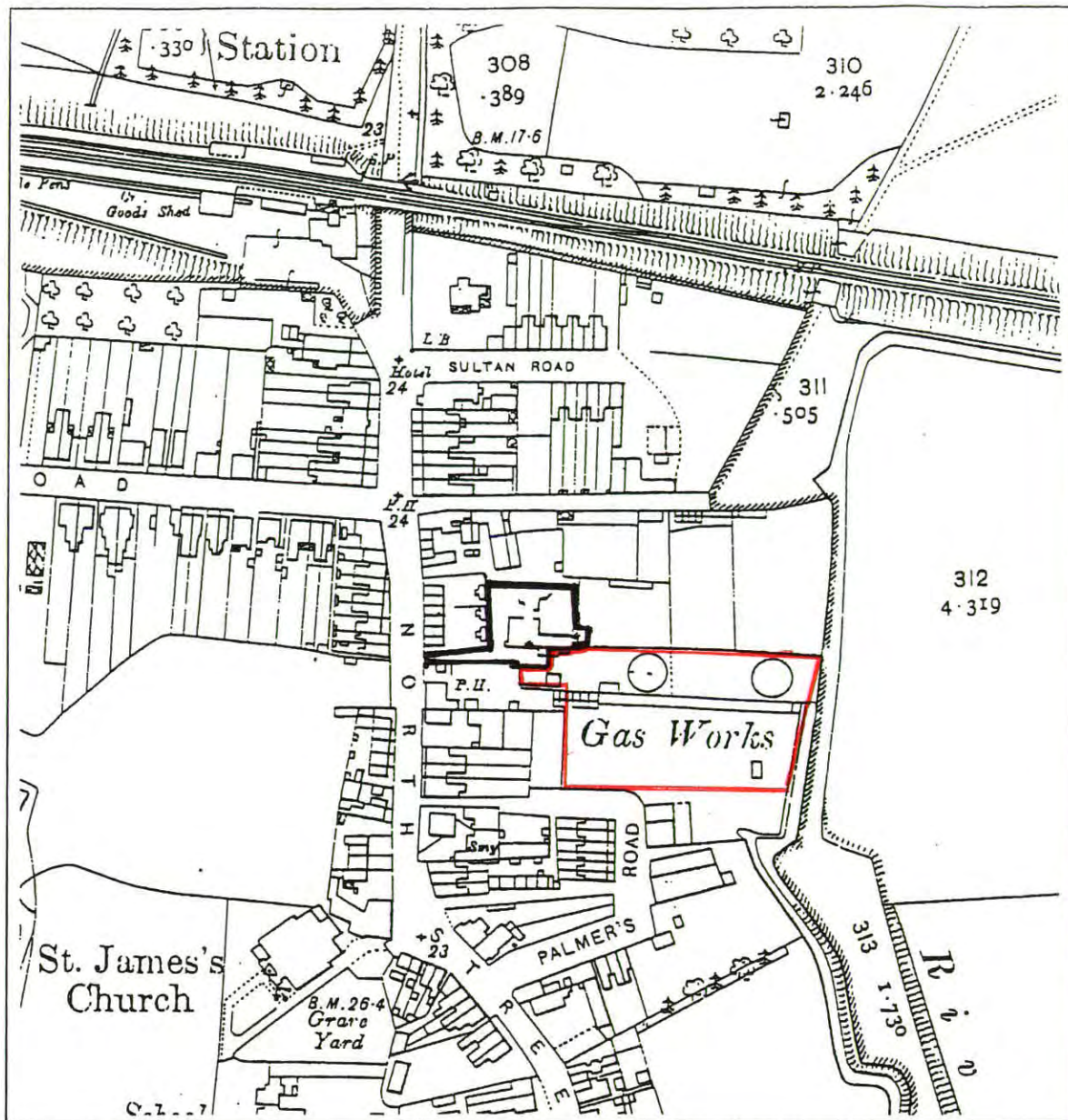
Date(s) of Publication



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Essex EX2 7HY
Telephone 01392 441729 Fax 01392 441709



Key:-

Site Location:

Transco Site

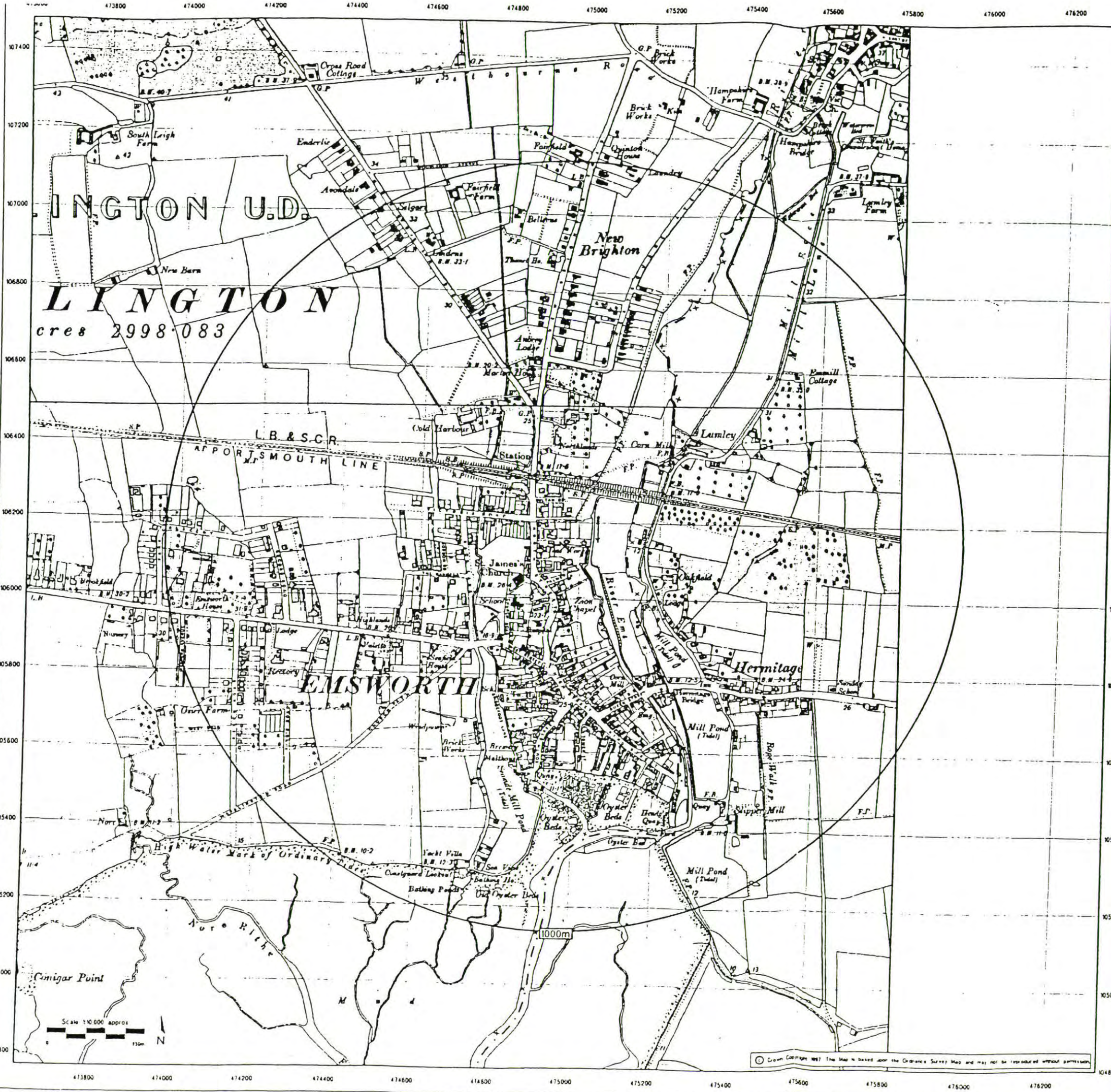


Lattice Property Holdings Ltd
North Street
Emsworth
Hampshire

1908

Project No:
BEN040102E/100.1

Scale: 25" : 1 mile



EnviroCheck

Environmental Site Sensitivity Data

CLIENT DETAILS

Customer Ref: Paul Walker
B G plc (Property Division)
Aviary Court Wade Road
BASINGSTOKE
Hants RG24 8GZ

Order No. EH9201-31

SITE DETAILS

Property Code 9643
69 North Street

Grid Reference 474963 106137

EMSWORTH
Hampshire

Historical Map Legend

Arrow denotes flow of water

HAMPSHIRE & ISLE OF WIGHT county

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:25,000 scale was adopted for mapping urban areas; these maps were used to update the 1:50,000 maps. The published date given on the right therefore is often some years later than the surveyed date. Before 1834, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:50,000 mapping from a number of sources. The maps appear unaltered, with all military camps and other strategic areas removed. These maps were initially overprinted with the National Grid. In 1978, the first 1:50,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

1910
1910

Date(s) of Publication



Value Added Reseller



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Exeter EX2 7HY
Telephone 01392 441729 Fax 01392 441709



EnviroCheck

Environmental Site Sensitivity Data

CLIENT DETAILS

Customer Ref: Paul Walker
B G plc (Property Division)
Aviary Court Wade Road
BASINGSTOKE
Hants RG24 8GZ

Order No. EH9201-31

SITE DETAILS

Property Code 3643
69 North Street

Grid Reference 474963 106137

EMSWORTH
Hampshire

Historical Map Legend



Quarry



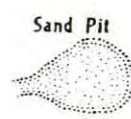
Shingle

Railway over Road

Road over Railway



Gravel Pit



Sand Pit

Level Crossing

Railway over River



Other Pits

Road over River or Canal

Road over Stream



Mixed Wood

Rough Pasture

Road over Stream



Marsh

Sunken Road

Raised Road

Sketched Contour

Instrumental Contour

Arrow denotes flow of water

SUSSEX county

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840s. In 1854 the 1:25,000 scale was adopted for mapping urban areas; these maps were used to update the 1:62,500 maps. The published date given on the right therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

In the late 1940s a Provisional Edition was produced, which updated the 1:62,500 maps; from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1978, the first 1:62,500 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

1914	1914
1914	1914

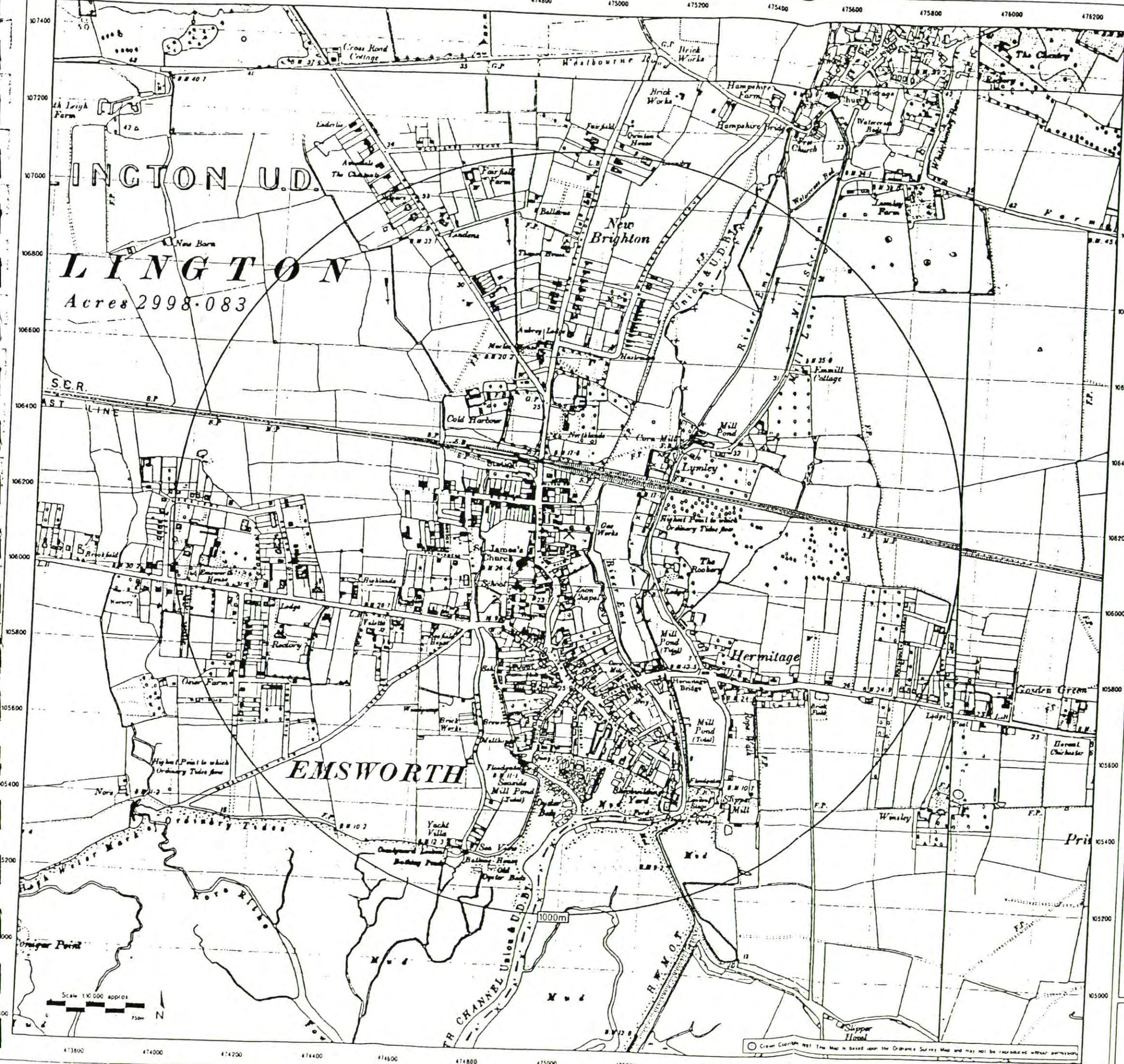
Date(s) of Publication

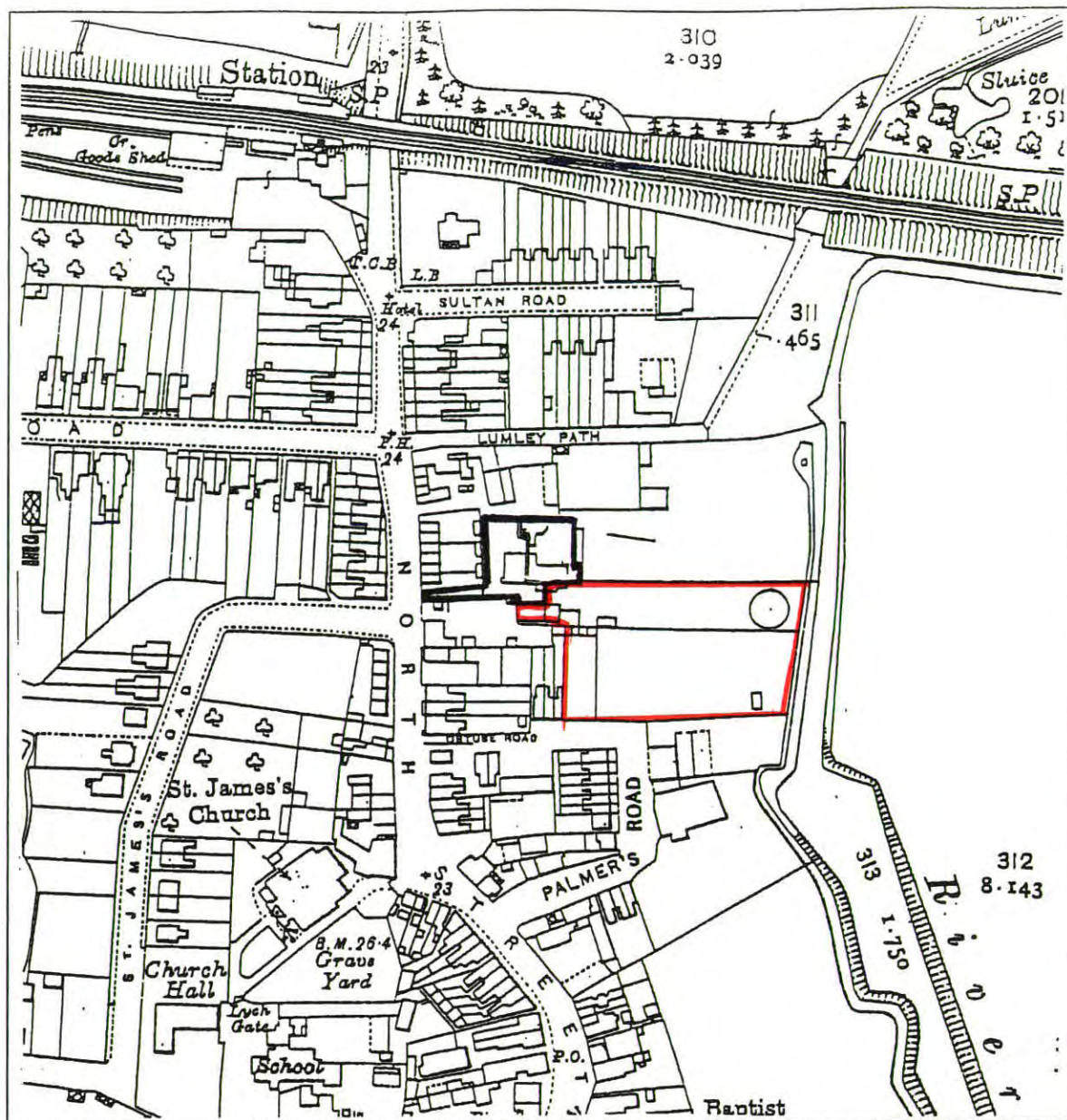


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Essex EX2 7HY
Telephone 01352 441729 Fax 01392 441709





