



Public Register of Contaminated  
Land Sites

Environmental Protection Act  
1990: Part IIA

# Environmental Protection Act 1990: Part IIA: Public Register details

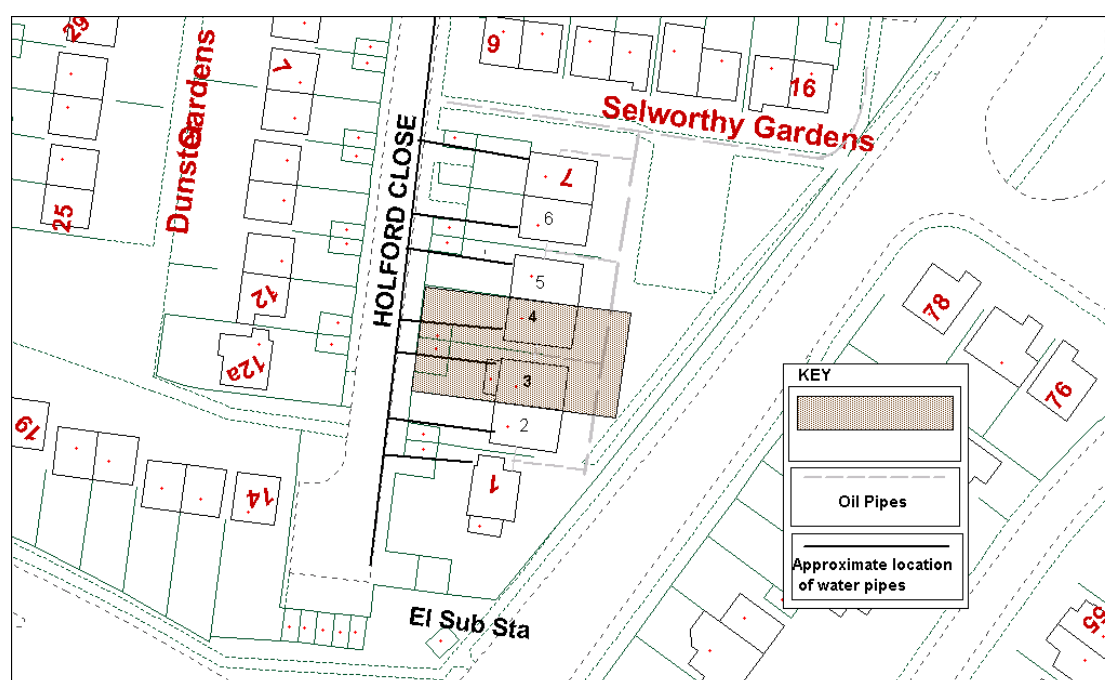
## Site information

**Location:** Land at 3 and 4 Selworthy Gardens, Nailsea, North  
Somerset

**Grid reference:** ST 471701

**Area:** 384 m<sup>2</sup>

## Plan:



**Current use:** Residential Property

## Description of Significant Pollutant Linkage:

**Source** Fuel oil leak – kerosene.

Between the 1960s and 1980s about 500 – 600 houses used kerosene as their main source of heating fuel. The fuel was supplied by Insection Ltd before the company was taken over in 1992 by Central Fuel Supplies. Fuel is fed to the houses via steel service pipes on a dead end dogleg system, which is served by a central kerosene tank in Ash Hayes Drive. Currently there are now only 32 properties on the same network implying that there is a mass of redundant pipes that could still contain substantial volumes of kerosene. North Somerset Council now has evidence

to support the suspicion that one of these pipes is leaking and has been for at least a period of four years.

Kerosene is a substance this office is very familiar with, see the attached CIRS (Chemical Incidence Response Service) factsheet for a chemical summary. Discussions with the CIRS have indicated that this is a serious health hazard and must be treated as such. In particular, ingestion has very serious health implications.

## **Pathway**

- Soil to water supply pipes.

This is a known pathway, particularly with plastic (unprotected) water supply pipes. The kerosene can penetrate the plastic pipe and thus contaminate the water. The water company have confirmed the black alkethene supply pipes to both properties run directly under the spill area. In addition, there is a potential for back syphonage which could affect other supplies. Bristol water's sampling results have found levels exceeding the acceptable limit for hydrocarbons in drinking water (10µg/l). No. 3 had 1.78 mg/l and No. 4 had 28 µg/l.

- Inhalation of fumes

Air quality samples taken in Nos. 3 and 4 all exceed the short term limit of 10 mg/m<sup>3</sup> in cases of exposure beyond one year (see accompanying results). The occupant of No. 3 has been experiencing fumes for a period of at least 3 years and it is not yet sure how long the residents at the other two properties have been exposed.

- Penetration of fumes

Kerosene fumes will penetrate the building structure, particularly within the foundations.

