INTERNATIONAL
DAMAGE
MANAGEMENT

TEL: 01794 515848
FAX: 01794 524386

Email: enquiries@merryhill-idm.co.uk
Website: www.merryhill-idm.co.uk

Our Ref: J5758F/idh
Your Ref: RAJ/003105

9 April 2003

F.A.O. Mr R Johnston
Flintshire County Council
Mold
CH7 6NF

Dear Sir,

Re: Letter Ref: RAJ/003105, dated 7 March 2003 regarding the 'Environmental Protection Act' 1990, section 78B on contaminated land arising from a kerosene oil leak at 'Bilberry', Mold Road, Altami.

International Damage Management Ltd (IDM) were engaged by the house insurers on behalf of Mr Peter Cawley, owner of the property 'Bilberry' to remediate the contaminated land in the properties 'Bilberry', 'Glenroyd' and 'Northwood', another company has been engaged to deal with the contamination at the property 'Beechwood'.

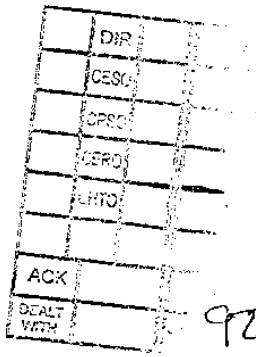
As we are the company that undertook to carry out the remediation on the above mentioned three properties we have been requested by Mr & Mrs Cawley to provide this Remediation Statement on their behalf as required under Section 78H of the above act.

As per item 6 in your letter re the Remediation Statement the following is the information you have asked us to provide.

Item 6.1 Names and addresses of companies involved and contact details.

Project Management Company

International Damage Management
Merryhill House
Budds Lane
Romsey
Hants
SO51 0HA
Telephone: 01794 515848
Contact: Janis Kreicbergs, Project Manager



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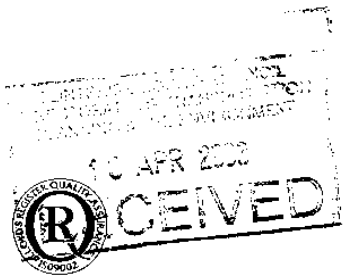


ARCA
An association of specialist contractors committed to the safe removal of asbestos and other hazardous materials

EARA

Merryhill House
Budds Lane
Romsey
Hampshire
SO51 OHA

INTERNATIONAL DAMAGE MANAGEMENT

Merryhill House
Budds Lane
Romsey, Hampshire S051 0HA
Tel: Romsey 01794 515848
Fax: Romsey 01794 524386

Remediation Statement

Environmental Protection Act 1990

Section 78H(7)

On 5 March 2003 Flintshire County Council identified the land detailed in Schedule One below (the land) as contaminated land under Section 78B(1) of the Environmental Protection Act 1990 (the 1990 Act).

Flintshire County Council (the Enforcing Authority) is precluded from serving a Remediation Notice in respect of the Land in accordance with Section 78H(5)(*b*) of the 1990 Act since the Enforcing Authority is satisfied that appropriate things are being or will be done without service of a notice.

This remediation Statement is therefore prepared under Section 78H(7) of the 1990 Act by International Damage Management (IDM) as the responsible person under Section 78H(8) of the 1990 Act in respect of the Land.

The actions which have been carried out by way of remediation and the periods within which they were carried out are set out in Schedule Two.

The name and address of the person has carried out the appropriate action is:

International Damage Management
Merryhill House
Budds Lane
Romsey
Hants SO51 0HA

Schedule One
See attached four pages under Impact Control Chemical Corporation

Schedule Two

Remediation Action	Completion Date
From 18 February 2003	18 March 2003

Dated: 9-4-03

International Damage Management
Merryhill House
Budds Lane
Romsey
Hants SO51 0HA

Item 6.2 Details supplied with previous correspondence from Alcontrol/IDM and tests carried out by Alcontrol/Flintshire County Council.

Item 6.3 Identification of all specific linkages which the remediation dealt with.

1. Locations of contamination generally lawns 'Bilberry' and 'Glenroyd'.
2. Shrub garden 'Northwood'.
3. Areas beneath concrete/patios.
4. Drains to the septic tank.
5. Septic tank.

Item 6.4 Details of Remediation Scheme and specification of the Remediation Method

1. The turf and a layer of soil taken out from the lawn of 'Bilberry' and all of the lawn from 'Glenroyd'.
2. The patios 'Bilberry', 'Glenroyd' and 'Northwood' taken up and concrete areas where necessary taken up and the areas beneath treated with 'Supazorb'®, (a bio-absorbant/bio-remediation agent).
3. 'Supazorb' mixed into the soil approximate 1 meter depth in the lawn areas of 'Bilberry' and 'Glenroyd' also 'Northwood' garden area.
4. The depth of contaminated soil removes was minimal as it was only soil taken out with the turf, the remainder of the contaminated soil was treated with 'Supazorb'

Foul drainage system & septic tank 'Bilberry', 'Glenroyd' and 'Northwood'

The foul drainage system has been chemically cleaned and decontaminated at all the properties. The septic tank after being emptied was also treated.

'Bilberry' Following the bio-remediation treatment of the soil in the lawn area at the request of Mr & Mrs Cawley the lawn was not re-turfed as the area involved is to be used as a driveway and parking for cars and caravans instead. The area was sheeted out with 'Teram' a semi-porous membrane, and then covered with hardcore ready to be re-surfaced with tarmac.

Item 6.4 The standard to which the contaminated land was remediated.