Key:-

Site Location:

Transco Site

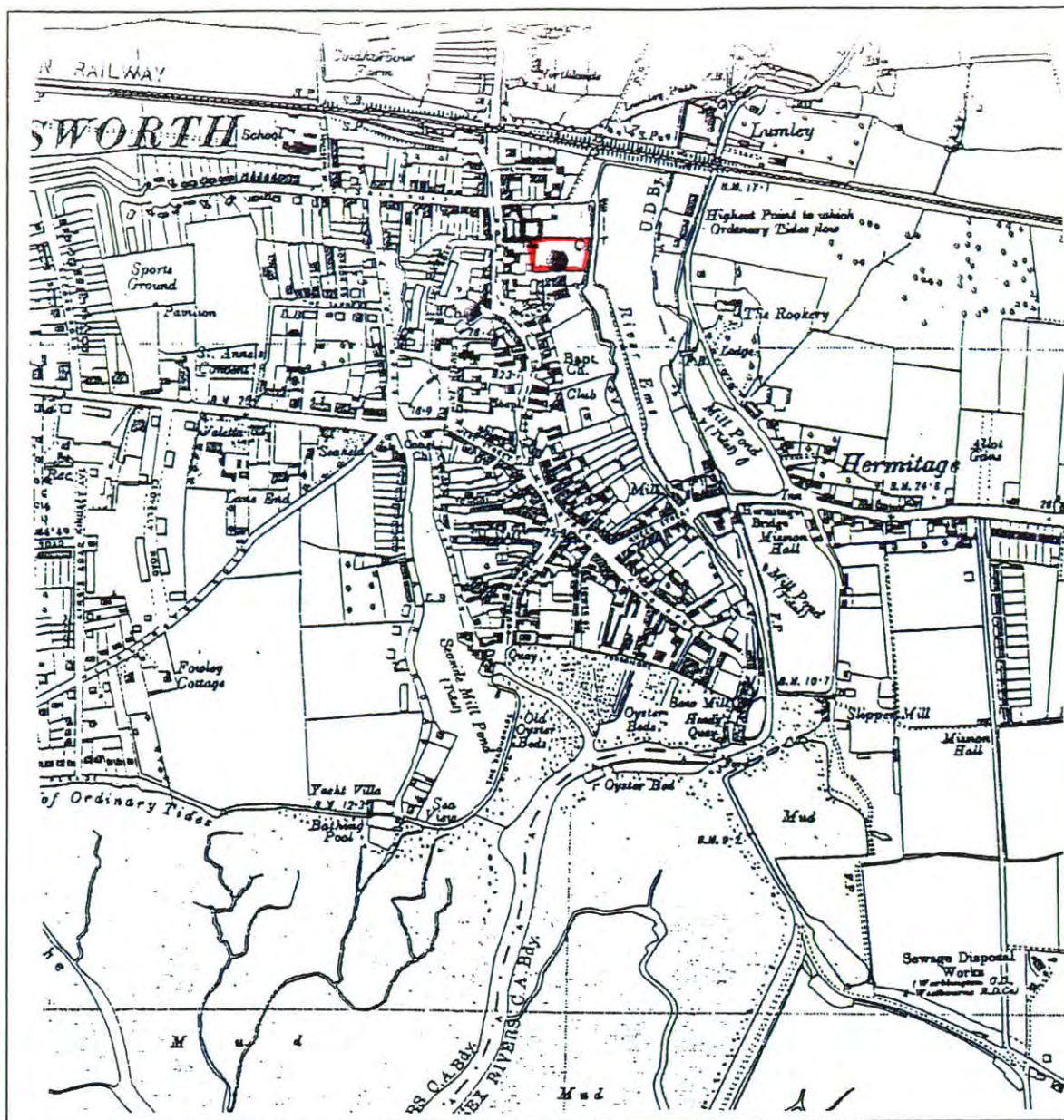


Lattice Property Holdings Ltd
North Street
Emsworth
Hampshire

1932

Project No:
BEN040102E/100.1

Scale: 25" : 1 mile



Key:-

Site Location:

Transco Site

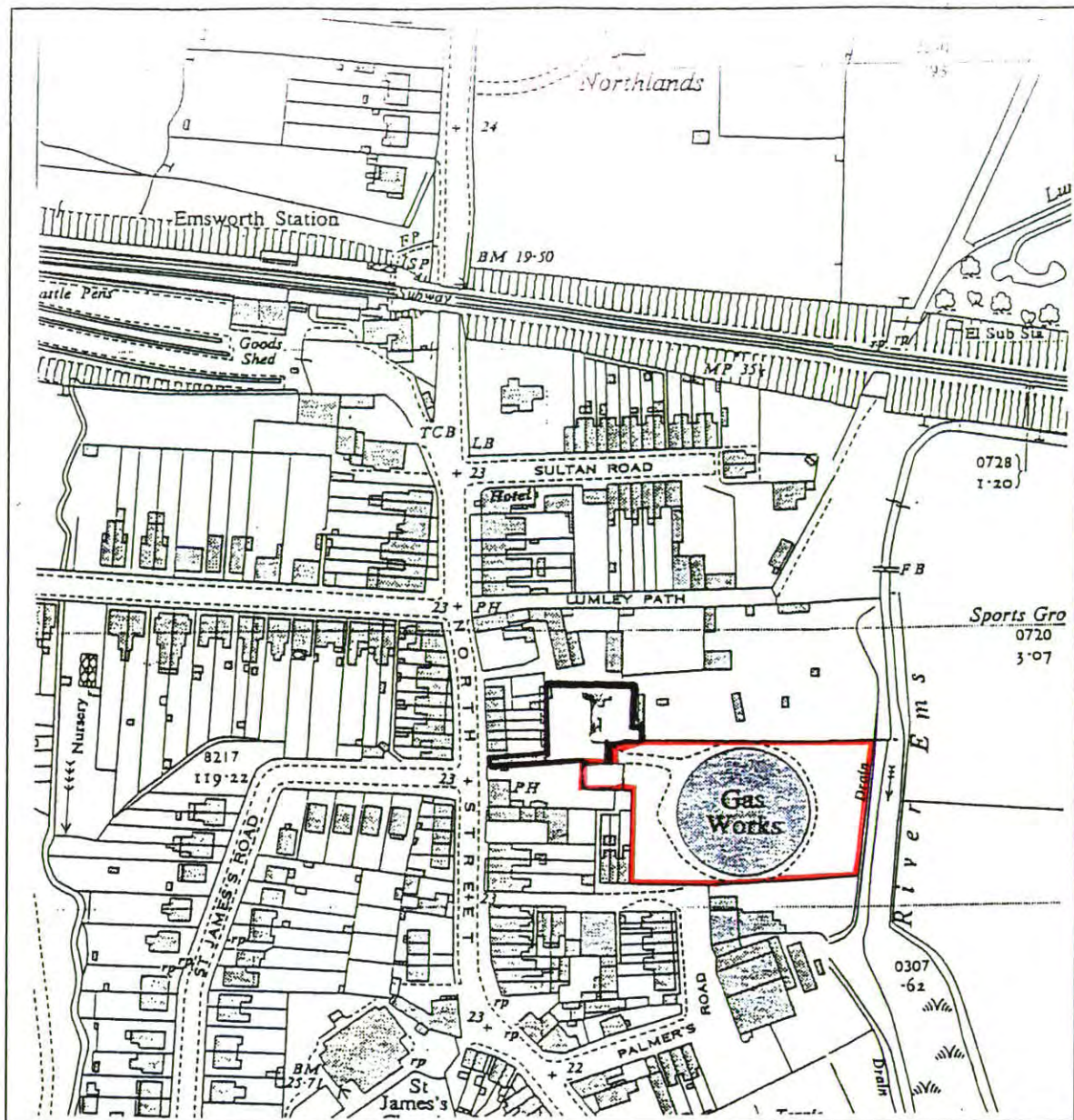


BG Property Holdings Ltd
North Street
Emsworth
Hampshire

1942

Project No:
 BEN040102E/100.1

Scale: 6" : 1 mile



Key:-

Site Location:

Transco Site



Lattice Property Holdings Ltd
North Street
Emsworth
Hampshire

1953

Project No:
 BEN040102E/100.1

Scale: 1:2500



EnviroCheck

Environmental Site Sensitivity Data

CLIENT DETAILS

Order No. EH9201-31

Customer Ref: Paul Walker
 B G plc (Property Division)
 Aviary Court Wade Road
 BASINGSTOKE
 Hants RG24 8GZ

SITE DETAILS

Grid Reference 474963 106137

Property Code 9643
 69 North Street

EMSWORTH
 Hampshire

Historical Map Legend

Quarry	Shingle	Railway over Road	Road over Railway
Gravel Pit	Sand Pit	Level Crossing	Railway over River
Other Pits		Road over River or Canal	Road over Stream
Mixed Wood	Rough Pasture	Road over Stream	
Marsh		Sunken Road	Raised Road
		Sketched Contour	Instrumental Contour

+++++ Arrow denotes flow of water

Ordnance Survey Plan

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:25,000 scale was adopted for mapping urban areas these maps were used to update the 1:10,000 maps. The published date given on the right therefore is often some years later than the surveyed date. Before 1938 all OS maps were based on the Cassini Projection, with subsequent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

In the late 1940's a Provisional Edition was produced, which updated the 1:10,000 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970 the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

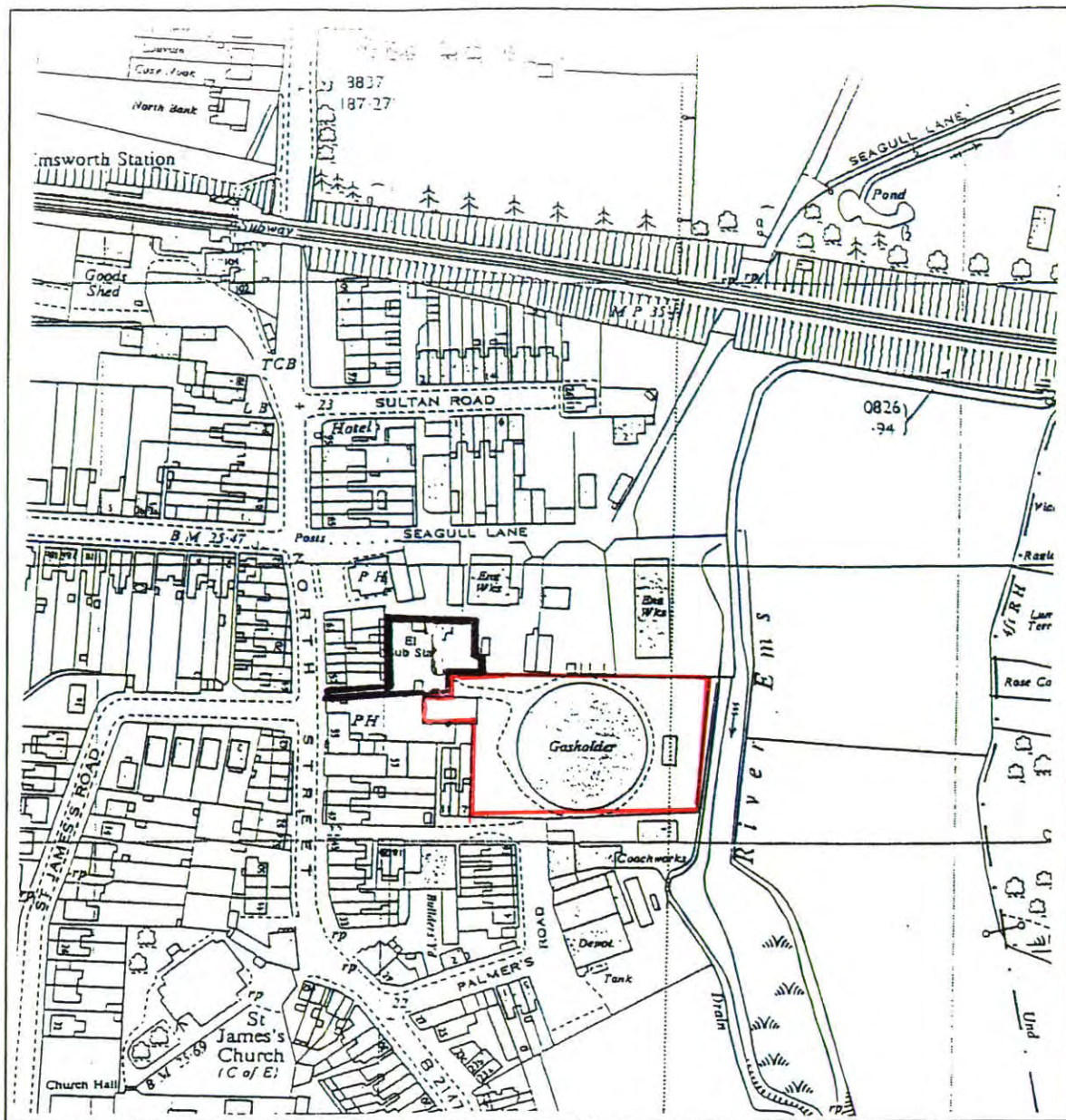
1963	1962
1962	1962

Date(s) of Publication

Ordnance Survey

Value Added Reseller

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 Telephone 01392 441729 Fax 01392 441709



Key:-

Site Location:

Transco Site



Lattice Property Holdings Ltd
North Street
Emsworth
Hampshire

1969

Project No:
 BEN040102E/100.1

Scale: 1:2500



Envirocheck

Environmental Site Sensitivity Data

CLIENT DETAILS

Customer Ref: Paul Walker
B G plc (Property Division)
Aviary Court Wade Road
BASINGSTOKE
Hants RG24 8GZ

Order No. EH9201-31

SITE DETAILS

Property Code 9643
69 North Street

Grid Reference 474963 106137

EMSWORTH
Hampshire

Historical Map Legend



Quarry



Shingle

Railway over Road

Road over Railway



Gravel Pit



Sand Pit

Level Crossing

Railway over River

Other Pits

Road over River or Canal

Road over Stream

Mixed Wood

Rough Pasture

Road over Stream

Sunken Road

Raised Road

Marsh

Sketched Contour

Instrumental Contour

Arrow denotes flow of water

Ordnance Survey Plan

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:25,000 scale was adopted for mapping urban areas; these maps were used to update the 1:62,500 maps. The published date given on the right therefore is often some years later than the surveyed date. Before 1834, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to slight cartographic inaccuracies in outlying areas.

In the late 1940's a Provisional Edition was produced, which updated the 1:62,500 mapping from a number of sources. The maps appear uncoloured - with all military camps and other strategic sites removed. These maps were initially overlaid with the National Grid. In 1978, the first 1:62,500 maps were produced using the Transverse Mercator Projection. The revision process continued up to recently, with new editions appearing every 10 years or so in urban areas.