## **Receptors**

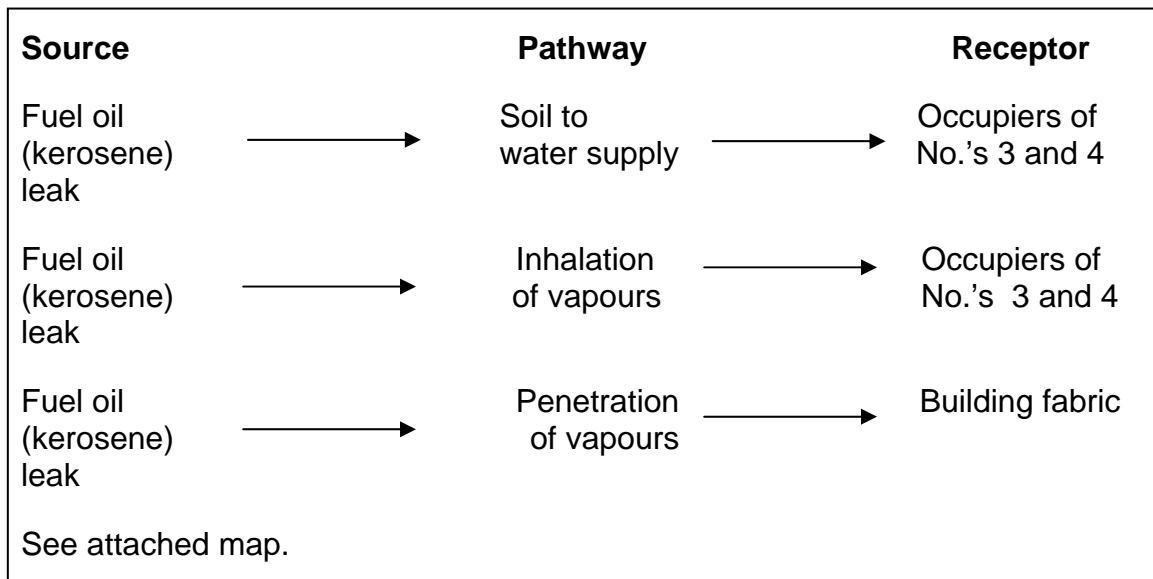
- Human beings

The occupants of No.'s 3 and 4 are elderly ladies and it is not known how long they have been exposed to kerosene both in the air and in the water supply. Chronic exposure to kerosene can lead to adverse health effects of a serious nature.

- Property in the form of buildings

In addition the buildings of No.'s 3 and 4 may not be capable of being used for the purpose for which it is intended.

### Conceptual model:



### Significant harm

Having identified the pollutant linkage, it can be seen there is a definite likely scenario whereby the contaminant could be ingested by the occupiers of No.'s 3 and 4. The harm that could be caused is severe; human systemic effects by ingestion have been identified as: somnolence, hallucinations, coughing, nausea, vomiting and fever.

The pollutant linkage is clear and there is a significant possibility of significant harm. Therefore, this spill has resulted in land which is contaminated under the definition of the new regime.

### Site specific guidance

**Date:** 10 November 2000  
**Reference:** 26/SEL/00 - 01

### Contamination investigation

**Date:** May 2001  
**Reference:** 26/SEL/01-02  
**Prepared by:** Integral Environment for and on behalf of Curtins Consulting Engineers.

### Remediation statement

**Date:** October 2002  
**Reference:** 26/SEL/02-03  
**Prepared by:** Curtins Consulting Engineers, signed by appropriate persons

## Remediation Statement – Revision A

**Date:** August 2003  
**Ref:** 26/SEL/02-03 (revised)  
**Prepared by:** Curtins Consulting Engineers, signed by appropriate persons

Validation report for works carried out between February 2003 and December 2004

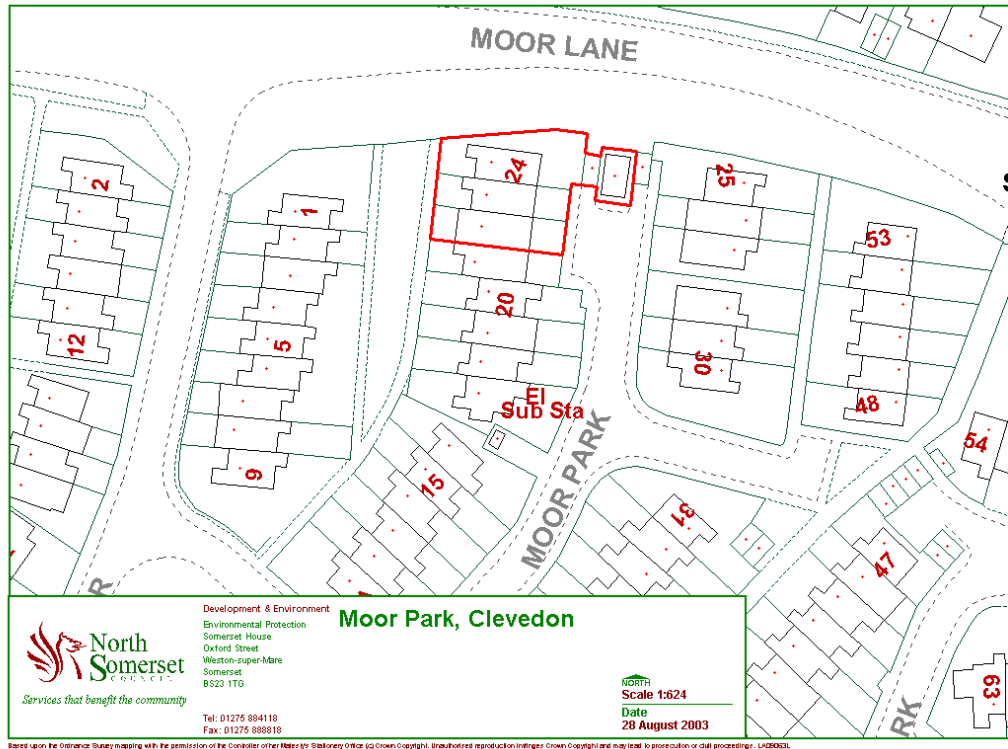
**Date:** March 2005  
**Ref:** 26/SEL//04-05  
**Prepared by:** Curtins Consulting Engineers