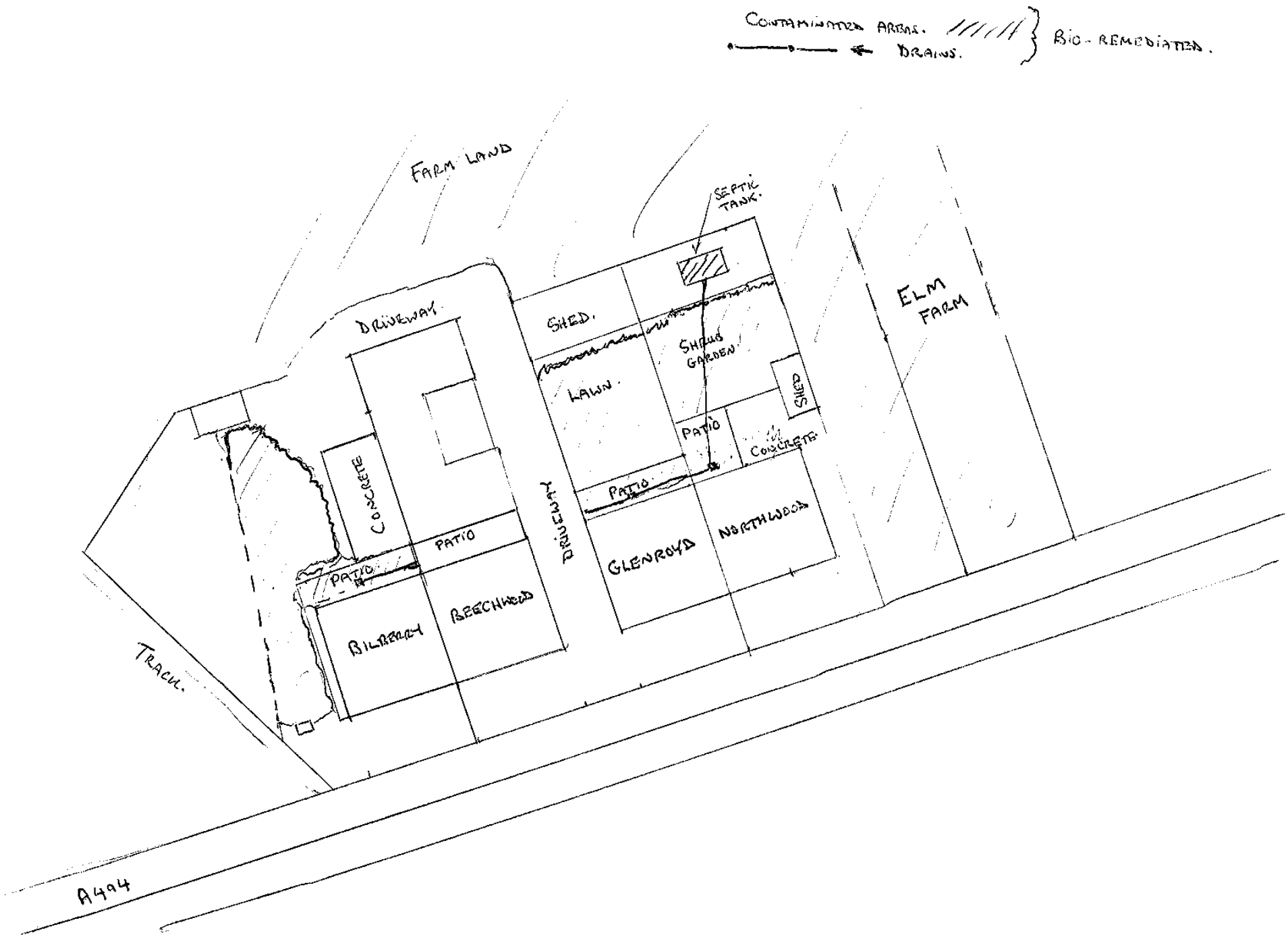
Using 'Supazorb' in accordance with the manufacturer's guidelines as per the following:-

Soil TPH levels of 1000 mg/km for the total petroleum hydrocarbons.

Item 6.5 Post-remediation Monitoring

To prove that the land has been adequately remediated to the relevant standard, sample analysis will take place approximately 10 weeks after the completion date.

Cont/....


CONTAMINATED AREAS.
DRAINS.
BIO-REMEDIATED.
FARM LAND
SEPTIC TANK.
DRIVEWAY
SHED.
SHRUB GARDEN
LAWN.
ELM FARM
SHED
PATIO
CONCRETE
CONCRETE
PATIO
PATIO
PATIO
DRIVEWAY
GLENROYD
NORTHWOOD
BILBERRY
BEECHWOOD
TRACK.
A494

Impact Chemical Corporation

Deiniesmuir House, Delnies, Nairn, Scotland. IV12 5NT
Tel: +44 (0) 1667 454501 Fax: +44 (0) 1667 454455 E-Mail: info@supazorb.com

ATTENTION:	Mr Janis Kreicbergs	**FAX NO:**	01794 524 386
TO:	IDM	**FROM:**	Nicholas Snow
DATE:	07.03.03		
NO OF PAGES:	4	(including cover page). If you do not receive all pages, please contact us immediately.	

Our ref SJ26NE28,

Janis,

Herewith a fax copy of a borehole log (our ref SJ26NE28) from the database we subscribe to. From the attached plan you can see that it is located just a few tens of metres to the south west of the 4 Altami properties in question. No geological discontinuities exist between the borehole and the residences and therefore it is suggested we can extrapolate the date to the contaminated land.

As we had anticipated underlying the made ground / topsoil is a considerable depth of clay. I would suggest that these 3 attachments be forwarded to Mr Johnston. If you have not already sent him your report I can suggest some improvements now that I have seen a copy on my desk. Indeed I left a message for you to call me at about 11.00 am.

Yours sincerely,

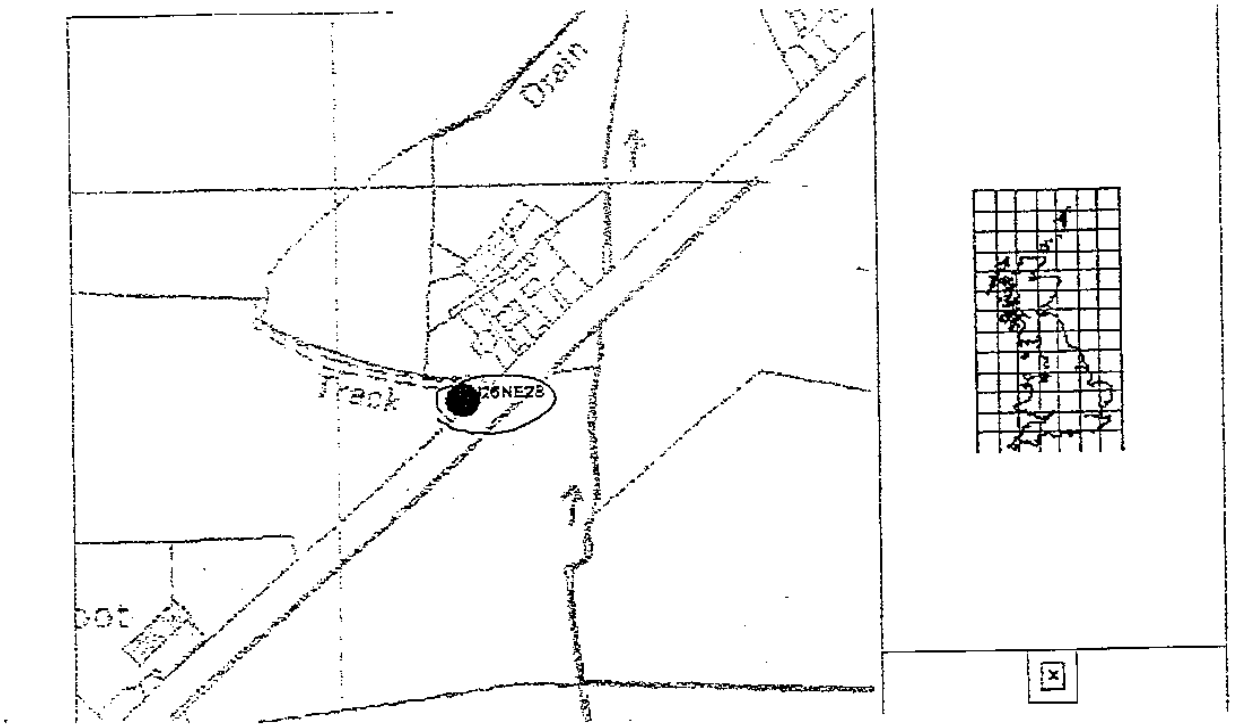
Nick Snow
ICC is a Division of C. J Petrow International Ltd: Co reg. 2862209