1975	1973
1972	1971

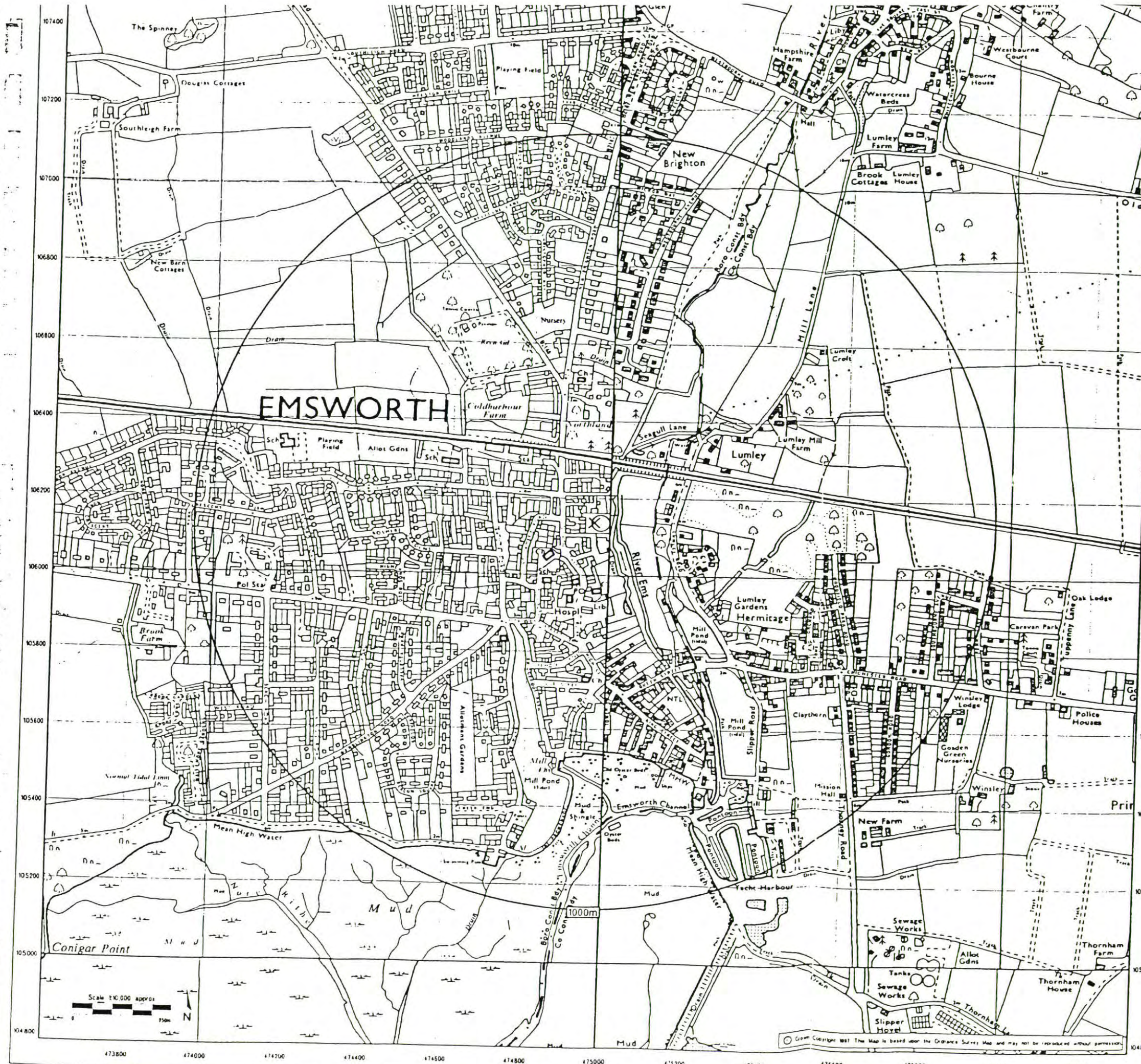
Date(s) of Publication



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Telephone 01392 441729 Fax 01392 441709



APPENDIX 3

SITE INVESTIGATION DETAILS

Job No. : BEN40102E/100.1
 Site Name : Emsworth
 Client : Lattice Property Holdings

Record of Borehole TCBH1

Easting	474939.9	Start date	16/08/2000
Northing	106149.7	End date	16/08/2000
Ground level	5.16m AOD	Backfill date	16/08/2000
Final depth	5.00m	Page	1 of 1

Progress				Samples & Testing				Strata				Standpipe
Date	Hole	Casing	Water	Depths		Type	Field Record	Legend	Depth <i>(Thickness)</i>	Level m AOD	Strata Descriptions	
				From	To							
				0.60	0.60	D			(0.40) 0.40	4.76	MADE GROUND comprising (medium dense to dense) coarse angular gravel of limestone and flint.	
				1.00	1.00	D			(0.40) 0.80	4.36	(Firm) brown CLAY with rare flint cobbles (Highly weathered London Clay).	
				2.00	2.00	D			(0.50) 1.30	3.86	(Soft to firm) brown mottled grey CLAY (highly weathered London Clay).	
				3.50	3.50	D			(2.70)		(Firm to stiff) orange-brown to brown, mottled blue-grey CLAY (weathered London Clay).	
				4.00					(1.00)	1.16	(Stiff to very stiff) grey CLAY with rare weathered orange silt bands (London Clay).	
				5.00	5.00	D			5.00	0.16		
												
												
												
												
												
												
												
												
												
												
												
												
												

Diameters			General remarks	Equipment and Methods
Depth (m)	Hole (mm)	Casing (mm)		
Groundwater			Notes: All dimensions in metres unless otherwise stated	Drilled by: Geotechnical Logged by: JPM
Depth struck	After 20 mins	Depth sealed		

General remarks

- Borehole installed with groundwater monitoring standpipe comprising:
 - Bentonite plug from 5.0m to 1.5 bgl
 - 50mm HDPE slotted pipe from 1.5m to 0.4mbgl
 - 50mm HDPE plain pipe from 1.5mbgl to ground level
 - Sand from 1.5m to 0.4mbgl
 - Bentonite seal from 0.4m to ground level with lockable stopcock cover.
- No groundwater encountered.

Notes:
All dimensions in metres unless otherwise stated

Checked by:

Equipment and Methods

Pioneer

Drilled by: Geotechnical

Logged by: JPM

Job No. : BEN40102E/100.1
 Site Name : Emsworth
 Client : Lattice Property Holdings

Record of Borehole TCBH2

Easting	475004.4	Start date	16/08/2000
Northing	106151.9	End date	16/08/2000
Ground level	5.42m AOD	Backfill date	16/08/2000
Final depth	6.50m	Page	1 of 1

Progress				Samples & Testing				Strata				Standpipe
Date	Hole	Casing	Water	Depths		Type	Field Record	Legend	Depth (Thickness)	Level m AOD	Strata Descriptions	
				From	To							
				0.50	0.50	D			(0.80)		Grass over MADE GROUND comprising (loose) brown clayey silt with flint gravel and brick fragments.	
				0.90	0.90	D			0.80 (0.30)	4.62	MADE GROUND comprising (loose) dark grey-brown clayey silt with some coal/clinker fragments	
				1.30	1.30	D			1.10 (0.70)	4.32		
				1.90	1.90	D			1.80 (0.50)	3.62	MADE GROUND comprising (very soft to soft) pale brown gravelly clay with rare brick fragments. Gravels comprising coarse angular flint	
									2.30 (0.50)	3.12		
									2.80 (0.30)	2.62	(Soft) grey mottled orange-brown very clayey SILT with abundant fossil fragments (Alluvium)	
				2.97	2.97	W			2.80 (0.30)	2.32	(Very soft) dark grey CLAY (Alluvium)	
				3.0	3.20	D			3.10 (0.60)		(Firm) black fibrous clayey PEAT (Alluvium)	
				3.70	3.80	D			3.70 (0.80)	1.72	(Loose to medium dense) pale grey clayey medium to coarse SAND (Alluvium)	
									4.50 (1.50)	0.92	(Loose) grey coarse angular flint GRAVEL (Alluvium).	
				4.60	4.60	D					(Firm to stiff) dark grey CLAY (weathered London Clay).	
									6.00 (0.50)	-0.58	(Stiff to very stiff) dark grey CLAY with some fossil fragments (London Clay).	
				6.50	6.50	D			6.50	-1.08		

Diameters			General remarks	Equipment and Methods
Depth (m)	Hole (mm)	Casing (mm)		
Groundwater			Notes:	Checked by:
Depth struck	After 20 mins	Depth sealed		
3.70	2.97			
			1. Borehole installed with gas and groundwater monitoring standpipe comprising: -Bentonite plug from 6.7m to 5.5 bgl -50mm HDPE slotted pipe from 5.5m to 2.5mbgl -50mm HDPE plain pipe from 2.5mbgl to ground level -Sand annulus from 5.5m to 2.2mbgl -Bentonite seal from 2.2m to ground level with lockable stopcock cover. 2. Falling head test performed. 3. Groundwater encountered at 3.7m standing at 2.97mbgl after 10 minutes. Drilled by: Geotechnical Logged by: JPM	

Job No. : BEN40102E/100.1
Site Name : Emsworth
Client : Lattice Property Holdings

Easting	474978.9	Start date	17/08/2000
Northing	106108.9	End date	17/08/2000
Ground level	5.01m AOD	Backfill date	17/08/2000
Final depth	5.20m	Page	1 of 1

Progress				Samples & Testing				Strata				Standpipe
Date	Hole	Casing	Water	Depths		Type	Field Record	Legend	Depth (Thickness)	Level m AOD	Strata Descriptions	
				From	To							
									(0.10) 0.10	4.91	Grass over (loose to medium dense) brown clayey sandy TOPSOIL.	
									(1.00)		MADE GROUND comprising (soft) pale-brown gravelly sandy silt. Gravels comprising flint and limestone with concrete and brick fragments.	
				1.20	1.20	D			1.10	3.91	(Firm) dark grey and black slightly sandy CLAY with rare flint fragments and fossils. Moderately strong organic odour (Alluvium).	
									(1.00)			
				2.30	2.30	D			2.10 (0.20)	2.91	(Medium dense) clayey angular coarse GRAVEL (Alluvium).	
									2.30 (0.90)	2.71	(Firm to stiff) orange-brown mottled grey CLAY (weathered London Clay).	
				3.30	3.30	D			3.20 (0.40)	1.81	Very weak to weak highly weathered orange-brown CLAYSTONE, with closely spaced discontinuities returned as coarse gravel (weathered London Clay).	
				3.50	3.50	W			3.60 (0.40)	1.41	(Firm to Stiff) orange-brown mottled grey CLAY (weathered London Clay).	
				3.5					4.00	1.01	(Stiff to very stiff) dark grey CLAY (London Clay).	
				3.60								
				4.50	4.50	D			(1.20)			
									5.20	-0.19		

Diameters			General remarks	Equipment and Methods
Depth (m)	Hole (mm)	Casing (mm)		
Groundwater			Notes:	Drilled by: Geotechnical
Depth struck	After 20 mins	Depth sealed		
3.60	3.50			
			1. Borehole installed with gas and groundwater monitoring standpipe comprising: -Bentonite plug from 5.0m to 5.2 bgl -50mm HDPE slotted pipe from 5.0m to 3.0mbgl -50mm HDPE plain pipe from 3.0mbgl to ground level -Sand annulus from 5.0m to 2.8mbgl -Bentonite seal from 2.8m to groundlevel with lockable stopcock cover.	Pioneer
			2. Groundwater encountered within claystone band. Strike at 3.6m standing at 3.5mbgl.	
			All dimensions in metres unless otherwise stated	Checked by: Logged by: JPM

Job No. : BEN40102E/100.1

Site Name : Emsworth

Client : Lattice Property Holdings

Record of Borehole TCBH4

Easting		Start date	15/08/2000
Northing		End date	15/08/2000
Ground level	6.40m AOD	Backfill date	15/08/2000
Final depth	5.70m	Page	1 of 1

Progress				Samples & Testing				Strata				Standpipe
Date	Hole	Casing	Water	Depths		Type	Field Record	Legend	Depth (Thickness)	Level m AOD	Strata Descriptions	
				From	To							
									(0.40)		Concrete hardstanding.	
									0.40	6.00		
									(0.10)	5.90	MADE GROUND comprising hardcore of whole brick and flint gravel.	
				0.70	0.70	D			0.50		MADE GROUND comprising (very soft) brown and orange-brown clay with some brick and concrete fragments.	
									(0.70)		MADE GROUND comprising (loose) fragments of brick with organic matter and a gasworks odour, becoming gravelly towards base.	
				1.4	1.50	D			1.20	5.20		
				1.50	1.50	W			(0.70)			
				1.50					1.90	4.50	(Firm to stiff) orange-brown mottled blue-grey CLAY (weathered London Clay).	
				2.00	2.00	D			(0.60)			
									2.50	3.90	(Stiff) orange-brown and blue-grey CLAY (London Clay).	
				3.50	3.50	D			(2.30)			
									4.80	1.60	(Stiff to very stiff) grey CLAY (London Clay).	
									(0.90)			
				5.50	5.50	D			5.70	0.70		

Diameters			General remarks	Equipment and Methods
Depth (m)	Hole (mm)	Casing (mm)		
			1. Borehole installed with gas and groundwater monitoring standpipe comprising: - Bentonite plug from 5.7m to 5.5mbgl - 50mm HDPE plain pipe from 5.5m to 2.2mbgl - 50mm HDPE slotted pipe with geotextile wrap from 2.2m to 1.0mbgl - 50mm HDPE plain pipe from 0.7mbgl to ground level. - Sand from 2.2m to 1.0mbgl - Bentonite seal from 5.7m to 2.2mbgl and from 0.7mbgl to ground level with lockable stopcock cover. 2. Groundwater at 1.5m standing at 1.4mbgl after 1 hour.	Pioneer
Groundwater			Notes:	Drilled by: Geotechnical
Depth struck	After 20 mins	Depth sealed		
1.50	1.40		All dimensions in metres unless otherwise stated	Logged by: JPM
			Checked by:	

Job No. : BEN40102E/100.1
 Site Name : Emsworth
 Client : Lattice Property Holdings

Record of Trial Pit
TCTP1

Easting	474933.8	Start date	15/08/2000
Northing	106141.3	End date	15/08/2000
Ground level	5.94m AOD	Backfill date	15/08/2000
Final depth	2.00m	Page	1 of 1

Parsons Brinckerhoff Ltd, Queen Victoria House, Redland Hill, Redland, Bristol BS6 6US Tel. 0117-973-9090 Fax. 0117-923-7479

Samples & Testing				Strata				
Average Vane Strength	Water	Depths		Type	Legend	Depth (Thickness)	Level m AOD	Strata Descriptions
		From	To					
		0.40	0.40	D		(0.43) 0.43	5.51	Dense grass over TOPSOIL comprising (soft) dark brown slightly sandy silt with rare flint gravel.
		0.60	0.60	D		(0.42) 0.85	5.09	Soft orange/brown CLAY with abundant sub-angular limestone and flint gravels. (Highly weathered London Clay).
						(1.15) 2.00	3.94	Firm to stiff orange brown CLAY with rare limestone pockets (weathered London Clay).
		2.00	2.00	D				

General remarks 1. No groundwater encountered.	Plant: JCB
	Shoring:
	Stability: stable.
	Groundwater:

Notes: 1. Relative densities by visual assessment only 2. All dimensions in metres unless otherwise stated	Pit dimensions: Width: 0.6m Length: 1.8m Checked by:
	Orientation: 90deg. Logged by: SP

Job No. : BEN40102E/100.1
Site Name : Emsworth
Client : Lattice Property Holdings

Easting	474936.5	Start date	15/08/2000
Northing	106154.0	End date	15/08/2000
Ground level	5.67m AOD	Backfill date	15/08/2000
Final depth	1.03m	Page	1 of 1

Samples & Testing				Strata			
Average Vane Strength	Water	Depths		Type	Legend	Depth (Thickness)	Level m AOD
		From	To				
		1.00	1.00	D		(1.00) 1.00 (0.03) 1.03	4.67 4.64
MADE GROUND comprising (loose) limestone and quartz gravel over brown sandy silt. At depth gravel of limestone and flint in much of a brown clayey matrix with some fragments of metal.							
MADE GROUND comprising (dense) black sandy gravelly coke and coal fragments. Struck concrete obstruction at base, pit extended to the west and the north.							

General remarks

- Pit extended to chase concrete base.
- Electric main uncovered south side of the pit, therefore the pit was extended to the north still chasing the base.
- Foul lime found in the west end of the pit.
- No groundwater encountered.

Notes:

- Relative densities by visual assessment only
- All dimensions in metres unless otherwise stated

Plant:
JCB

Shoring:

Stability:

Pit dimensions:

Width: 1.2m
Length: 3.0m

Groundwater:

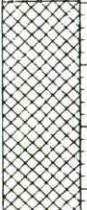
Orientation: 90deg.

Checked by:

Logged by: SP

Job No. : BEN40102E/100.1
Site Name : Emsworth
Client : Lattice Property Holdings

Easting	474941.2	Start date	15/08/2000
Northing	106155.4	End date	15/08/2000
Ground level	5.83m AOD	Backfill date	15/08/2000
Final depth	1.34m	Page	1 of 1

Samples & Testing				Strata				
Average Vane Strength	Water	Depths		Type	Legend	Depth	Level	Strata Descriptions
		From	To			(Thickness)	m AOD	
		0.30	0.30	D		(0.49)		Grass over MADE GROUND comprising (soft) brown very sandy silt with abundant fine gravels of limestone and quartz.
						0.49	5.34	
		1.00	1.00	D		(0.85)		MADE GROUND comprising (soft to firm) brown slightly sandy clay with abundant fine to medium gravels of quartz and limestone with occasional whole and half bricks and metal fragments and piping.
						1.34	4.49	
				</				

General remarks

1. No groundwater encountered.
2. Concrete struck at 1.34mbgl, approximately 0.1m thick, with an old gas pipe (as valve was uncovered).