## Certificate of remediation

**Date:** 30 March 2005  
**Ref:** 26/SEL/ 04-05  
**Signed by** Curtins Consulting Engineers

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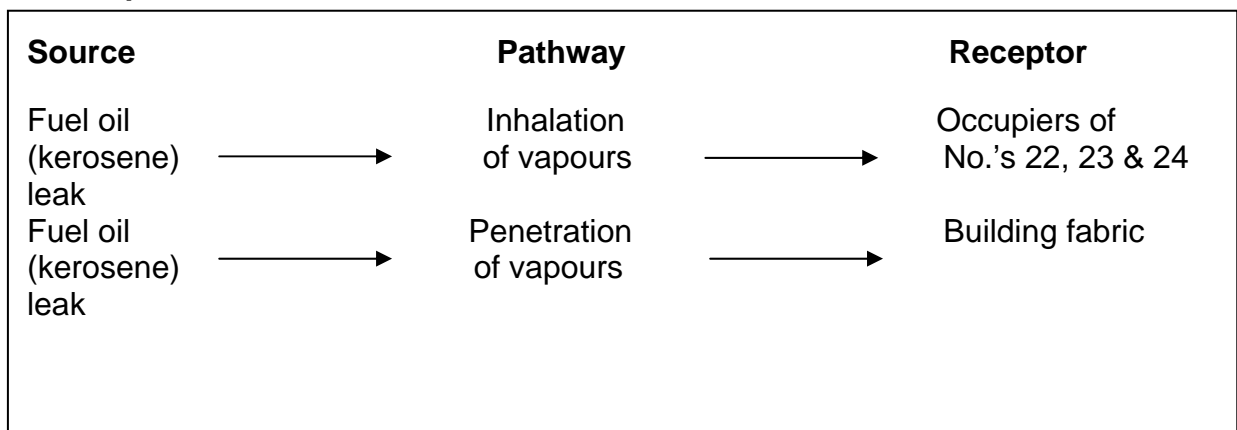
**Location:** Land at Moor Park, Clevedon, North Somerset  
**Grid Reference:** ST412708  
**Area:** 507 square meters



**Current use:** Residential

## Description of Significant Pollutant Linkage:

### Conceptual model:



**Source**

- Fuel oil leak – kerosene.

In the 1980s these houses used kerosene as their main source of heating fuel. Fuel is fed to the houses via steel service pipes on a dead end dogleg system, which is served by a central kerosene tank in Moor Park. Currently there are no properties on the same network implying that there is a mass of redundant pipes that could still contain substantial volumes of kerosene.

Discussions with the CIRS have indicated that this is a health hazard and must be treated as such.

**Pathway**

- Inhalation of fumes

Air quality samples taken in Nos. 22, 23 and 24 all exceed the limit prescribed by the CIRS of 1 mg/m<sup>3</sup>.

- Penetration of fumes

Kerosene fumes will penetrate the building structure, particularly within the foundations.

**Receptors**

- Human beings

The occupants of No.'s 22, 23 and 24

- Property in the form of buildings

The buildings of No's 22, 23 and 24 are not be capable of being used for the purpose for which it is intended.

**Significant harm**

Having identified the pollutant linkage, it can be seen there is a definite likely scenario whereby the contaminant could be inhaled by the occupiers of Nos. 22, 23 and 24. The harm that could be caused is severe; human systemic effects have been identified as somnolence, hallucinations, coughing, nausea, vomiting and fever.

Site specific guidance

**Date:** 12 June 2003

**Reference:** 13/MOO/03-04

## Contamination investigation

**Date:** 30 July 2003  
**Reference:** 13/MOO/03-04B  
**Prepared by:** Hydrock Consultants

## Remediation statement

**Date:** January 2004  
**Reference:** 13/M00/03-04C  
**Prepared by:** Hydrock Consultants Ltd