SupaZorb

INTERNATIONAL CLEAN UP

University of Pretoria

International Clean-Up Land Remediation & Pollution Clean Up Exhibition & Conference Innovation Award Winner 2002



ALTAMI SITE (ABOVE CENTRE) WITH BOREHOLE RECORD SJ26NE28 INDICATED

SJ 26 NE 28 2706 6589 Woodlands 1" no. 108

Surface level +115 m
Water not encountered
Shell and Auger, 203 mm diameter
October 1979

Waste 6.8 m
Bedrock 2.2 m+

LOG

Geological classification	Lithology	Thickness m	Depth m
	Made ground	0.4	0.4
Till	Clay, red-brown to 5.9 m, grey below; stones of mudstone, siltstone and sandstone	6.4	6.8
Coal Measures	Siltstone, pale grey	2.2+	9.0

BOREHOLE RECORD SHEET

Registration Number

6 in. quarter sheet: SJ26NE (6) | Accn. no.: 28 (10) | Suffix: (14)

Temp. No. 6

Borehole diam. 203 mm

Water struck Not Struck

Remarks: NGR 2706 6589

Classification	Thickness (m)	Lithology
WASTE	0-4	MADE GROUND
WASTE	6-4	CLAY
WASTE	1-7	WEATHERED SILTSTONE
BEDROCK	0-5	SILTSTONE

Lithostrat. Code	Description	Thick[D] (m)	Depth to base (m)	Sample No
MGR	Made ground: soil and rubble ground bricks clay etc	0-4	0-4	
	Clay: orangey brown with gleyed grey areas, laenda laminations of grey gleyed material, occasional pebbles of SA sandstone traces coal and other coal measures material - becoming dusky brown at 1-0 m, non calcareous, stiff to very stiff, slightly sandy, cobbles of sandstone at 2-1 m	1-7	2-1	
	Clay: Very stiff brown to reddish brown clay with SR/SA siltstone			

J&F BUILDERS LTD

Stamford House London Road Trelawnyd Flintshire LL18 5DN
Tel: 01745 570888 Fax: 01745 570991
24 HOUR RESPONSE SERVICE

Name: DEBBIE CAWLEY Mr/Mrs/Miss Initials: D

Address: BILBERRY 1 MOLD RD, ALLTAMI

Town: _____ County: _____ Post Code: CH7 6LG

Telephone Number: 01244 540140

Problem: _____

STATEMENT OF SATISFACTION

The above work has been carried out to my satisfaction:

Signature of Householder: D L Cawley Date: 22/2/02

(Please Print Householder Name:) D CAWLEY

Time of Departure of Tradesmen: 2.30 pm

COMMENTS

Quote
First
2.30
Gas

J&F BUILDERS LTD

Unit 1, Jacksonville Farm, Towyn Way West, Towyn, Abergele, LL22 9LG
Tel: 01745 360888 Fax: 01745 369222
24 HOUR RESPONSE SERVICE

Name: P. BERRY Mr/Mrs/Miss Initials: MR
Address: GLANROAD, MOLD RD, ALLTAFN
Town: NR MOLD County: FLINTSHIRE Post Code: CH7 6LG
Telephone Number: 01244 545816
Problem: OIL CONTAMINATION

STATEMENT OF SATISFACTION

The above work has been carried out to my satisfaction:
Signature of Householder: P. [signature] Date: 18/3/03
(Please Print Householder Name:) P. BERRY
Time of Departure of Tradesmen:

COMMENTS

VERY SATISFACTORY JOB - CONTRACTOR
VERY HELPFUL WITH GOOD FINISH

J&F BUILDERS LTD

Unit 1, Jacksonville Farm, Towyn Way West, Towyn, Abergele, LL22 9LG
Tel: 01745 360888 Fax: 01745 369222
24 HOUR RESPONSE SERVICE

Name: Janet & Hobbing Mr/Mrs/Miss Initials: J+B

Address: Northwood Mold Road Alltami

Town: Mold County: Flintshire Post Code: CH7 6LG

Telephone Number: 07939 337 166

Problem:

CONTAMINATED GROUND (Kerosine)

STATEMENT OF SATISFACTION

The above work has been carried out to my satisfaction:

Signature of Householder: J Hobbing Date: 18-3-03

(Please Print Householder Name): J B Hobbing

Time of Departure of Tradesmen:

COMMENTS

Good friendly firm - excellent work
job efficiently & tidy on time given.

INTERNATIONAL
DAMAGE

INTERNATIONAL
DAMAGE MANAGEMENT

Merryhill House
Budds Lane,
Romsey,
Hampshire.
SO51 OHA

Tel: 01794 515 848
Fax: 01794 524 386

TELEFAX

To: FLINTSHIRE COUNTY COUNCIL
For the attention of: ROBERT JOHNSON
Telefax No: 01352 - 703441
From: JANIS KREICBERGS
Date: 7 - 1 - 03
No. of pages to follow: 16.

ROBERT.

Re:- PROPERTIES - ALTAMI - MOLD.

Sorry about the delay.
Reports and 'SUPAZORB' product details.

Regards
Janis

07775 (M) Janis.
506703

PROJECT NUMBER 03/01092/02/01

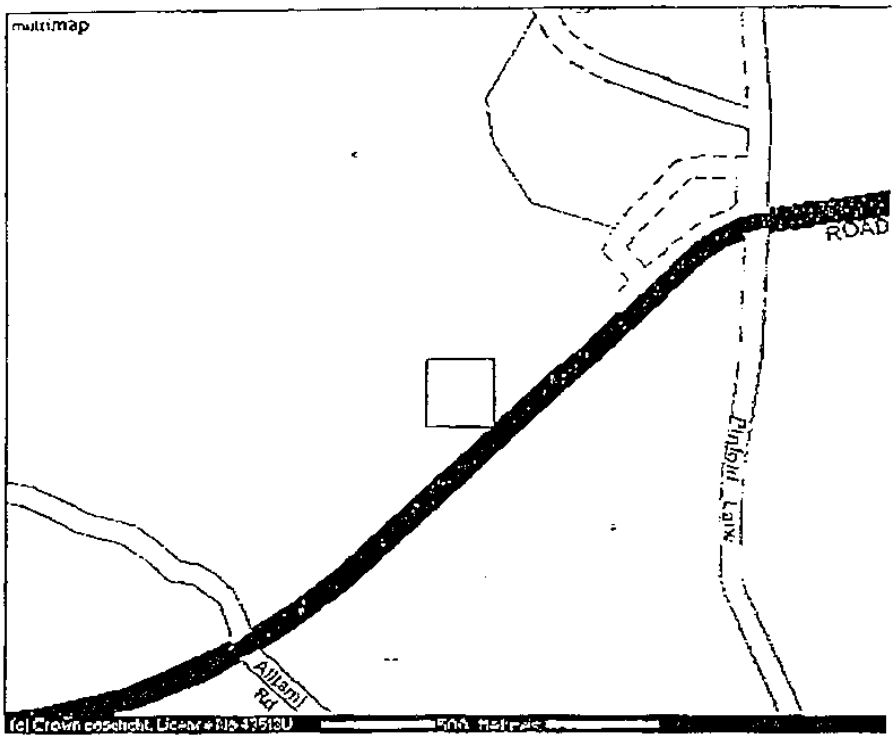
FOR MERRYHILL – IDM: ATT; MR JANIS KREICBERGS

ANALYSIS SUPPLIED BY ALCONTROL GEOCHEM LABORATORIES

THIS REPORT COMPRISES:

I) This report overview and PID analytical results
II) Small scale plan and larger scale site plan
III) Soil sample results validated by Alcontrol Geochem Analytical Services
IV) Profile of TPH screening of the 4 soil samples illustrating that contamination is in the Carbon-8 to Carbon-16 range i.e. typical of heating oil fuels. (these profiles have been commissioned by ICC under preferred status contract BH1980).