Notes:

1. Relative densities by visual assessment only
2. All dimensions in metres unless otherwise stated

Plant:
JCB

Shoring:

Stability:
stable.

Pit dimensions:

Width:

Length:

Checked by:

Groundwater:

Orientation: 90deg.

Logged by: SP

Job No. : BEN40102E/100.1

Site Name : Emsworth

Client : Lattice Property Holdings

Easting	474994.1	Start date	15/08/2000
Northing	106144.0	End date	15/08/2000
Ground level	5.48m AOD	Backfill date	15/08/2000
Final depth	3.87m	Page	1 of 1

Samples & Testing				Strata				
Average Vane Strength	Water	Depths		Type	Legend	Depth	Level	Strata Descriptions
		From	To			(Thickness)	m AOD	
						(1.11)		Grass over MADE GROUND comprising (loose) brown sandy silt with abundant quartz and limestone gravels.
		1.11	1.11	D		1.11	4.37	MADE GROUND comprising light brown very sandy clay with limestone and quartz gravels. Band of black sandy silty coal dust and gravels, slightly clayey.
						(1.66)		
		2.40	2.40	D		2.77	2.71	MADE GROUND comprising (soft) grey clay with patches of black silty coal dust and rare patches of purple sandy silt and yellow sand.
						(1.10)		
		3.87	3.87	D		3.87	1.61	

General remarks

1. No groundwater encountered.
2. Struck obstruction at 3.87mbgl, ceased digging (possible holder base).
3. Former holder wall encountered measuring 0.35m thickness.

Notes:

1. Relative densities by visual assessment only
2. All dimensions in metres unless otherwise stated

Plant:
JCB

Shoring:

Stability:
Stable.

Pit dimensions:

Width: 0.6m
Length: 4.6m

Groundwater:

Orientation: 45deg.

Checked by:

Logged by: SP

Job No. : BEN40102E/100.1
Site Name : Emsworth
Client : Lattice Property Holdings

Easting	474985.8	Start date	15/08/2000
Northing	106110.6	End date	15/08/2000
Ground level	5.28m AOD	Backfill date	15/08/2000
Final depth	1.40m	Page	1 of 1

Samples & Testing				Strata				
Average Vane Strength	Water	Depths		Type	Legend	Depth	Level	Strata Descriptions
		From	To			(Thickness)	m AOD	
		0.50	0.50	D		(0.10)	5.18	(Loose) dark brown TOPSOIL.
						0.10	MADE GROUND comprising (soft) brown very sandy silt with abundant quartz and limestone gravel.	
						(0.70)		
						0.80		4.48
						(0.60)	Concrete base.	
	1.40	3.88						

General remarks

1. Trial pit terminated due to concrete base at 1.4mbgl, pit extended, concrete base at 0.8mbgl.
2. No groundwater encountered.

Notes:

1. Relative densities by visual assessment only
2. All dimensions in metres unless otherwise stated

Plant:
JCB

Shoring:

Stability:

Pit dimensions:

Width: 0.6m
Length: 3.1m

Checked by:

Groundwater:

Orientation: 90deg.

Logged by: SP

Job No. : BEN40102E/100.1
Site Name : Emsworth
Client : Lattice Property Holdings

Record of Trial Pit

TCTP6

Easting	475001.2	Start date	15/08/2000
Northing	106124.2	End date	15/08/2000
Ground level	5.48m AOD	Backfill date	15/08/2000
Final depth	2.50m	Page	1 of 1

Samples & Testing				Strata				
Average Vane Strength	Water	Depths		Type	Legend	Depth	Level	Strata Descriptions
		From	To			(Thickness)	m AOD	
		0.50	0.50	D		(0.30)	5.18	MADE GROUND comprising (soft) brown very sandy silt with abundant limestone and quartz gravel.
						(0.30)		MADE GROUND comprising (soft) reddish orange very sandy silt. Blue spent oxide band present on east face of trial pit 0.5m long and 0.1m thick.
						0.60	4.88	(Moderately dense) brown mottled grey slightly sandy SILT (ALLUVIUM).
						(1.90)		
		2.50	2.50	D		2.50	2.98	

General remarks

1. Trial pit hand dug to 1.2mbgl before excavating.
2. No groundwater encountered.

Notes:

1. Relative densities by visual assessment only
2. All dimensions in metres unless otherwise stated

Plant:

Shoring:

Stability:

Pit dimensions:

Width: 0.6m
Length: 2.5m

Groundwater:

Orientation: 135deg.

Checked by:

Logged by: SP

Job No. : BEN40102E/100.1
 Site Name : Emsworth
 Client : Lattice Property Holdings

Record of Trial Pit
TCTP7

Easting	474936.2	Start date	15/08/2000
Northing	106110.0	End date	15/08/2000
Ground level	5.93m AOD	Backfill date	15/08/2000
Final depth	1.00m	Page	1 of 1

Samples & Testing				Strata				
Average Vane Strength	Water	Depths		Type	Legend	Depth	Level	Strata Descriptions
		From	To			(Thickness)	m AOD	
		0.50	0.50	D		(0.30) 0.30	5.63	MADE GROUND comprising grass over (loose) brown very sandy silt.
						(0.20) 0.50	5.43	MADE GROUND comprising (soft) brown to orange very sandy clay with abundant quartz and limestone gravel.
						(0.10) 0.60	5.33	Concrete foundation.
						(0.40) 1.00	4.93	MADE GROUND comprising (loose) brown to orange very sandy clay with abundant quartz and limestone gravel.

General remarks

- Concrete foundations uncovered at 0.5mbgl.
- No groundwater encountered.

Notes:

- Relative densities by visual assessment only
- All dimensions in metres unless otherwise stated

Plant:

Shoring:

Stability:

Pit dimensions:

Width: 0.6m
 Length: 2.5m

Groundwater:

Orientation:

Checked by:

Logged by: SP



Transco SI Photograph 1: Showing TCTP2 extended to uncover extent of concrete base



Transco SI Photograph 2: Showing old gas pipe in trial pit TCTP3



Transco SI Photograph 3: Showing trial pit TCTP4 eastern edge of pit, fill material inside former gas holder no. TC1



Transco SI Photograph 4: Showing trial pit TCTP4 western edge of pit an historical gasholder wall



Transco SI Photograph 5: Showing trial pit TCTP5 concrete base uncovered



Transco SI Photograph 6: Showing Trial pitTCTP7 and part of the foundation wall uncovered

APPENDIX 4

ANALYTICAL DATA

**NEW PROFORMA FOR REPORTING
ANALYTICAL RESULTS (SOIL)**

All analytical results to be reported as mg/kg ONLY
R50282A

Site Name: Emsworth

Date: 06/09/00

Laboratory: Environmental Analysis Ltd

Natural (N)/Made Ground (MG)

Date Sampled:	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00
Laboratory Sample Reference	61369	61370	61360	61210	61216	61217	61218
Trial Pit/Borehole No.	TCBH2	TCBH2	TCBH4	TCTP1	TCTP3	TCTP4	TCTP4
Sampling Depth (m)	0.50	0.90	1.50	0.40	1.00	1.10	3.87
Hardstanding at Surface (Y/N)							
CLAY CONTENT %	25	25	10	20	60	60	70
PH	8.0	8.0	9.8	7.2	8.1	5.7	7.1
%LOI	13.52	19.26	15.84	12.90	4.88	5.61	10.64
% Moisture	13.61	15.91	15.52	15.22	17.25	17.76	20.56
% Stones	9	0	0	7	20	37	6
Cresols	<0.1	<0.1	<0.1	<0.1	<0.1	0.8	<0.1
Xylenols & Ethylphenols	<0.1	<0.1	0.1	<0.1	0.1	0.3	4.5
Naphthols	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Phenol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trimethylphenol	<0.1	<0.1	0.7	<0.1	<0.1	0.6	2.1
Total Phenols	<0.5	<0.5	1.0	<0.5	<0.5	1.7	6.6
Naphthalene	<0.5	26.1	5.6	<0.5	<0.5	<0.5	0.9
Acenaphthylene	0.5	0.9	7.8	<0.5	1.0	<0.5	<0.5
Acenaphthene	1.3	1.8	3.8	1.1	2.1	<0.5	<0.5
Fluorene	1.2	1.3	28.6	4.5	2.3	1.5	2.0
Phenanthrene	6.1	8.8	85.6	2.8	9.2	9.8	8.2
Anthracene	2.7	3.8	34.8	8.9	7.7	1.6	2.1
Fluoranthene	9.6	16.0	52.3	7.9	11.3	11.4	14.9
Pyrene	8.5	13.5	39.2	5.1	10.1	9.3	11.2
Benzo(a)anthracene	5.6	10.2	23.6	7.5	6.3	5.2	6.5
Chrysene	5.6	10.8	30.5	7.5	5.9	4.2	8.0
Benzo(b)fluoranthene	3.5	10.4	20.2	2.9	4.3	3.4	4.8
Benzo(k)fluoranthene	3.8	10.6	20.4	3.0	4.5	3.4	5.0
Benzo(a)pyrene	5.2	11.7	23.4	3.4	4.9	3.0	5.6
Indeno(1,2,3-cd)pyrene	5.3	10.0	10.7	1.6	1.8	1.1	1.6
Di-benzo(a,h.)anthracene	5.5	9.8	10.9	1.7	1.8	1.2	1.8
Benzo(g,h,i.) Perylene	2.8	13.2	19.1	2.6	2.4	1.8	2.6
Total PAH	76.2	177.2	448.5	67.8	83.9	63.6	83.4
TOTAL PAH (DUTCH 10)	46.72	121.20	306.00	45.16	53.97	41.52	55.36
Easily Liberatable Cyanide	1.0	1.3	6.8	2.2	<1	6.7	41.1
Complex Cyanide	6.3	12.2	7.5	41.3	30.1	457.2	758.1
Total Cyanide	7.3	13.4	14.3	43.5	30.1	464.0	799.2
Elemental Sulphur	533	1273	6109	402	723	6850	21419
Water Soluble Sulphate	<100	<100	1011	<100	<100	5535	8027
Water Soluble Chloride	33	34	101	35	34	20	36
Exchangeable Ammonium	18.7	14.9	14.5	13.4	12.4	19.4	64.44
Arsenic	11.4	34.8	49.9	19.4	9.7	12.2	27.6
Cadmium	0.6	0.8	<0.5	0.7	<0.5	<0.5	<0.5
Chromium	26	28	18	21	17	17	25
Lead	220	810	147	1044	145	35	34
Mercury	0.3	0.6	<0.2	0.3	0.6	<0.2	<0.2
Selenium	0.9	1.1	1.1	0.8	0.5	<0.5	0.6
Copper	33	87	43	57	28	9	16
Nickel	34	52	34	33	26	24	38
Zinc	145	323	78	298	171	55	82
Boron	0.9	0.8	3.1	1.2	1.2	<0.5	0.6

**ANALYTES TO BE DETERMINED ONLY IF THEIR
PRESENCE IS SUSPECTED**

Cobalt
Vanadium
Molybdenum
Germanium
Hexavalent Chromium

Benzene
Toluene
Ethylbenzene
Xylene

Mineral Oil (%)
Asbestos (%)

ADDITIONAL ANALYTES

Anthanthrene	5.3	7.7	12.7	4.8	5.1	3.1	4.7
Benzo(e)pyrene	3.6	10.6	19.3	2.6	3.2	3.6	3.6
Catechol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Resorcinol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Petroleum Hydrocarbons		<5	8				
Total Carbon			65618.7				
Total Hydrogen			<1000				
Total Nitrogen			<1000				

**NEW PROFORMA FOR REPORTING
ANALYTICAL RESULTS (SOIL)**

All analytical results to be reported as mg/kg ONLY
R50282A

Site Name: Emsworth

Date: 06/09/00

Laboratory: Environmental Analysis Ltd

Natural (N)/Made Ground (MG)

Date Sampled:	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00
Laboratory Sample Reference	61221	61223	61364	61365	61498	61501	61502
Trial Pit/Borehole No.	TCTP6	TCTP7	TCBH1	TCBH1	TCBH2	TCBH3	TCBH3
Sampling Depth (m)	0.50	0.50	0.60	1.00	3.80	1.20	2.30
Hardstanding at Surface (Y/N)							
CLAY CONTENT %	30	80	80	80	5	75	80
PH	7.8	8.2	7.9	8.0	8.1	7.6	8.1
%LOI	12.47	5.48	13.33	13.54	3.63	8.86	5.52
% Moisture	14.39	16.67	13.08	12.40	12.75	21.40	17.26
% Stones	29	19	0	0	61	0	12
Cresols	9.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Xylenols & Ethylphenols	23.7	0.6	<0.1	0.2	<0.1	0.2	<0.1
Naphthols	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenol	<0.1	2.0	<0.1	0.1	<0.1	0.6	<0.1
Trimethylphenol	18.0	0.3	<0.1	<0.1	<0.1	<0.1	<0.1
Total Phenols	50.9	2.9	<0.5	<0.5	<0.5	0.8	<0.5
Naphthalene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	<0.5	0.8	1.0	1.2	<0.5	2.1	1.2
Fluorene	1.8	0.6	3.0	3.2	1.3	5.7	3.3
Phenanthrene	18.2	3.6	4.8	4.9	<0.5	<0.5	<0.5
Anthracene	7.8	3.3	<0.5	<0.5	1.9	9.6	5.2
Fluoranthene	30.0	6.1	7.1	6.1	1.9	3.6	6.0
Pyrene	24.2	5.6	7.7	9.4	4.0	13.4	9.5
Benzo(a)anthracene	15.3	4.3	8.7	11.4	2.7	11.4	9.5
Chrysene	18.8	3.6	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	21.5	2.7	0.6	6.6	<0.5	1.1	3.9
Benzo(k)fluoranthene	21.6	2.8	0.8	6.5	<0.5	1.2	3.9
Benzo(a)pyrene	17.6	3.5	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	13.5	1.2	<0.5	<0.5	<0.5	1.9	<0.5
Di-benzo(a,h.)anthracene	13.4	1.4	<0.5	<0.5	<0.5	2.1	<0.5
Benzo(g,h,i.) Perylene	21.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total PAH	270.8	45.2	35.9	49.3	11.8	65.3	42.5
TOTAL PAH (DUTCH 10)	163.83	28.45	21.40	28.90	6.50	27.70	24.64
Easily Liberatable Cyanide	160.1	1.5	<1	<1	<1	1.3	<1
Complex Cyanide	2444.5	5.7	<1	<1	3.8	1.8	2.2
Total Cyanide	2604.6	7.2	<1	<1	4.4	3.2	2.2
Elemental Sulphur	7279	421	<10	<10	19	1011	<10
Water Soluble Sulphate	<100	<100	1198	586	<100	196	<100
Water Soluble Chloride	26	29	57	71	12	28	34
Exchangeable Ammonium	13.22	10.68	10.8	13.5	5.6	58.2	16.9
Arsenic	24.1	10.0	11.1	10.2	0.8	5.5	14.2
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	12	20	31	29	7	33	37
Lead	340	111	21	16	5	30	29
Mercury	1.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2
Selenium	0.9	0.6	<0.5	0.6	<0.5	0.8	<0.5
Copper	242	20	20	19	4	17	19
Nickel	25	29	46	47	8	31	51
Zinc	118	90	67	75	20	93	82
Boron	0.7	2.2	0.7	<0.5	<0.5	2.8	1.1

**ANALYTES TO BE DETERMINED ONLY IF THEIR
PRESENCE IS SUSPECTED**

Cobalt
Vanadium
Molybdenum
Germanium
Hexavalent Chromium

Benzene
Toluene
Ethylbenzene
Xylene

Mineral Oil (%)
Asbestos (%)

ADDITIONAL ANALYTES

Anthanthrene	24.1	3.4	2.2	<0.5	<0.5	8.9	<0.5
Benzo(e)pyrene	20.1	2.3	<0.5	<0.5	<0.5	4.3	<0.5
Catechol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Resorcinol	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Petroleum Hydrocarbons						<5	<5
Total Carbon					29302.8		
Total Hydrogen					<1000		
Total Nitrogen					<1000		

**NEW PROFORMA FOR REPORTING
ANALYTICAL RESULTS (SOIL)**

All analytical results to be reported as mg/kg ONLY
R50282A

Site Name: Emsworth

Date: 06/09/00

Laboratory: Environmental Analysis Ltd

Natural (N)/Made Ground (MG)

Date Sampled:	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00	14-17/08/00
Laboratory Sample Reference	61503	61504	61361	61211	61222
Trial Pit/Borehole No.	TCBH3	TCBH3	TCBH4	TCTP1	TCTP6
Sampling Depth (m)	3.30	4.50	2.00	0.60	2.50
Hardstanding at Surface (Y/N)					
CLAY CONTENT %	20	80	80	60	75
PH	8.5	8.4	8.3	8.2	7.7
%LOI	5.70	9.92	9.41	2.52	16.41
% Moisture	12.67	17.02	17.07	11.87	31.34
% Stones	0	0	0	41	0
Cresols	<0.1	<0.1	<0.1	<0.1	<0.1
Xylenols & Ethylphenols	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthols	<0.1	<0.1	<0.1	<0.1	<0.1
Phenol	<0.1	<0.1	0.3	<0.1	<0.1
Trimethylphenol	<0.1	<0.1	0.1	<0.1	<0.1
Total Phenols	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	<0.5	<0.5	0.8	<0.5	<0.5
Acenaphthene	1.1	0.9	1.5	0.8	1.5
Fluorene	3.2	3.1	1.2	1.5	6.0
Phenanthrene	<0.5	<0.5	8.4	<0.5	8.7
Anthracene	4.3	<0.5	<0.5	2.6	<0.5
Fluoranthene	5.6	5.3	2.5	2.8	3.1
Pyrene	12.8	12.9	4.3	3.5	5.2
Benzo(a)anthracene	8.1	<0.5	6.6	6.7	8.0
Chrysene	<0.5	2.7	<0.5	<0.5	<0.5
Benzo(b)fluoranthene	2.6	2.5	0.7	0.5	0.6
Benzo(k)fluoranthene	2.5	<0.5	0.7	0.6	0.7
Benzo(a)pyrene	<0.5	<0.5	2.9	<0.5	<0.5
Indeno(1,2,3-cd)pyrene	<0.5	<0.5	2.5	<0.5	<0.5
Di-benzo(a,h.)anthracene	<0.5	<0.5	2.8	<0.5	<0.5
Benzo(g,h,i.) Perylene	<0.5	<0.5	<0.5	<0.5	<0.5
Total PAH	40.2	27.4	40.2	22.2	38.5
TOTAL PAH (DUTCH 10)	20.50	8.00	23.61	12.69	20.50
Easily Liberatable Cyanide	<1	<1	<1	<1	3.3
Complex Cyanide	<1	<1	2.5	<1	24.3
Total Cyanide	<1	<1	2.5	<1	27.6
Elemental Sulphur	<10	<10	<10	<10	98
Water Soluble Sulphate	163	403	521	182	1633
Water Soluble Chloride	32	58	146	17	28
Exchangeable Ammonium	15.3	14.9	15.5	10.1	12.50
Arsenic	9.1	15.7	12.3	11.2	0.8
Cadmium	<0.5	<0.5	<0.5	<0.5	0.6
Chromium	16	36	29	12	7
Lead	9	22	18	13	18
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2
Selenium	0.6	0.8	1.5	<0.5	1.4
Copper	10	21	22	9	11
Nickel	30	51	54	26	12
Zinc	34	96	85	30	38
Boron	<0.5	1.1	0.7	<0.5	1.0

**ANALYTES TO BE DETERMINED ONLY IF THEIR
PRESENCE IS SUSPECTED**

Cobalt
Vanadium
Molybdenum
Germanium
Hexavalent Chromium

Benzene
Toluene
Ethylbenzene
Xylene

Mineral Oil (%)
Asbestos (%)

ADDITIONAL ANALYTES

Anthanthrene	<0.5	<0.5	2.5	3.2	4.7
Benzo(e)pyrene	<0.5	<0.5	2.8	<0.5	<0.5
Catechol	<0.1	<0.1	<0.1	0.3	<0.1
Resorcinol	<0.1	<0.1	<0.1	<0.1	<0.1
Total Petroleum Hydrocarbons	<5	<5	<5		
Total Carbon	93650.1				
Total Hydrogen	<1000				
Total Nitrogen	2298.3				

ENVIRONMENTAL ANALYSIS LTD

15 Burgess Road, Ivyhouse Lane Industrial Estate, Hastings, East Sussex. TN35 4NR

Fax: 01424 442299

Tel: 01424 444433

ANALYTICAL REPORT No. R50282

Location: Emsworth Transco, Hampshire

CLIENT: PB Kennedy & Donkin Ltd

Queen Victoria House, Redland Hill,
Redland, Bristol. BS6 6US

Your Job No: BEN40102E/
/100.1

Reporting Date: 8/31/00

Soils (VOC suite)	TP/BH		TCBH3	TCBH3	TCBH4	TCBH4
	Depth (m)		1.20	2.30	1.50	2.00
	Our ref		61501	61502	61360	61361
1,1-Dichloroethylene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Dichloromethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Hexane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
cis-1,2-Dichloroethylene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,1-Dichloroethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
2,2-Dichloropropane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
trans-1,2-Dichloroethylene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Chloroform (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Bromochloromethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,1,1-Trichloroethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Carbon Tetrachloride (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2-Dichloroethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Benzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Trichloroethylene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Bromodichloromethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Dibromomethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
cis-1,3-Dichloropropene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Toluene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
trans-1,3-Dichloropropene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,1,2-Trichloroethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,3-Dichloropropane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Tetrachloroethylene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Chlorodibromomethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Dibromoethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Chlorobenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Ethylbenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
meta & para Xylene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
ortho Xylene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Styrene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2,3-Trimethylbenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Bromoform (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,1,2,2-Tetrachloroethane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2,3-Trichloropropane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
n Propylbenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Bromobenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2,4-Trimethylbenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1-Chlorotoluene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
2-Chlorotoluene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
tert Butylbenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,3,5-Trimethylbenzene (mg/kg)	N		<0.02	<0.02	0.02	<0.02
1-Methylpropylbenzene (mg/kg)	N		<0.02	<0.02	0.02	<0.02
Methyl-isopropylbenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,4-Dichlorobenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,3-Dichlorobenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
n Butylbenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2-Dichlorobenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,2-Dibromo-3-Chloropropane (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
1,3,5-Trichlorobenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Hexachlorobutadiene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02
Naphthalene (mg/kg)	N		<0.02	<0.02	3.87	<0.02
1,2,4-Trichlorobenzene (mg/kg)	N		<0.02	<0.02	<0.02	<0.02

Descriptions of methods & performance data available on request.

N = NAMAS accredited test

V8

RJ

Checked by:

C.P.V. Knight

**NEW PROFORMA FOR REPORTING
ANALYTICAL RESULTS (LEACHATE)**

All analytical results to be reported as mg/l ONLY
R50815

Site Name: Emsworth Transco

Date: 29/09/00

Laboratory: Environmental Analysis Ltd

Date Sampled:	14-17/08/00	14-17/08/00	14-17/08/00
Laboratory Sample Reference	61360	61370	61221
Trial Pit/Borehole No.	TCBH4	TCBH2	TCTP6
Sampling Depth (m)	1.50	0.90	0.50
Hardstanding at Surface (Y/N)			
pH	8.4	7.8	7.9
TOC	7.4	21.7	8.8
Conductivity (µS/cm)	261	133	347
Cresols	<0.0001	<0.0001	<0.0001
Xylenols & Ethylphenols	<0.0001	<0.0001	<0.0001
Naphthols	<0.0001	<0.0001	<0.0001
Phenol	<0.0001	<0.0001	<0.0001
Trimethylphenol	<0.0001	<0.0001	<0.0001
Total Phenols	<0.0005	<0.0005	<0.0005
Naphthalene	<0.001	<0.001	0.004
Acenaphthylene	<0.001	<0.001	<0.001
Acenaphthene	<0.001	<0.001	<0.001
Fluorene	<0.001	<0.001	<0.001
Phenanthrene	<0.001	<0.001	<0.001
Anthracene	<0.001	<0.001	<0.001
Fluoranthene	<0.001	<0.001	<0.001
Pyrene	<0.001	<0.001	<0.001
Benzo(a)anthracene	<0.001	<0.001	<0.001
Chrysene	<0.001	<0.001	<0.001
Benzo(b)fluoranthene	<0.001	<0.001	<0.001
Benzo(k)fluoranthene	<0.001	<0.001	<0.001
Benzo(a)pyrene	<0.001	<0.001	<0.001
Indeno(1,2,3-cd)pyrene	<0.001	<0.001	<0.001
Di-benzo(a,h.)anthracene	<0.001	<0.001	<0.001
Benzo(g,h,i.) Perylene	<0.001	<0.001	<0.001
Total PAH	<0.001	<0.001	0.005
10 PAH Dutch	0.000	0.000	0.004
Easily Liberatable Cyanide	<0.5	<0.5	<0.5
Complex Cyanide	<0.5	<0.5	<0.5
Total Cyanide	<0.5	<0.5	<0.5
Sulphate	65	7	26
Ammonium	39.86	0.72	1.65
Arsenic	0.033	0.030	<0.01
Cadmium	<0.001	<0.001	<0.001
Chromium	<0.01	0.061	0.028
Lead	<0.01	0.235	0.010
Mercury	<0.0002	0.0006	<0.0002
Selenium	<0.02	<0.02	<0.02
Copper	<0.01	0.073	0.015
Nickel	<0.01	0.041	0.020
Zinc	0.016	0.423	0.061
Iron	0.123	22.609	14.401

**ANALYTES TO BE DETERMINED ONLY IF THEIR
PRESENCE IS SUSPECTED**

Cobalt
Vanadium
Molybdenum
Germanium
Uranium

Benzene
Toluene
Ethylbenzene
Xylene

Total Petroleum Hydrocarbons

ADDITIONAL ANALYTES

Anthanthrene	<0.001	<0.001	0.001
Benzo(e)pyrene	<0.001	<0.001	<0.001
Catechol	<0.0001	<0.0001	<0.0001
Resorcinol	<0.0001	<0.0001	<0.0001
Free Cyanide (by colorimetry)	0.008	0.005	<0.001
Complex Cyanide (by colorimetry)	0.227	0.065	0.065
Total Cyanide (by colorimetry)	0.235	0.070	0.065

**NEW PROFORMA FOR REPORTING
ANALYTICAL RESULTS (WATER)**

All analytical results to be reported as mg/l ONLY
R50282A

Site Name: Emsworth Transco

Date: 06/09/00

Laboratory: Environmental Analysis Ltd

Date Sampled:	14-17/08/00	8/24/00	14-17/08/00	8/24/00	14-17/08/00	8/24/00
Laboratory Sample Reference	61493	62172	61494	62173	61492	62171
Trial Pit/Borehole No.	TCBH2	TCBH2	TCBH3	TCBH3	TCBH4	TCBH4
Sampling Depth (m)	-	-	-	-	-	-
Hardstanding at Surface (Y/N)						
pH	7.1	6.8	7.1	7.0	7.5	7.1
TOC	9.4	5.2	8.9	5.3	8.8	9.3
Suspended Solids	93120	44	24868	48	1432	6
Conductivity (µS/cm)	820	500	1337	110	120	110
Cresols	0.0552	0.0079	0.0024	0.0015	0.0025	<0.0001
Xylenols & Ethylphenols	0.0595	0.0115	0.0183	0.0117	0.0070	<0.0001
Naphthols	0.0083	0.0008	0.0017	<0.0001	<0.0001	<0.0001
Phenol	0.0629	<0.0001	0.0051	0.0007	0.0014	<0.0001
Trimethylphenol	0.0211	0.0024	0.0121	0.0040	<0.0001	<0.0001
Total Phenols	0.2168	0.0282	0.0396	0.0234	0.0135	<0.0005
Naphthalene	0.270	<0.001	10.371	<0.001	6.090	<0.001
Acenaphthylene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Acenaphthene	11.188	<0.001	11.088	<0.001	<0.001	<0.001
Fluorene	5.598	<0.001	4.410	<0.001	<0.001	<0.001
Phenanthrene	40.000	<0.001	50.000	<0.001	28.618	<0.001
Anthracene	9.000	0.002	11.000	0.001	13.455	0.002
Fluoranthene	28.767	<0.001	33.370	<0.001	16.508	<0.001
Pyrene	4.020	<0.001	4.143	<0.001	2.745	<0.001
Benzo(a)anthracene	4.700	<0.001	2.310	<0.001	0.313	<0.001
Chrysene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(b)fluoranthene	5.074	<0.001	0.776	0.006	<0.001	<0.001
Benzo(k)fluoranthene	0.246	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(a)pyrene	3.132	<0.001	1.080	<0.001	0.371	<0.001
Indeno(1,2,3-cd)pyrene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Di-benzo(a,h.)anthracene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Benzo(g,h,i.) Perylene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total PAH	123.156	0.002	137.665	0.007	136.273	0.002
10 Dutch PAH	86.115	0.002	108.131	0.001	65.355	0.002
Easily Liberatable Cyanide	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Complex Cyanide	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Cyanide	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thiocyanate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Elemental Sulphur	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sulphate	101	36	270	82	323	332
Sulphide	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloride	28	23	86	37	76	105
Total Ammonium	1.80	1.03	1.08	0.72	0.93	0.77
Arsenic	<0.01	<0.01	<0.01	<0.01	0.011	<0.01
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.0025	0.0014
Selenium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.01	<0.01	<0.01	<0.01	0.024	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	0.015	0.038	0.026	0.052	0.095	0.046
Iron	0.883	0.423	0.066	0.303	0.632	0.080

**ANALYTES TO BE DETERMINED ONLY IF THEIR
PRESENCE IS SUSPECTED**

Cobalt
Vanadium
Molybdenum
Germanium
Hexavalent Chromium

Benzene
Toluene
Ethylbenzene
Xylene

Total Petroleum Hydrocarbons	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
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ADDITIONAL ANALYTES

Anthanthrene	11.161	<0.001	9.117	<0.001	68.173	<0.001
Benzo(e)pyrene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Catechol	0.0098	0.0056	<0.0001	0.0055	0.0026	<0.0001
Resorcinol	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Total Hardness	821	696	2817	683	1276	1234
Nitrate	<5		<5		13	
Easily Liberated Cyanide (by colorimetry)	<0.001	<0.001	<0.001	<0.001	<0.001	0.010
Complex Cyanide (by colorimetry)	0.155	0.250	0.010	0.005	0.235	0.180
Total Cyanide (by colorimetry)	0.155	0.250	0.010	0.005	0.235	0.190

**NEW PROFORMA FOR REPORTING
ANALYTICAL RESULTS (WATER)**

All analytical results to be reported as mg/l ONLY
R50375

Site Name: Emsworth Transco

Date: 13/09/00

Laboratory: Environmental Analysis Ltd

Date Sampled:	TCBH2 8/24/00
Laboratory Sample Reference	62174
Borehole No.	Check
Sampling Depth (m)	-
Hardstanding at Surface (Y/N)	

pH	6.8
TOC	4.9
Suspended Solids	24
Conductivity (µS/cm)	500

Cresols	0.0085
Xylenols & Ethylphenols	0.0113
Naphthols	0.0008
Phenol	0.0098
Trimethylphenol	0.0043
Total Phenols	0.0416

Naphthalene	<0.001
Acenaphthylene	<0.001
Acenaphthene	<0.001
Fluorene	<0.001
Phenanthrene	<0.001
Anthracene	0.001
Fluoranthene	<0.001
Pyrene	<0.001
Benzo(a)anthracene	<0.001
Chrysene	<0.001
Benzo(b)fluoranthene	<0.001
Benzo(k)fluoranthene	<0.001
Benzo(a)pyrene	<0.001
Indeno(1,2,3-cd)pyrene	<0.001
Di-benzo(a,h.)anthracene	<0.001
Benzo(g,h,i.) Perylene	<0.001
Total PAH	0.001
10 PAH Dutch	0.001
Easily Liberatable Cyanide	<0.5
Complex Cyanide	<0.5
Total Cyanide	<0.5
Thiocyanate	<0.1
Elemental Sulphur	<0.1
Sulphate	36
Sulphide	<0.1
Chloride	23
Total Ammonium	0.93

Arsenic	<0.01
Cadmium	<0.001
Chromium	<0.01
Lead	<0.01
Mercury	<0.0002
Selenium	<0.02
Copper	<0.01
Nickel	<0.01
Zinc	0.039
Iron	0.462

**ANALYTES TO BE DETERMINED ONLY IF THEIR
PRESENCE IS SUSPECTED**

Cobalt
Vanadium
Molybdenum
Germanium
Hexavalent Chromium

Benzene
Toluene
Ethylbenzene
Xylene

Total Petroleum Hydrocarbons	<0.1
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ADDITIONAL ANALYTES

Anthanthrene	<0.001
Benzo(e)pyrene	<0.001
Catechol	0.0043
Resorcinol	0.0026
Total Hardness	517
	0.005
	0.290
	0.295