LARGE SCALE PLAN OF CONTAMINATED LOCATION AT ALLTAMI, MOLD
PLAN NOT TO SCALE



ON SITE SAMPLING ALLTAMI

Scope

Sampling of the ground at the site was carried out to determine whether there has been contamination of this medium as a result of a spillage from an above ground diesel storage tank. The samples of the ground were retrieved from two residential properties in Alltami, Near Mold, North Wales.

Sampling Procedure / Collection

The sampling was itself carried out by staff from Alcontrol Geochem. Sampling was targeted / judgmental concentrating around the area of spillage from the diesel storage tank. In this situation, the location of the sampling points, the distance between each sampling location and the centre of the targeted contamination (the diesel storage tank), was influenced by the realistic likely spread of contamination. Sampling points were located at equal spacing and increasing distance from the centre having regard to the possible migration of the contamination and any features likely to channel such movement.

During the sampling consideration was given not to contaminate the samples or to allow contaminants to escape (e.g. from sample containers) and to avoid cross contamination. Extensive guidance exists about sampling soils (e.g. BS 10175:2001 Section 8.3; BSI/ISO 1995a; ISO 1996a). Surface soil samples were taken using a stainless steel trowel. The trowel was washed down with ultra pure water / decon 90 before taking each sample to avoid cross contamination. Samples were collected in 1kg amber jars and 60g volatile vials. All sample containers were filled to capacity to minimise the volume of air.

Sample Storage and Preservation

All sampling containers were clearly labelled with the sample reference, the location number, the depth and the date of sampling. A chain of custody form was completed detailing the aforementioned information and also suites for analysis i.e. a total hydrocarbon screen by EZ Flash (C4-C40). Insulated containers specifically designed for transport of soil samples were used.

Hazard Assessment

Our staff adhered to general Health and Safety Procedures.
Staff wore the appropriate personal protective equipment designated for a potentially contaminated site. In this case these included:
Hand Protection
Overalls
Waterproofs
Industrial Boots/Wellington boots with sole and toe protectors

PID readings were taken at 1 metre and 3 metre intervals from the existing diesel storage container in a northerly direction at surface and 0.5 metre depths.
At North, East, South and Westerly directions from the centre of the former location of the diesel storage tank also at surface and 0.5 metre depths.
Ambient readings of atmosphere from inside "Beechwood" and underneath the floor boards where the diesel odours were perceived to be strongest.

1 metre North of Existing Storage Tank	
Depth	PID readings (ppm).
Surface	4.9
50cm below ground level	0.8

3 metres North of Existing Storage Tank	
Depth	PID readings (ppm).
Surface	0.1
50cm below ground level	<0.1

1 metre North of the former location of the Diesel Storage Tank	
Depth	PID readings (ppm).
Surface	6.9
50cm below ground level	4.6

1 metre East of the former location of the Diesel Storage Tank	
Depth	PID readings (ppm).
Surface	5.3
50cm below ground level	2.1

1 metre South of the former location of the Diesel Storage Tank	
Depth	PID readings (ppm).
Surface	21.3
50cm below ground level	11.1

1 metre West of the former location of the Diesel Storage Tank	
Depth	PID readings (ppm).
Surface	6.4
50cm below ground level	4.9

Ambient Reading from the living room of Beechwood PID Reading (ppm) 11.3

Reading from confined space beneath the floor boards of Beechwood PID Reading (ppm) 61.3

Additional Information

Weather Conditions:

Cloudy, intermittent heavy rainfall/sleet showers, wet to damp underfoot.

Wind:

Strong North to North Westerly gale

Calibration of PID

Standard	<0.1	100
Observed	<0.1	100

Recommendations

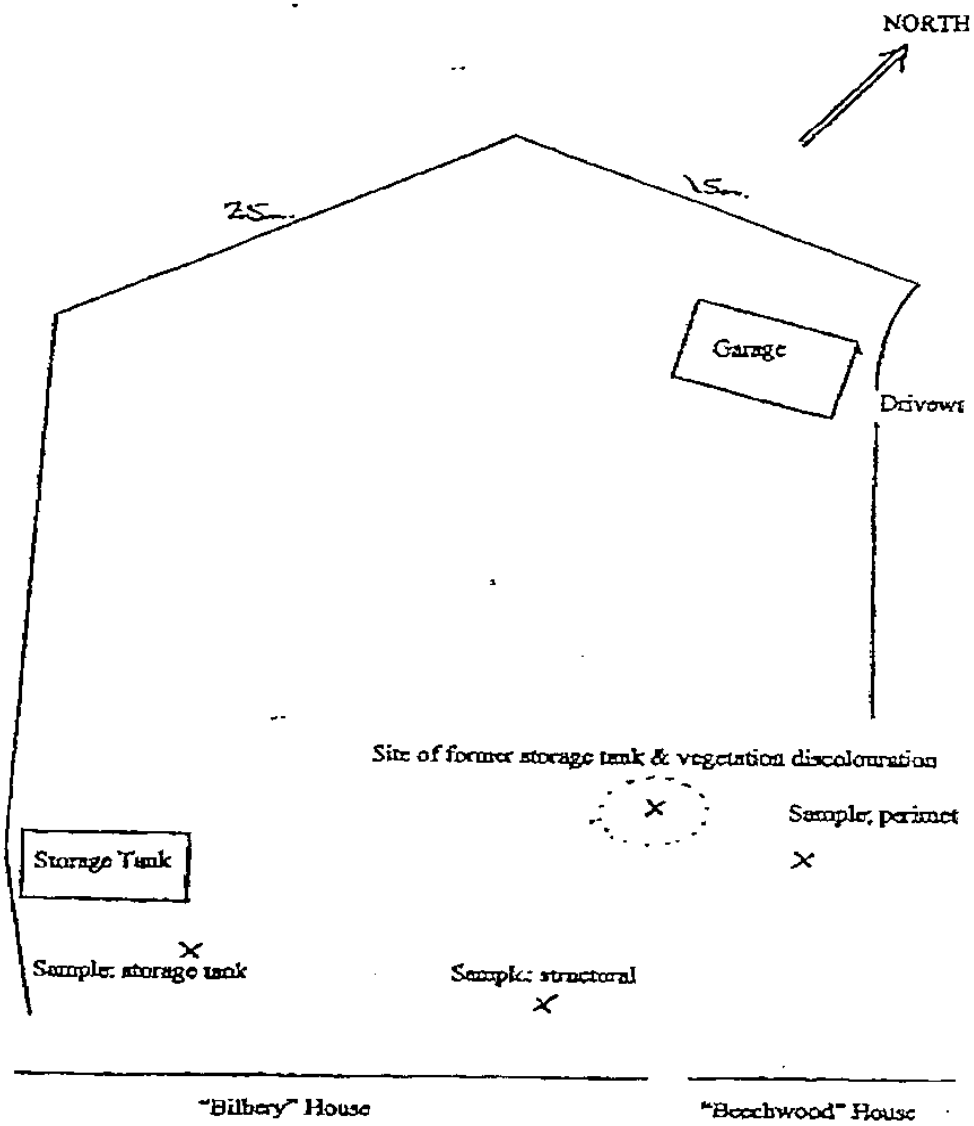
The results from this soil sampling exercise should be treated as preliminary and should be used as a pre-cursor to a more detailed multi-stage investigation.