ENVIRONMENTAL ANALYSIS LTD

15 Burgess Road, Ivyhouse Lane Industrial Estate, Hastings, East Sussex. TN35 4NR

Fax: 01424 442299

Tel: 01424 444433

ANALYTICAL REPORT No. R50375

Location: Emsworth Transco

CLIENT: PB Kennedy & Donkin Ltd

Queen Victoria House, Redland Hill,
Redland, Bristol. BS6 6US

Your Job No: BEN40102E

/100.1

Reporting Date: 9/1/00

Sampling Date: 8/24/00

<u>Waters (VOC suite)</u>	Sample ref	TCBH4	TCBH2	TCBH3
	Our ref	62171	62172	62173
1,1-Dichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
Dichloromethane	(mg/l) N	<0.001	<0.001	<0.001
Hexane	(mg/l) N	<0.001	<0.001	<0.001
cis-1,2-Dichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
1,1-Dichloroethane	(mg/l) N	<0.001	<0.001	<0.001
2,2-Dichloropropane	(mg/l) N	<0.001	<0.001	<0.001
trans-1,2-Dichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
Chloroform	(mg/l) N	<0.001	<0.001	<0.001
Bromochloromethane	(mg/l) N	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichloropropene	(mg/l) N	<0.001	<0.001	<0.001
Carbon Tetrachloride	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichloroethane	(mg/l) N	<0.001	<0.001	<0.001
Benzene	(mg/l) N	<0.001	<0.001	<0.001
Trichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichloropropane	(mg/l) N	<0.001	<0.001	<0.001
Bromodichloromethane	(mg/l) N	<0.001	<0.001	<0.001
Dibromomethane	(mg/l) N	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	(mg/l) N	<0.001	<0.001	<0.001
Toluene	(mg/l) N	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	(mg/l) N	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	(mg/l) N	<0.001	<0.001	<0.001
1,3-Dichloropropane	(mg/l) N	<0.001	<0.001	<0.001
Tetrachloroethylene	(mg/l) N	<0.001	<0.001	<0.001
Chlorodibromomethane	(mg/l) N	<0.001	<0.001	<0.001
Dibromoethane	(mg/l) N	<0.001	<0.001	<0.001
Chlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
Ethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
meta & para Xylene	(mg/l) N	<0.001	<0.001	<0.001
ortho Xylene	(mg/l) N	<0.001	<0.001	<0.001
Styrene	(mg/l) N	<0.001	<0.001	<0.001
1,2,3-Trimethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
Bromoform	(mg/l) N	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	(mg/l) N	<0.001	<0.001	<0.001
1,2,3-Trichloropropane	(mg/l) N	<0.001	<0.001	<0.001
n Propylbenzene	(mg/l) N	<0.001	<0.001	<0.001
Bromobenzene	(mg/l) N	<0.001	<0.001	<0.001
1,2,4-Trimethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1-Chlorotoluene	(mg/l) N	<0.001	<0.001	<0.001
2-Chlorotoluene	(mg/l) N	<0.001	<0.001	<0.001
tert Butylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1,3,5-Trimethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1-Methylpropylbenzene	(mg/l) N	<0.001	<0.001	<0.001
Methyl-isopropylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
n Butylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dibromo-3-Chloropropane	(mg/l) N	<0.001	<0.001	<0.001
1,3,5-Trichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
Hexachlorobutadiene	(mg/l) N	<0.001	<0.001	<0.001
Naphthalene	(mg/l) N	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001

Descriptions of methods & performance data available on request.

N = NAMAS accredited test

V8

RJ

Checked by:

C.P.V. Knight

ENVIRONMENTAL ANALYSIS LTD

15 Burgess Road, Ivyhouse Lane Industrial Estate, Hastings, East Sussex. TN35 4NR

Fax: 01424 442299

Tel: 01424 444433

ANALYTICAL REPORT No. R50282A

Location: Emsworth Transco, Hampshire

CLIENT: PB Kennedy & Donkin Ltd

Queen Victoria House, Redland Hill,
Redland, Bristol. BS6 6US

Your Job No: BEN40102E

TRANSCO

Reporting Date:

/100.1

8/31/00

<u>Waters (VOC suite)</u>	Sample ref	TCBH2	TCBH3	TCBH4
	Depth (m)	-	-	-
	Our ref	61493	61494	61492
1,1-Dichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
Dichloromethane	(mg/l) N	<0.001	<0.001	<0.001
Hexane	(mg/l) N	<0.001	<0.001	<0.001
cis-1,2-Dichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
1,1-Dichloroethane	(mg/l) N	<0.001	<0.001	<0.001
2,2-Dichloropropane	(mg/l) N	<0.001	<0.001	<0.001
trans-1,2-Dichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
Chloroform	(mg/l) N	<0.001	<0.001	<0.001
Bromochloromethane	(mg/l) N	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichloropropene	(mg/l) N	<0.001	<0.001	<0.001
Carbon Tetrachloride	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichloroethane	(mg/l) N	<0.001	<0.001	<0.001
Benzene	(mg/l) N	<0.001	<0.001	<0.001
Trichloroethylene	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichloropropane	(mg/l) N	<0.001	<0.001	<0.001
Bromodichloromethane	(mg/l) N	<0.001	<0.001	<0.001
Dibromomethane	(mg/l) N	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	(mg/l) N	<0.001	<0.001	<0.001
Toluene	(mg/l) N	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	(mg/l) N	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	(mg/l) N	<0.001	<0.001	<0.001
1,3-Dichloropropane	(mg/l) N	<0.001	<0.001	<0.001
Tetrachloroethylene	(mg/l) N	<0.001	<0.001	<0.001
Chlorodibromomethane	(mg/l) N	<0.001	<0.001	<0.001
Dibromoethane	(mg/l) N	<0.001	<0.001	<0.001
Chlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
Ethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
meta & para Xylene	(mg/l) N	<0.001	<0.001	<0.001
ortho Xylene	(mg/l) N	<0.001	<0.001	<0.001
Styrene	(mg/l) N	<0.001	<0.001	<0.001
1,2,3-Trimethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
Bromoform	(mg/l) N	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	(mg/l) N	<0.001	<0.001	<0.001
1,2,3-Trichloropropane	(mg/l) N	0.004	<0.001	0.005
n Propylbenzene	(mg/l) N	<0.001	<0.001	<0.001
Bromobenzene	(mg/l) N	<0.001	<0.001	<0.001
1,2,4-Trimethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1-Chlorotoluene	(mg/l) N	<0.001	<0.001	<0.001
2-Chlorotoluene	(mg/l) N	<0.001	<0.001	<0.001
tert Butylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1,3,5-Trimethylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1-Methylpropylbenzene	(mg/l) N	<0.001	<0.001	<0.001
Methyl-isopropylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
n Butylbenzene	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
1,2-Dibromo-3-Chloropropane	(mg/l) N	<0.001	<0.001	<0.001
1,3,5-Trichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001
Hexachlorobutadiene	(mg/l) N	<0.001	<0.001	<0.001
Naphthalene	(mg/l) N	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	(mg/l) N	<0.001	<0.001	<0.001

Descriptions of methods & performance data available on request.

N = NAMAS accredited test

V8

RJ

Checked by:

C.P.V. Knight

ENVIRONMENTAL ANALYSIS LTD

15 Burgess Road, Ivyhouse Lane Industrial Estate, Hastings, East Sussex. TN35 4NR

Fax: 01424 442299

Tel: 01424 444433

ANALYTICAL REPORT No. R50375

Location: Emsworth

CLIENT: PB Kennedy & Donkin Ltd

Queen Victoria House, Redland Hill,
Redland, Bristol. BS6 6US

Your Job No: BEN40102E

/100.1

Reporting Date: 9/1/00

Sampling Date: 8/24/00

<u>Waters (VOC suite)</u>	Sample ref	TCBH2
	Our ref	Check
		62174
1,1-Dichloroethylene	(mg/l) N	<0.001
Dichloromethane	(mg/l) N	<0.001
Hexane	(mg/l) N	<0.001
cis-1,2-Dichloroethylene	(mg/l) N	<0.001
1,1-Dichloroethane	(mg/l) N	<0.001
2,2-Dichloropropane	(mg/l) N	<0.001
trans-1,2-Dichloroethylene	(mg/l) N	<0.001
Chloroform	(mg/l) N	<0.001
Bromochloromethane	(mg/l) N	<0.001
1,1,1-Trichloroethane	(mg/l) N	<0.001
1,2-Dichloropropane	(mg/l) N	<0.001
Carbon Tetrachloride	(mg/l) N	<0.001
1,2-Dichloroethane	(mg/l) N	<0.001
Benzene	(mg/l) N	<0.001
Trichloroethylene	(mg/l) N	<0.001
1,2-Dichloropropane	(mg/l) N	<0.001
Bromodichloromethane	(mg/l) N	<0.001
Dibromomethane	(mg/l) N	<0.001
cis-1,3-Dichloropropene	(mg/l) N	<0.001
Toluene	(mg/l) N	<0.001
trans-1,3-Dichloropropene	(mg/l) N	<0.001
1,1,2-Trichloroethane	(mg/l) N	<0.001
1,3-Dichloropropane	(mg/l) N	<0.001
Tetrachloroethylene	(mg/l) N	<0.001
Chlorodibromomethane	(mg/l) N	<0.001
Dibromoethane	(mg/l) N	<0.001
Chlorobenzene	(mg/l) N	<0.001
Ethylbenzene	(mg/l) N	<0.001
meta & para Xylene	(mg/l) N	<0.001
ortho Xylene	(mg/l) N	<0.001
Styrene	(mg/l) N	<0.001
1,2,3-Trimethylbenzene	(mg/l) N	<0.001
Bromoform	(mg/l) N	<0.001
1,1,2,2-Tetrachloroethane	(mg/l) N	<0.001
1,2,3-Trichloropropane	(mg/l) N	<0.001
n Propylbenzene	(mg/l) N	<0.001
Bromobenzene	(mg/l) N	<0.001
1,2,4-Trimethylbenzene	(mg/l) N	<0.001
1-Chlorotoluene	(mg/l) N	<0.001
2-Chlorotoluene	(mg/l) N	<0.001
tert Butylbenzene	(mg/l) N	<0.001
1,3,5-Trimethylbenzene	(mg/l) N	<0.001
1-Methylpropylbenzene	(mg/l) N	<0.001
Methyl-isopropylbenzene	(mg/l) N	<0.001
1,4-Dichlorobenzene	(mg/l) N	<0.001
1,3-Dichlorobenzene	(mg/l) N	<0.001
n Butylbenzene	(mg/l) N	<0.001
1,2-Dichlorobenzene	(mg/l) N	<0.001
1,2-Dibromo-3-Chloropropane	(mg/l) N	<0.001
1,3,5-Trichlorobenzene	(mg/l) N	<0.001
Hexachlorobutadiene	(mg/l) N	<0.001
Naphthalene	(mg/l) N	<0.001
1,2,4-Trichlorobenzene	(mg/l) N	<0.001

Descriptions of methods & performance data available on request.

N = NAMAS accredited test

V8

RJ

Checked by:

C.P.V. Knight

Environmental Analysis Ltd Quality Statement

Environmental Analysis Ltd carry out laboratory work in line with standard industry practices. EAL are UKAS accredited and work within the guidelines set out by the accreditation body, this involves calibration of equipment where required and maintenance of all equipment and staff training records to ensure consistency of quality in the work carried out.

Part of the quality control procedure involves analysis of standard materials provided by external quality control schemes, such as CONTEST, LEAP, WASP, AIMS and RICE. Internal measures include the running of blanks, standards, lab standards and spikes with each batch of samples. Where necessary, for equipment requiring daily or method calibration, standard solutions are purchased with certificates of analysis indicating their validated concentrations.

Shewart control charts are used to plot values of laboratory standards to give an easy interpretation of the continued method performance.

For reporting purposes a statement of compliance with internal quality checks will be made with each report, any deviations will be commented on at this stage. Specific analytes, or jobs, and their appropriate control charts are available on request from our quality manager.

For British Gas work samples are analysed and reported within the requirements of BG Environmental Assessment Guidance Document, version as requested by the client, currently the majority of work is to version 2.5

Cyanide analysis – EAL In-House colourimetric methodology

Total Cyanide

Cyanide is extracted from water samples by distillation of a strongly acidified sample. The liberated free hydrogen cyanide is trapped in an alkaline solution. The cyanide is then quantified by reaction with pyridine/barbituric acid reagent and measured colourimetrically by comparison with cyanide solutions of known concentration.

Easily Liberatable Cyanide

The sample is treated as above except that the free hydrogen cyanide is liberated from a slightly acidified sample by distillation. The method does not recover cyanide from tightly bound complexes.

Complex Cyanide

The mathematical difference between Total and Free cyanides.

APPENDIX 5

SERVICE DRAWINGS

British Telecommunications plc

IMPORTANT WARNING

Information concerning the location of British Telecommunications plc apparatus given for your assistance and is intended for general guidance only, no guarantee is given of its accuracy. As British Telecommunications plc apparatus may exist at various depths, and its routes may deviate within the vicinity of the highlighted areas, this information must not be relied upon in the event of excavations or other works made within or near the highlighted area.