The main objectives of such a multi-stage investigation should be:

- to fully determine the nature and extent of diesel contamination present
- to characterise the host media i.e. the pathways
- to understand the nature of the potential receptors and the relationship between the source and the effects (risks)
- and to design an appropriate remediation strategy.

It should be noted that from examination of OS plans of the area it is apparent that there is a risk of watercourse contamination to a tributary of the River Dee. Prompt remedial action is highly recommended.

SOIL SAMPLING LOCATIONS AT ALLTAMI, MOLD
PLAN NOT TO SCALE



ALCONTROL/GEOCHEM ANALYTICAL SERVICES

Geochem Diesel Range Organics
by
G.C.FID(G00633),EZFLASH (G01128)

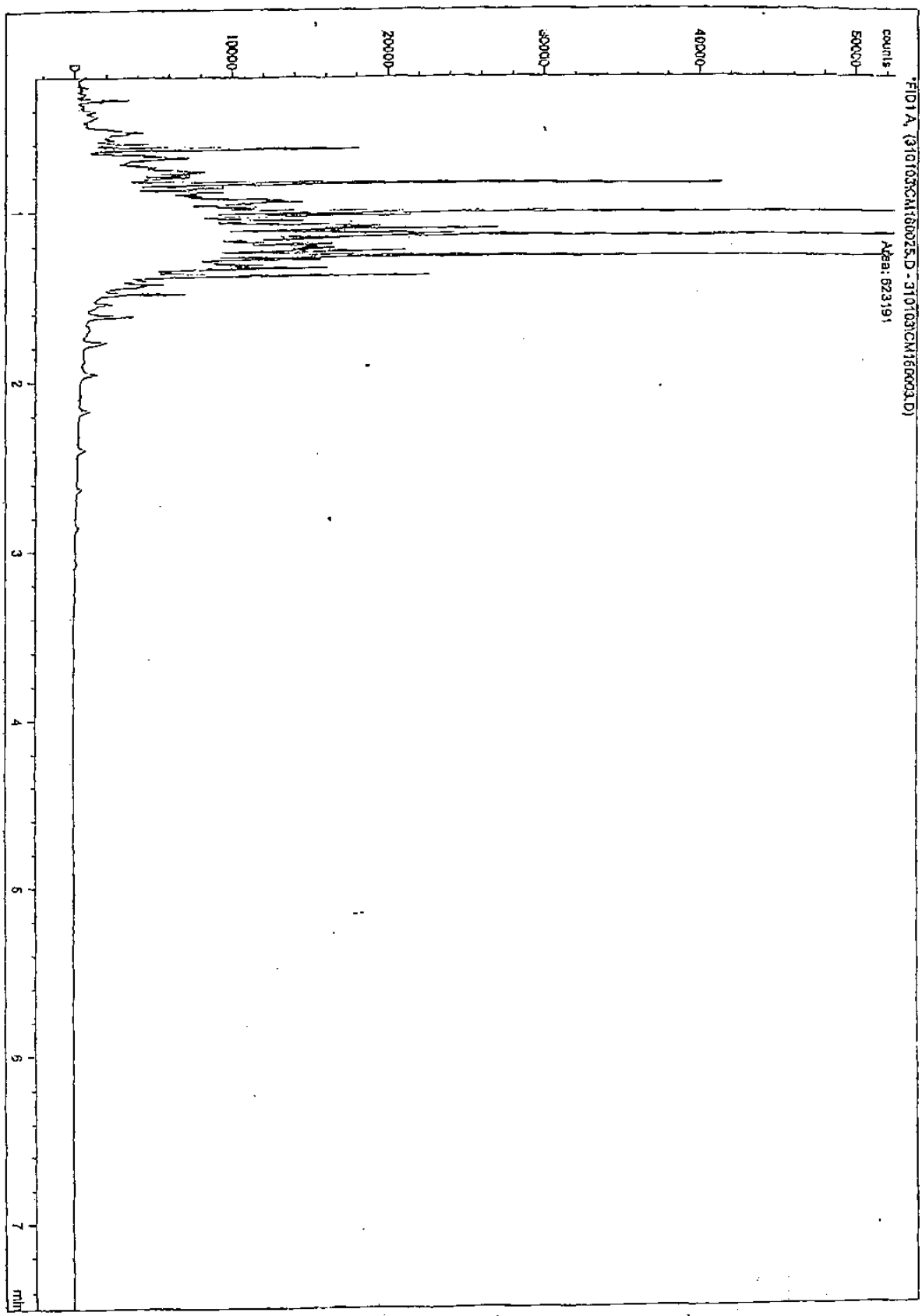
Job No:= 03/1092/02/01

Client Ref:= Altami
Contact= Not Specified

Sample Matrix= Soil
Location:= Not Specified
Sample Received:= ########
Date Analysed:= ########

Sample number	Sample Identity	Depth (m)	DRO (mg/kg)
001	Beechwood Sample	-	5844
003	Perimeter Sample	-	1230
005	Structural Sample	-	2028
007	Storage Tank	-	1885

Data File C:\HPCHEM\1\DATA\310103\CM160025.D Sample Name: 1092-001



DRO Soils 03/02/03 08:50:43

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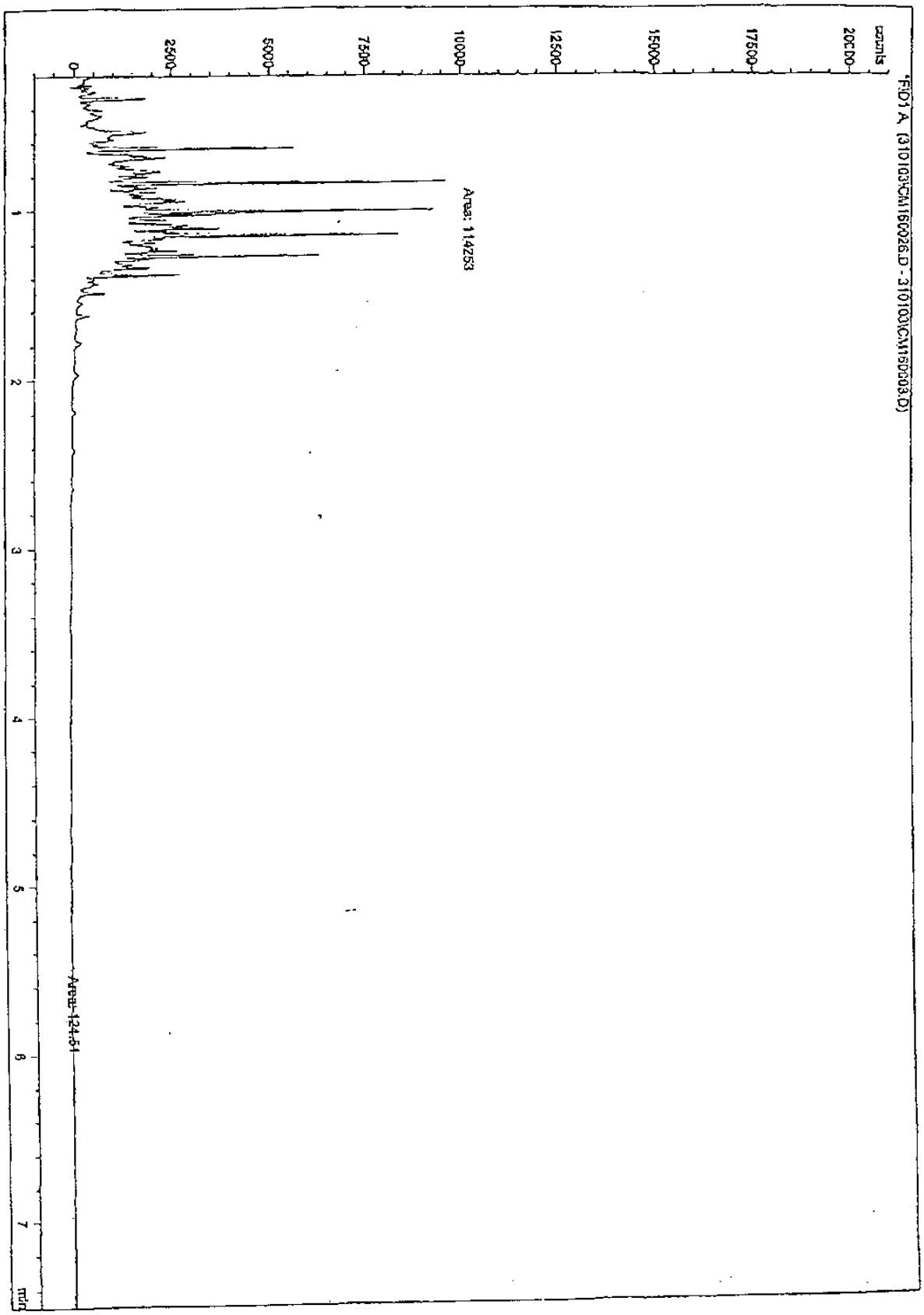
Data File C:\HPCHEM\1\DATA\310103\CM160026.D Sample Name: 1092-003



DRO Soils 03/02/03 08:51:24

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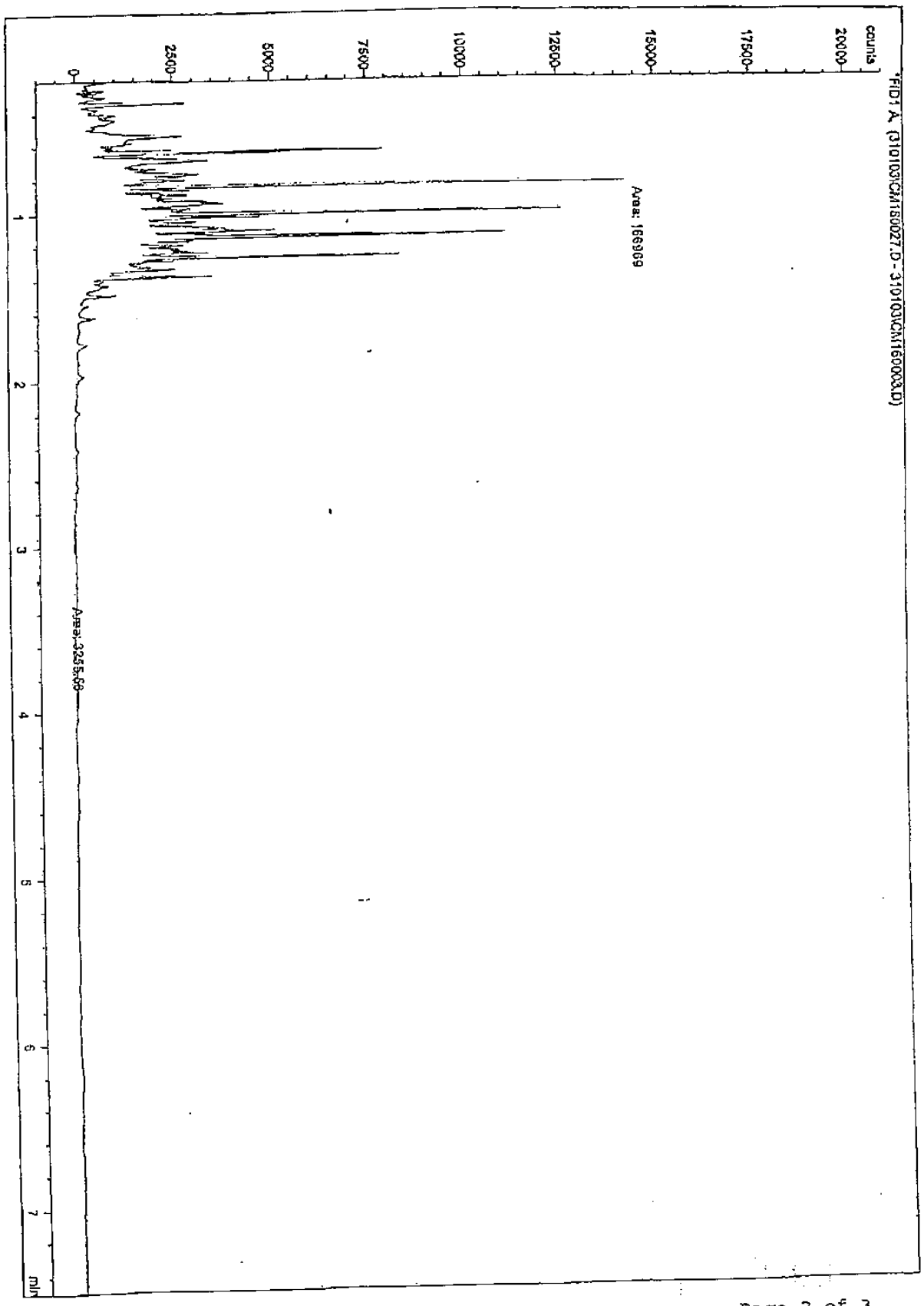
Data File C:\HPCHEM\1\DATA\310103\CM160027.D Sample Name: 1092-005