FOR FREE ON-SITE APPARATUS LOCATION AND MARKING IN THIS AREA CONTACT OUR 'DIAL BEFORE YOU DIG' SERVICE ON:-

0800 317 521

Please ensure your contractor is aware of this reference number:-

REFERENCE NUMBER: X.418/98.SHT.2.2
 EXCHANGE AREA: E.MSWORTH
 OS MAP REF: SU.74.06SE
 DRN: 1/2 CKD: 7/4
 DATE: 5.8.98

Telecommunications apparatus is shown thus:-

POLE & OVERHEAD

ELECTRICITY POLE WITH BT ATTACHMENT

DISTRIBUTION POINTS

PUBLIC TELEPHONE KIOSK

FLEXIBILITY POINTS

CABLE ON WALL

UNDERGROUND ROUTE

BURIED JOINTING POINTS

SURFACE JOINTBOX

MANHOLE

RE-RECORDED APPARATUS

OVERHEAD

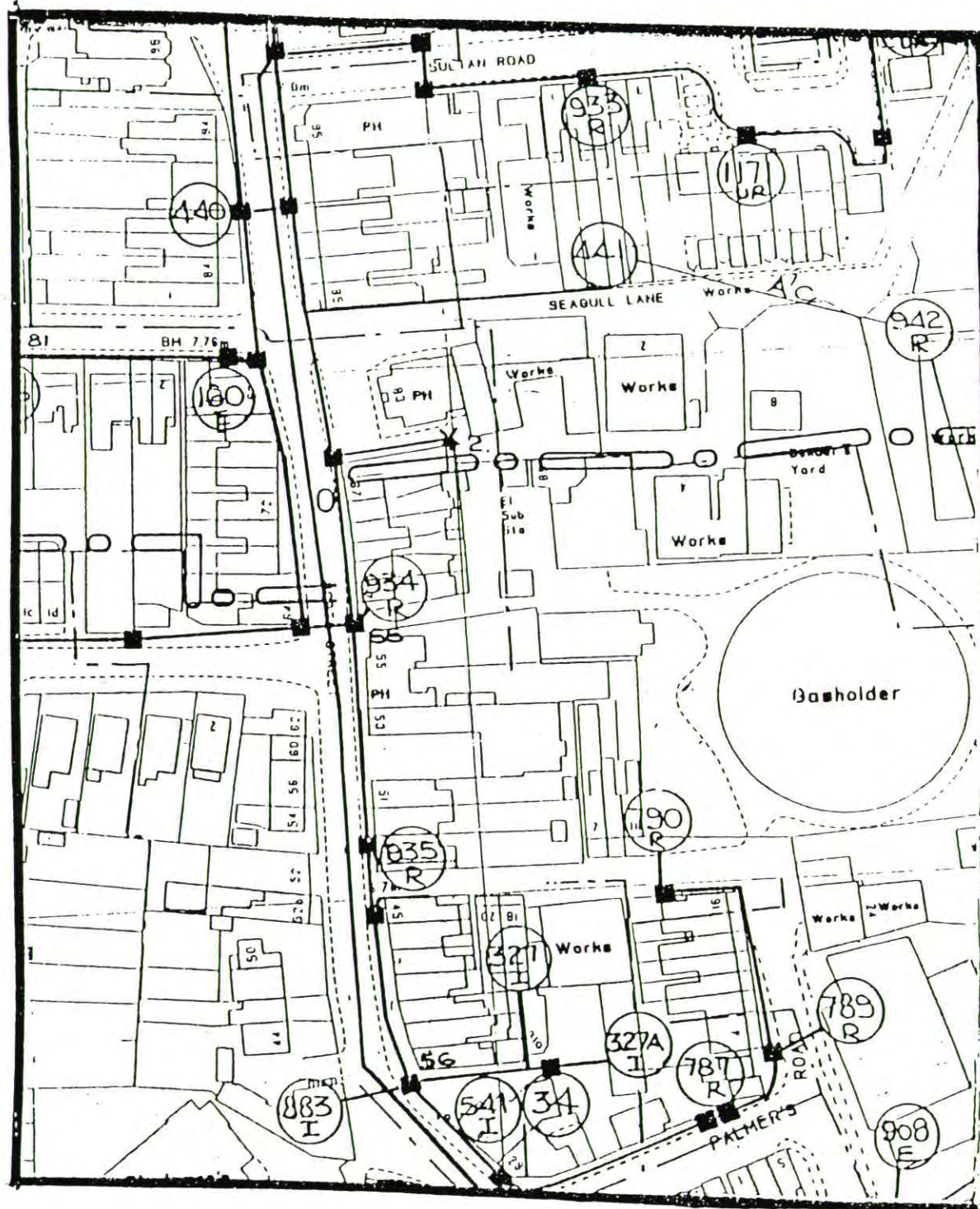
UNDERGROUND

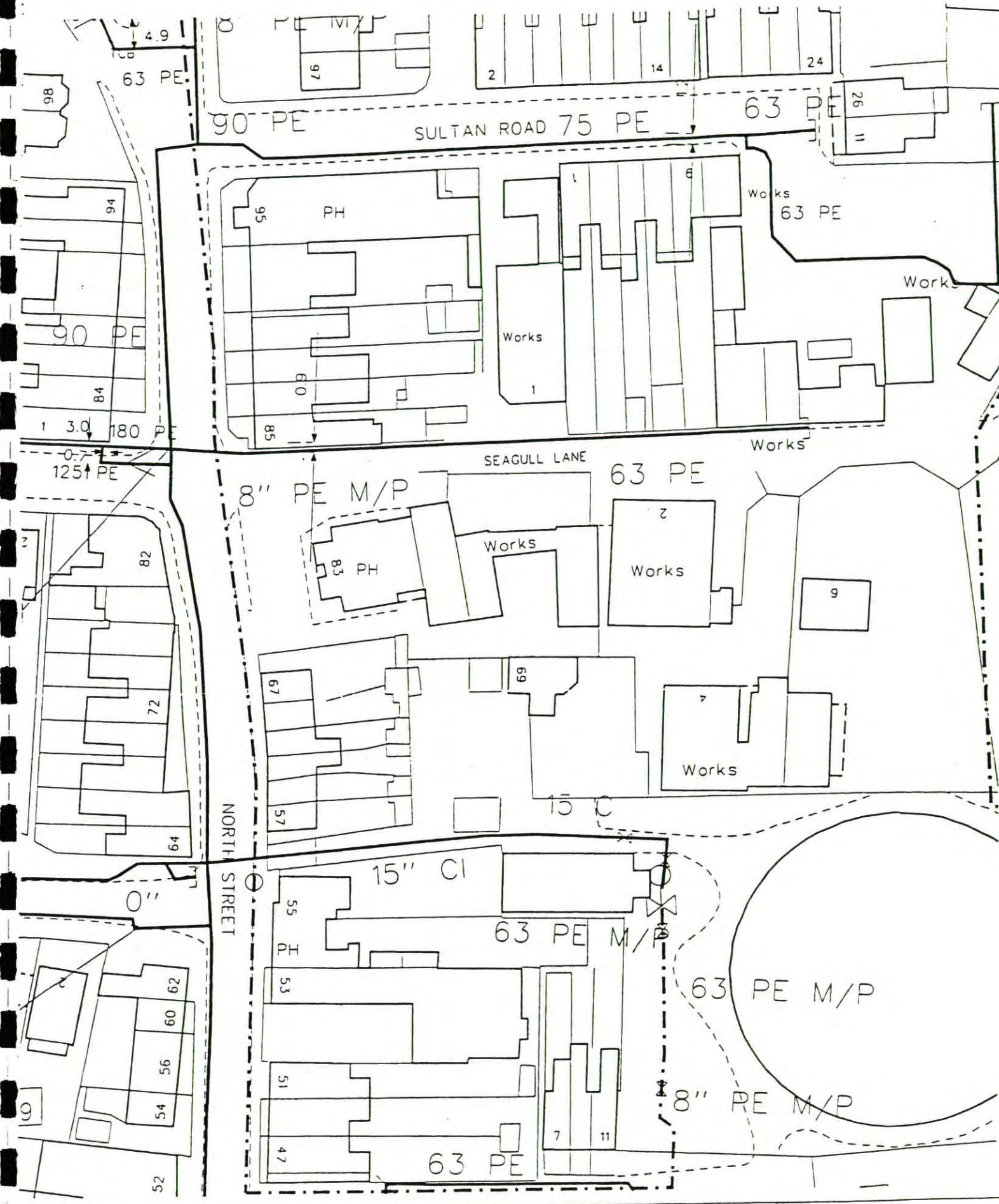
Common non-apparatus symbols that may appear include:-

BOUNDARY MARKER (May be blocked in)

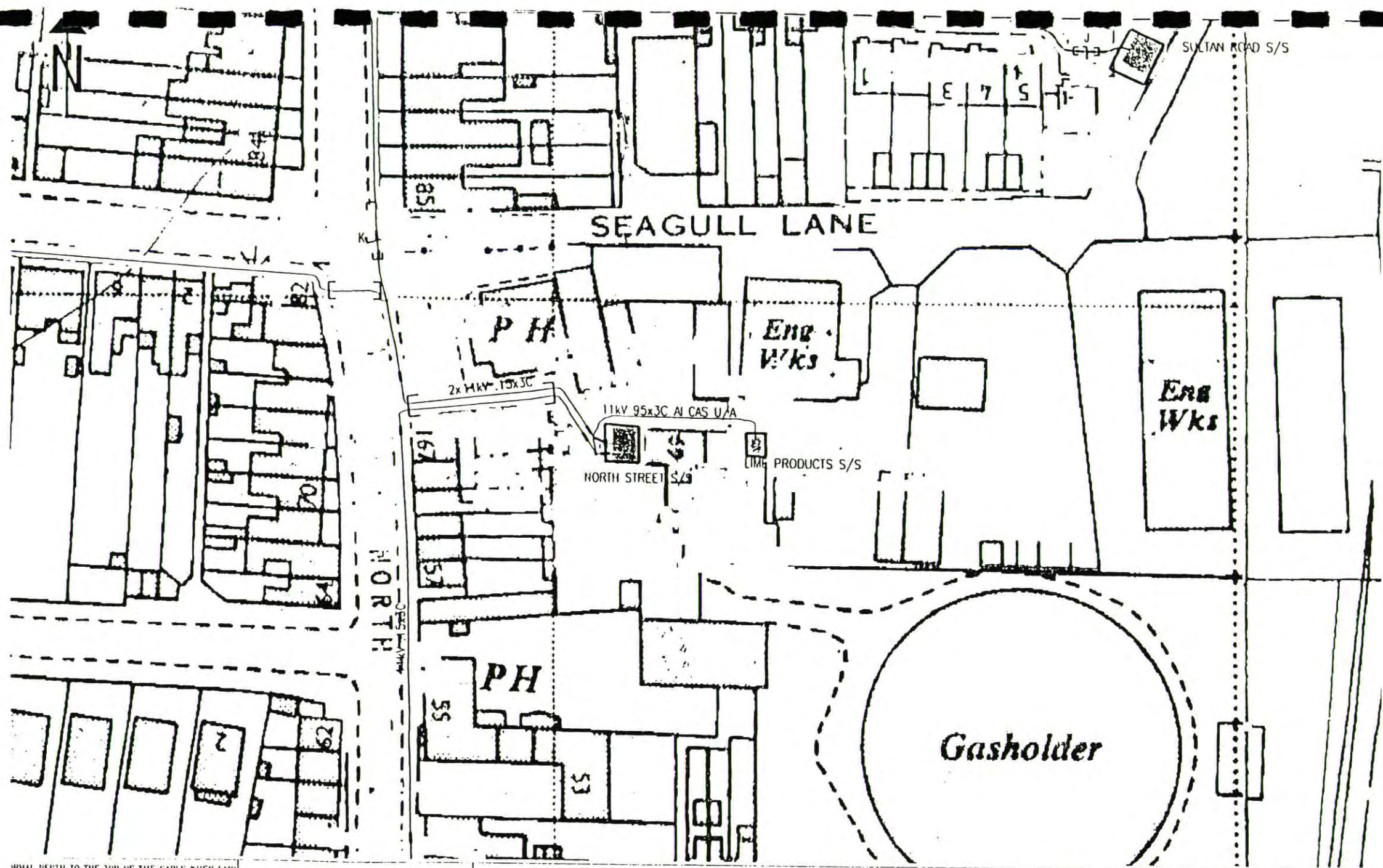
CONSERVATION AREA

NOTE: RECORDED PLANT COULD EXIST ON THIS MAP. ALL OTHER SYMBOLS RELATE TO BT TECHNICAL DATA AND ARE NOT SCALE REPRESENTATIONS OF THE BT PLANT. MANHOLES MAY BE





SCALE: 1:500 DRAWN BY: CASUALT DATE: 3-AUG-98 NRSWA RESPONSE MAP NOS. 174065C	This plan is reproduced from or based on the OS survey map by BG plc, with the sanction of the controller of HM Stationary Office. Crown Copyright Reserved.	The information on this plan is given without obligation or warranty. The accuracy is not guaranteed. BG PLC, its agents and servants accept no liability for any error or omission. Service pipes are not shown but may be present. The position of mains and services must be fixed on-site before any mechanical plant is used. This plan shows Transco's pipes but not non Transco pipes. Contact the owners for details of such pipes.	INDEX: - LP MAINS - UP MAINS - IP MAINS - RIP MAINS - RHP MAINS - NHP MAINS - MAINS TO BE ABANDONED	DIGITAL MAPPING TRANSCO DISTRICT Wesssex District
---	---	--	--	---



DEPTH TO THE TOP OF THE CABLE WHEN Laid

	services	1v	1v	ch	ch
FOOTPATH	0.10m	0.15m	0.60m	0.75m	
ROAD CROSSING	0.65m	0.60m	0.75m	0.90m	
1v/services	up to 1000V				

WARNING

There may have been subsequent alterations to the surface levels. Trial holes must be taken to determine position and depth of cables. 100 (P) 17 (B) should be taken to determine position and depth of cables. 100 (P) 17 (B) should be taken to determine position and depth of cables. 100 (P) 17 (B) should be taken to determine position and depth of cables.

BASED UPON THE ORIGINALLY SURVEYED MAP WITH THE SANCTION OF THE CONTROLLER OF THE METROPOLITAN POLICE (LONDON) CONVEYANCE DIVISION

This map has been made by or under the authority of SOUTHERN ELECTRIC plc. It is not to be used for any other purpose without the written consent of SOUTHERN ELECTRIC plc. It is not to be used for any other purpose without the written consent of SOUTHERN ELECTRIC plc.

UNCONTROLLED COPY

Subject to Revision Master held at

North Street, Emsworth



Scale 1:500

NOTE: Where there is more than one outgoing pipe the invert level may be against the wrong pipe.

1 : 1000

Node	Cover	Invert	Size	S Mat
0201	3.82	0.36	675	C CP
0250	4.466	4.086		
0302X	4.712			
0302Y	4.712	0.692		
0303	4.852	2.812		
1202	4.15	0.15	900	C CP
6102	3.789	1.489		
6203	4.877	1.967		
6253	4.849	1.899		
7052	6.067	4.677		
7101	3.571	1.671		
7102	3.624	1.424		
7150	3.565	1.825		
7201	4.733	2.393		
7250	4.027	3.077		
8050	6.742	5.092		
8101	6.940	4.940		
8102	6.998	4.658		
8103	7.014	5.874		
8104	6.652	5.082		
8100				
8150	6.793	5.463		
8151	6.718	5.968		
8201	7.085	3.045		
8202X	6.983	2.773		
8202Y	6.983	5.093		
8203	5.919	2.519		
8250	5.793	4.293		
8251	6.987	4.437		
8252	7.127	4.597		
8253	7.119	5.839		
8254	6.893	6.093		
8351				
9001	4.784	1.874		
9101	6.736	5.676		
9102	6.480	5.280		
9103	5.476	1.999		
9150	6.139	4.909		
9151	5.450	4.750		
9201	4.481	2.301		
9202	6.211	4.331		
9250	6.388	4.838		
9251	6.254	5.024		
9252	4.976	4.436		
9301	7.759	1.459		
9302	6.685	3.095		
9303	6.233	1.133		

* denotes that pipe details may be against the wrong XYZ pipe.

LINE STYLES/COLOURS

Brown	— . — . — . — . — .	Foul
Red	— S — S — S — S — S	Foul Syphon Sewer
	— S — S — S — S — S	Combined
Dark Blue	— . — . — . — . — .	Combined Syphon Sewer
Purple	— . — . — . — . — .	Treated Effluent
Light Blue	— . — . — . — . — .	Sludge
Green	— . — . — . — . — .	Surface Water
	— . — . — . — . — .	Foul Rising Main
	— . — . — . — . — .	Combined Rising Main
	— . — . — . — . — .	Surface Water Rising Main
	— . — . — . — . — .	Foul Vacuum Main

MATERIALS

BRC	Brick (Common)
BRE	Brick (Engineering)
CI	Cast Iron
CO	Concrete (In-situ)
CP	Concrete (Pre-cast)
PF	Pitch Fibre
VC	Vitrified Clay

SHAPES (S)

A	Arched
C	Circular
E	Egg
R	Rectangular

—○— Manhole (SW)

—●— Manhole (F&C)

—□— LH Lamp hole (SW)

—■— LH Lamp hole (F&C)

—△— Pumping station (SW)

—▲— Pumping station (F&C)

—└— Outfall

—□— SO Storm overflow

—●— Backdrop manhole

—◆— Air valve

—○— HB Hatch box

—┐— Inlet

—□— WTW Wastewater treatment works

—■— VT Vent

—■— VE Vent column

NODE REFERENCING SYSTEM

1st digit: hundred metre easting identifier
 2nd digit: hundred metre northing identifier
 3rd digit: sewer type identifier
 0-4 = Foul/Combined
 5-9 = Surface Water
 4th digit: next sequential node

PUBLIC SEWER PIPES

PAGE .1.