DRO Soils 03/02/03 08:52:25

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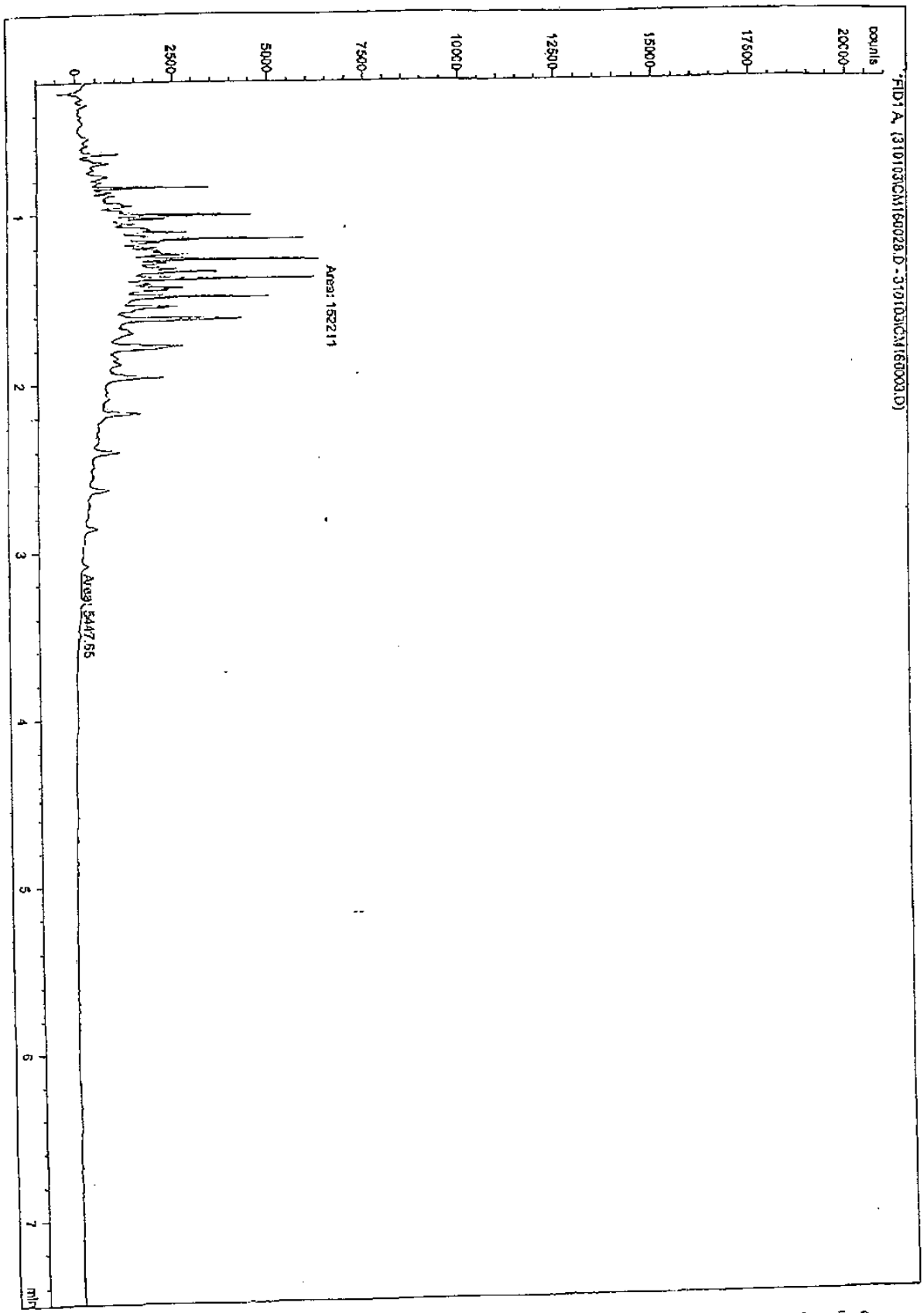
Data File C:\HPCHEM\1\DATA\310103\CM160028.D Sample Name: 1092-007



DRO Soils 03/02/03 08:53:01

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i M
INTERNATIONAL
DAMAGE
MANAGEMENT

&

SupaZorb
Waste Clean-up Management

Pollution Encapsulation & Bio-Remediation

Uses

To clean up a range of oil, petrol, pesticides, heavy metal and some chemical spills.

Advantages

- Sorbent properties comparable to peat.
- Environmentally friendly, non-toxic – does not add to the non-biodegradable waste stream – since it will decompose rapidly.
- Fungi and bacteria contained within 'Supazorb' makes the product greener and a cheaper alternative to other treatment methods including excavation and disposal.

Acclaim

- Current market leader.
- Winner of Innovation Award 2002 at the International Clean-up Exhibition G. Mex, Manchester. The judging panel was headed by Prof. Jim Lynch from the University of Surrey. The panels' decision was unanimous and the award was presented by the Lord Mayor of Manchester.

University of Pretoria

Pretoria 0002 Republic of South Africa
http://www.up.ac.za

Department of Microbiology
and Plant Pathology

Westmead 3610
Kwa-Zulu Natal
South Africa

Report: Composition of the Supazorb bioremediation product.

Dear Sir,

As requested we have looked at the composition of the Supazorb product and found it to contain 100% natural products, specifically a blend of plant materials and microbial organisms.

Moreover it is evident that organisms found in the Supazorb product are capable of ultimately biodegrading the product itself. Hence it would seem that the product could not be considered as necessarily adding to the anthropogenic waste stream.

All of the organisms present have been found to occur naturally in the wider environment. There are no known (or suspected) associated health risks.

The collection method of material used in the production of Supazorb has been warranted to be environmentally sustainable per the standards of the South African Department of Water Affairs and Forestry. It is also noted in the permit of collection issued by this body that there is considered to be ecological benefits to the harvesting of the forest material by virtue of a reduction of fire risk and encouragement of wild flower occurrence.