LINE STYLES / COLOURS

	FOUL SEWER (brown)
	FOUL SYPHON (brown)
	COMBINED SEWER (red)
	COMBINED SYPHON (red)
	TREATED EFFLUENT PIPE (dark blue)
	SLUDGE PIPE (purple)
	SURFACE WATER SEWER (light blue)
	FOUL RISING MAIN (brown)
	COMBINED RISING MAIN (red)
	SURFACE WATER RISING MAIN (light blue)
	FOUL VACUUM MAIN (brown)

COLOURS

light blue	- surface water
red	- combined
brown	- foul
purple	- sludge /
pink	- catchment boundary (swe boundary extent)

MATERIALS

AK	ALKATHENE	MAC	MASONRY IN REGULAR COURSES
BRC	BRICK (common)	MAR	MASONRY IN RANDOM COURSES
BRE	BRICK (engineering)	PE	POLYETHYLENE
CC	CONCRETE BOX CULVERT	PF	PITCH FIBRE
CI	CAST IRON	PP	POLYPROPYLENE
CO	CONCRETE (in-situ)	PVC	POLYVINYL CHLORIDE
CP	CONCRETE (pre-cast)	RPM	REINFORCED PLASTIC MATRIX
CSB	CONCRETE SEGMENTS (bolted)	SI	SPUN IRON
CSU	CONCRETE SEGMENTS (unbolted)	ST	STEEL
DI	DUCTILE IRON	VC	VITRIFIED CLAY
FRC	FIBRE REINFORCED CEMENT	XXX	OTHER
GRC	GLASS REINFORCED CONCRETE	ZZZ	UNKNOWN
GRP	GLASS REINFORCED PLASTIC		

SHAPES

A	ARCHED	B	BARREL	C	CIRCULAR
E	EGG	H	HORSESHOE	R	RECTANGULAR
S	SQUARE	T	TRAPEZOIDAL	U	U SHAPED
X	OTHER				

NODE REFERENCING SYSTEM

1ST DIGIT	: Hundred metre Easting identifier
2ND DIGIT	: Hundred metre Northing identifier
3RD DIGIT	: Sewer Type identifier 0-4 Foul / Combined 5-9 Surface water
4TH DIGIT	: Next sequential node

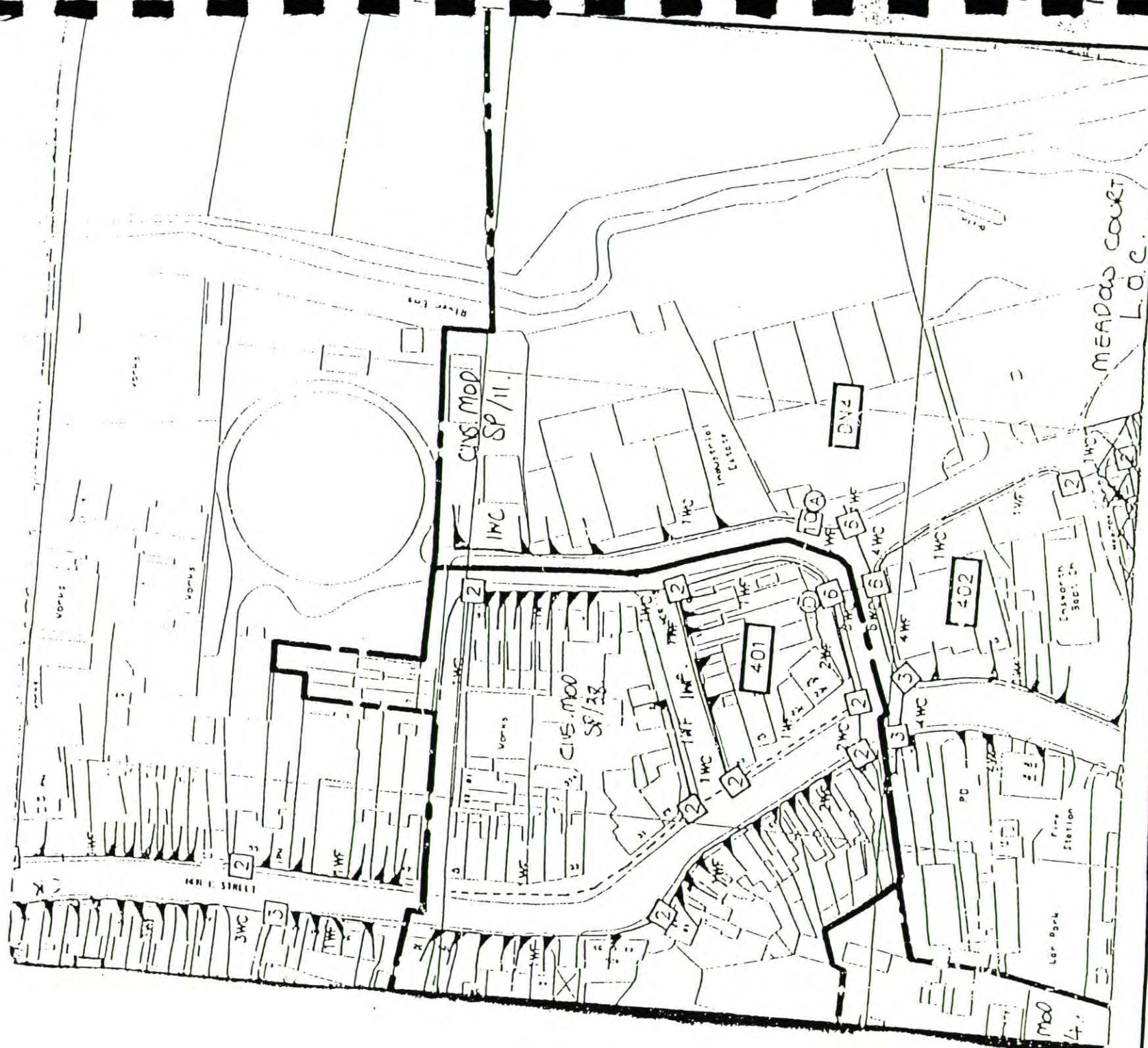
PUBLIC SEWER FEATURES
PAGE . 2 .

	MANHOLE (SW)		MANHOLE (F&C)		WO	WASHOUT (SW)
	MANHOLE (F&C)		WO	WASHOUT (F&C)	WO	WASHOUT (F&C)
	LH	LAMPHOLE (SW)	RE	RODDING EYE (SW)	RE	RODDING EYE (F&C)
	LH	LAMPHOLE (F&C)	GP	GAUGING POINT (SW)	GP	GAUGING POINT (F&C)
		PUMPING STATION (F&C)	IC	INTERCEPT CHAMBER (F&C)	IC	INTERCEPT CHAMBER (SW)
		PUMPING STATION (SW)	ST	STORM TANK (F&C)	ST	STORM TANK (SW)
		SIDE ENTRY MANHOLE (SW)	VC	VORTEX CHAMBER (F&C)	VC	VORTEX CHAMBER (SW)
		SIDE ENTRY MANHOLE (F&C)		FLAP VALVE		FLAP VALVE
	BS	BLIND SHAFT (F&C)	CC	CASCADE		CASCADE
	BS	BLIND SHAFT (SW)	AN	ANODE		ANODE
		DUMMY / SEC 24 MANHOLE		VALVE		VALVE
		INLET / OUTFALL		AIR VALVE		AIR VALVE
	?	OTHER UNKNOWN (F&C)	HB	HATCH BOX (SW)		HATCH BOX (SW)
	?	OTHER UNKNOWN (SW)		DIRECTIONAL FLOW ARROW		DIRECTIONAL FLOW ARROW
		BACKDROP	EM	EMPTYING VALVE		EMPTYING VALVE
	PK	PENSTOCK CHAMBER (SW)	CP	CATCHPIT		CATCHPIT
	DB	DAMBOARDS	S	SORKAWAY		SORKAWAY
	SO	STORM OVERFLOW	BP	BALANCING POND		BALANCING POND
		CHANGE IN SEWER	WWTW	WASTEWATER TREATMENT WORKS		WASTEWATER TREATMENT WORKS
		REFLUX VALVE	MTW	MARINE TREATMENT WORKS		MARINE TREATMENT WORKS
	WD	WATER TIGHT DOOR (SW)	TST	TIDAL STORAGE TANK		TIDAL STORAGE TANK
	WD	WATER TIGHT DOOR (F&C)		OUTFALL HEADWORKS		OUTFALL HEADWORKS
	FC	FLUSHING CHAMBER Mn-e (SW)	B	BLANK END		BLANK END
	FC	FLUSHING CHAMBER Mn-e (F&C)	VE	VENT COLUMN		VENT COLUMN
	FC	FLUSHING CHAMBER No-e (F&C)		HATCH BOX (F&C)		HATCH BOX (F&C)
	FC	FLUSHING CHAMBER No-e (SW)				
		HEAD OF PUBLIC SEWER				

LEGEND - MAINS WATER

PIPE			
	Distribution Main / Communication Pipe		Sluice Valve
	Trunk Main		Closed Valve
	Raw Water Main		Air Valve
	Non Portable		Butterfly Valve
	Abandoned Main		Pressure Reducing Valve
	Proposed Main		Reflux Valve
	Fire Main		Motorised Valve
	Non SWS		Clockwise Closing Valve
	Telemetry Cable		Insertion Flow Meter Point
	Leak Noise Correlator Survey Point		Hydrant
	Dialysis Machine		Double Hydrant
	Anode		Washout
	Access Point / Hatch Box		Washout Hydrant
	Break Pressure Tank		Meter
	Change Node		Capped End
	Pumping Station		Emptying Plug
	Booster Station		Stopcock
	Service Reservoir		
	Water Supply Works		
	Borehole / Well		
	Intake		
	Customer Site		
	Air Cock		
	Swab Insertion Point		
	Water Tower		

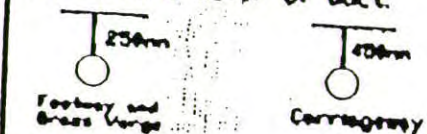
MATERIALS	
ALKATHENE	AK
CAST IRON	CI
SPUN (GRAY) IRON	SI
CONCRETE	CO
DUCTILE IRON	DI
FIBRE REINFORCED CEMENT	FRC
GLASS REINFORCED EPOXY	GRE
GLASS REINFORCED PLASTIC	GRP
(UNPLASTICISED) POLYVINYL CHLORIDE	PVC
POLYETHYLENE	PE
STEEL	ST
CONCRETE SEGMENTS BOLTED	CSB
CONCRETE SEGMENTS UNBOLTED	CSU
GALVANISED IRON	GI
DUCTILE SLEEVED	DS
CONCRETE PRE-STRESSED	CPS
HIGH PERFORMANCE POLYETHYLENE	HPE
UNKNOWN	??



CABLE & WIRELESS
 Field Operations (South)
 Marlborough Road
 Churchhill Ind. Estate
 Lancing
 West Sussex BN15 8L
 Tel (01903) 528189
 Fax (01903) 528164
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- LEGEND**
- └ Sweep-Tree
 - Cabinet
 - ② Inspection Chamber & Type
 - Duct Line and Configuration
 - Block Made Body Line

Approximate cover of duct.



NOTE: The actual course and depth of the underground telecommunication apparatus are subject to deviations arising from unforeseen obstructions. Cable & Wireless Communications Ltd. is not responsible for the accuracy of this drawing.

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Title

Drawing Number

Drawn By

Date



APPENDIX 6

**RESPONSES FROM
REGULATORY AUTHORITIES**



Havant

BOROUGH COUNCIL

Environmental Health
& Housing Service
Civic Offices
HAVANT
Hampshire PO9 2AX

Head of Environmental Health & Housing
Malcolm Gunton BA MCIEH MIOA

Tel (023) 92 474174
Fax (023) 92 446659
DX 50005 Havant
www.havant.gov.uk

Our Ref: EH/CLW
Your Ref:

Ms E Barnes
PB Kennedy & Donkin Limited
Queen Victoria House
Redland Hill
Bristol
BS6 6US

Direct Line: (023) 9244 6669
Ask For: Miss Wahlberg

RECEIVED 23 SEP 2000

26 September 2000

Dear Ms Barnes

Environmental Protection Act 1990
re: 69 North Street, Emsworth, Hampshire

I refer to your recent enquiry regarding the possible contamination of the above site.

I would advise you that when it was proposed to produce a Register of potentially contaminated land a study of historical maps was undertaken to identify possible sites for further investigation. These were mainly old tips or sites that appeared to have been filled. This process was abandoned when the proposed legislation was shelved and as a consequence information we have is likely to be incomplete. Conversely the lack of any information cannot be construed as evidence that a site has not been contaminated

With regard to this particular site, I can advise you that there are no registered pollution incidents. However, the site has been identified as potentially contaminated.

If you have any queries, please do not hesitate to contact me on the telephone number quoted.

Yours sincerely,

Miss C Wahlberg
Senior Environmental Health Officer



INVESTOR IN PEOPLE

AL

Our Ref: PN01/HA/00/022
Your Ref: BENBL40102E/100.1



ENVIRONMENT
AGENCY

RECEIVED 14 NOV 01 09:10:28

Please quote our ref on **all** correspondence

13 November 2000

PB Kennedy & Donkin
Queen Victoria House
Redland Hill
Bristol
BS6 6US

Dear Sir/Madam

**REQUEST FOR ENVIRONMENTAL INFORMATION: Emsworth Gas Holder Site,
69 North Street, Emsworth.**

I refer to your request for information on the above site, received on 4 September 2000, and I apologise for the delay in replying. The information contained in this letter is supplied subject to the conditions on the enclosed notice, which you should read.

This site lies on the boundary of the Hampshire and Sussex Area offices, and this response incorporates information from both offices.

According to our records, compiled mainly under the provisions of the Control of Pollution Act 1974 and the Environmental Protection Act 1990, there is one former landfill sites within 1km of the outlined area. The location of this site is shown on the attached plan, and was licenced under licence number WD27/101

A search of our Abstraction Licence records indicates no such licences within the same distance of the property in question.

The only current Discharge Consents within 1km is D1028, consenting the discharge from the Gas Holder. All other consents within 1km are lapsed or revoked.

Any property in the vicinity of a watercourse could be at risk to flooding in certain conditions. However, the Agency does not have any records of flooding with respect to this particular property, although not all such events are reported to the Agency.

Searches of our Pollution Incidents records have resulted in the attached list from the Sussex area. With respect to the Hampshire Area, there have been 5 recorded substantiated incidents within this radius. All have been classed as minor.

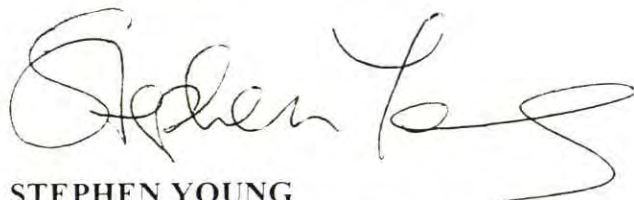
On 7 Feb 2000, red gas oil was reported on Southleigh Stream between Bath Road and Bridge Foot path. On 5 July 1999 a smell from the mill pond was investigated and determined to be decaying vegetable matter. Insulating oils were reported on Mill Pond on 24 March 1999. Sewage solids were reported in Slipper Pond, Emsworth on 15 August 1997 and a milky white substance was reported in the pond opposite the Royal Oak on 23 Jan 1997.

The River Ems is designated as 'main river' and under the jurisdiction of the Agency for the purposes of its Land Drainage functions. Therefore, the written Consent of the Agency is required prior to the carrying out of any works in, over or under the channel of the watercourse or on the banks within 8m of the top of the channel, under the Water Resources Act 1991 and relevant bylaws.

The replies given are based on the information available to the officers of the Agency at the present time, and the Agency accepts no liability in respect thereof in the absence of negligence.

I hope this satisfies your request.

Yours sincerely

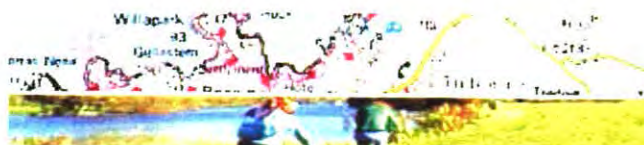
A handwritten signature in black ink, appearing to read 'Stephen Young', with a long horizontal flourish extending to the right.

STEPHEN YOUNG
Planning Liaison Officer (Searches)

Monday 21 January 2002



ENVIRONMENT
AGENCY

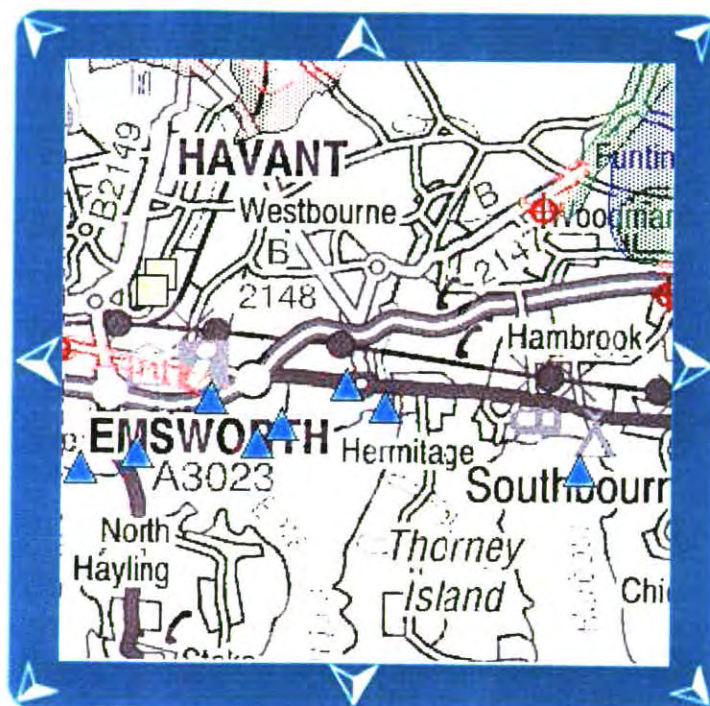


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Your environment



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Move to a
Point



What's that on
the map?

Select tool above, check
the Query Layer (next to
the Data Layers) and click
the map. More Help?

Scale: 1: 93750

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Query
Layer



Show
Layer

Data Layers

- ☒ **Pollution Inventory**
[Tell me more]
☐ Inventory Site
- ☒ **Bathing Waters**
[Tell me more]
☒ Excellent ☒ Good ☒ Poor ☒ No Class
- ☒ **River Quality**
[Tell me more]
☒ River Stretch
- ☒ **Agency Offices**
[Tell me more]
☒ Head Office ☒ Area Office
☒ Regional Office
- ☒ **Indicative Floodplain Maps**
[Tell me more]
- ☒ **Flood Warning Areas**
[Tell me more]
- ☒ **Source Protection Zones**
[Tell me more]
☒ Inner Zone ☒ Total Catchment
☒ Outer Zone ☒ Special Interest
- ☒ **Landfill Sites**
[Tell me more]
- ☒ **Discharges to Sea**
[Tell me more]