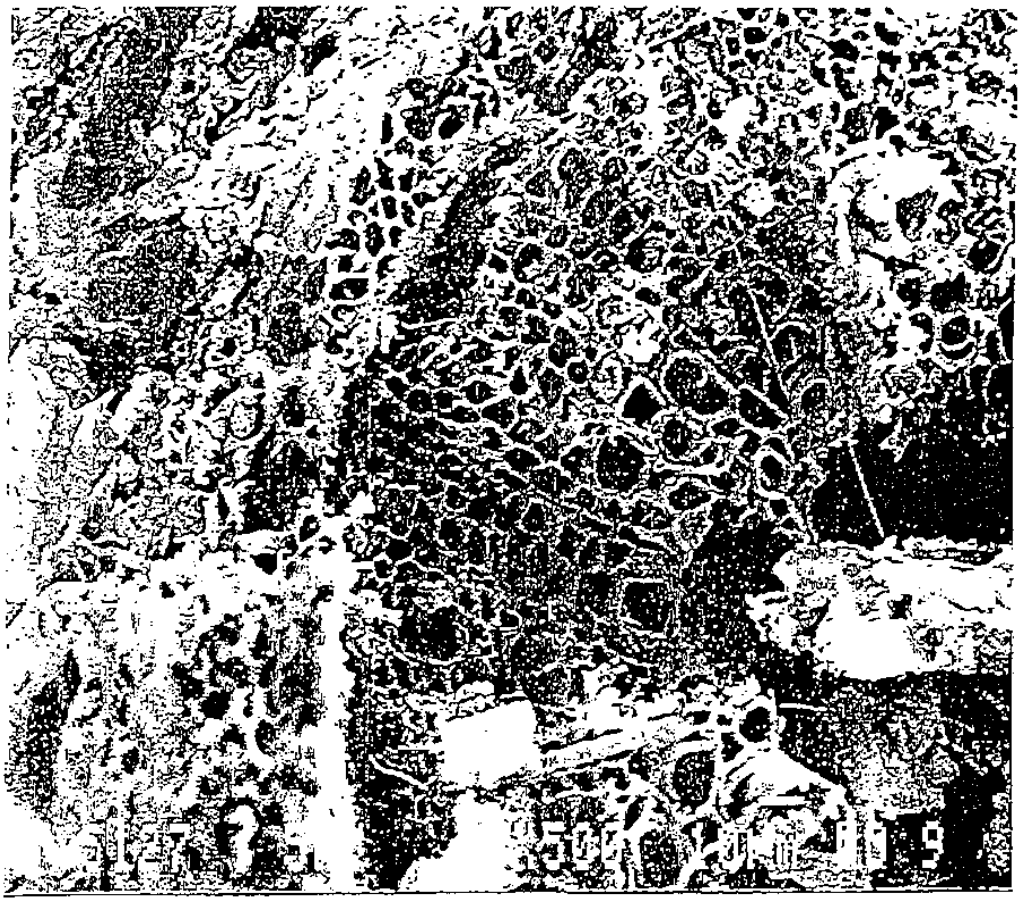
Faithfully,

Chris Cooper

Department of Biological and Agricultural Sciences

University of Pretoria

Pretoria 0002



Electron microscope image of a cross section of Supazorb showing microscopic capillaries that is typical of the structure of plant types from which Supazorb is comprised.

These capillaries serve to both encapsulate and retain contaminants in intimate proximity to fungal and bacterial species. Moreover the overall structure of Supazorb lends itself to be a moisture regulator.

Photo courtesy of University of Pretoria

INTERNATIONAL
DAMAGE MANAGEMENT

Merryhill House
Budds Lane,
Romsey,
Hampshire.
SO51 OHA

Tel: 01794 515 848
Fax: 01794 524 386

TELEFAX

To: FLINTSHIRE COUNTY COUNCIL
For the attention of: ROBERT JOHNSON
Telefax No: 01352 - 703441
From: JANIS KREICBERGS
Date: 7 - 2 - 03
No. of pages to follow: 16.

ROBERT.

Re:- PROPERTIES - ALTAMI ROAD.

Sorry about the delay.
Reports and 'SUPAZORB' product details.

Regards
Janis

07775 (M) Janis.
506705

'Northwood'
Report 28.08.03, 1no soil sample and 2no PIA samples.

Garden
Analytical results of the soil sample taken the readings indicated that the hydrocarbon concentration was less than the detectable limit which is used by Alcontrol Geochem, therefore no contamination remains.

Cess pit and drain manhole
The PID readings taken indicated that hydrocarbons are less than the detectable limit used by Alcontrol Geochem.

'Glenroyd'
Report 10.09.03, 2no soil samples.

One of the soil samples taken the readings indicated that the concentration of hydrocarbon is less than the detectable limit used by Alcontrol Geochem. The other sample is a low level of hydrocarbons @ 58 mg/kg.

Item 6.4 – Effectiveness of 'Supazorb'

In our letter we did state that 1,000 mg/km, apologies for this it should have read 1,000 mg/kg.

Regarding your question on whether or not 'Supazorb' is effective in dealing with higher levels. 'Supazorb' is effective in all case, the manufacturer of 'Supazorb' express a guarantee to reach targets to satisfy all parties concerned. The amount of 'Supazorb' used is dependant on the soil analysis before excavation and PID readings during excavation. Also Nick Snow from Impact Chemical Corporation, Technical Manager of UK, is regularly used by us for consultation.

The amount used at Altami varied in all three properties, depending on the PID readings taken during excavation, by taking these readings gave us an indication where to focus our efforts. Certain areas were excluded from remediation treatment because PID readings taken indicated that they were clear, therefore did not need treatment, other areas needed varying amounts of treatment. Where 'Supazorb' was used it was mixed into average depth of soil of 1metre using either 1 or 2 40 litre bags of 'Supazorb' to $1m^2$

Soil – lawns and patios

A very little amount of soil was removed; this was during the excavation of patios and lawns. Therefore it was not necessary to replace any soil with new clean soil.

'Bilberry'

Approximately half of the lawn was removed and the soil treated with 'Supazorb'. At the request of the home owners gravel was put down as base from the area which is to be re-surfaced in the near future. Part of the patio was also removed ready for renovation.

'Glenroyd'

The lawn and patio was completely removed. 'Supazorb' treatment was carried out throughout. The patio was then re-newed. At the request of the owners the lawn was replaced with gravel and pebbles.

Cont/....

'Northwood'

The plants were taken up and the soil was treated with 'Supazorb'.

The concrete patio was excavated.

On completion the plants were replanted and Teram sheeting laid over the treated soil with pebbles on top of the Teram.

Note - the plants suffered no ill effects.

Finally the concrete patio was renewed.

Teram this was put down in the garden areas of all three properties. This was requested by the home owners to prevent weeds coming up from the soil. It was not laid down for any other function whatsoever. The Teram was laid on the soil mixed with 'Supazorb' but was not compacted.

Note – as we discussed laying Teram sheeting is widely used prior to putting down gravel, tarmac and planting shrubs etc.

Drains and septic tanks

Drains

A bio-degradable liquid cleaner used to clean out the drains was mixed with water in accordance within manufacturers guidelines. The drain outlet was capped and finally flushed through with water; this included the drain belonging to the 'Beechwood' property.

Septic tank

The septic tank had recently been emptied prior to our treatment with 'Supazorb'. As 'Supazorb' is a 'natural bio-degradable material' it did not need to be removed separately from the next visit done by the septic tank emptying company.

Note – enclosed are manufacturers of the product used in the drains.

Item 6.3 Reference your Table 5

Details of significant pollutant leakages affecting the land.

In the properties Bilberry, Glenroyd and Northwood the risk of any harm from the source pollutant has now been extinguished by remediation. This was validated in the analytical reports from Alcontrol Geochem.

Cont/....

I do hope that I have answered all your questions and that this case can now be closed, but should you require any further information or clarification please do not hesitate to contact me immediately.

Yours faithfully,
for and on behalf of
International Damage Management Limited

Janis Kreicbergs
Operations Manager

OIL CLEANING BIO-PRODUCTS LTD.

HEGOL

PRODUCT SAFETY DATA SHEET

Issue no. 3 Date: 6.8.99

I SUPPLIER:
Oil Cleaning Bio-Products Ltd., PO Box 46, Royston, Herts. SG8 9PD, United Kingdom, tel. (44) (0)1763 287749

II COMPOSITION OF AND INFORMATION ON INGREDIENTS
Generic description: Liquid and bacterial cleanser, degreaser and bioremediation agent.
Composition: Proprietary blend of liquids including fatty acid (CAS 061790-12-3), Urea (CAS 57-13-6) sulphonic acid (CAS 27176-87-0), anti-foam agent (CAS 84133-50-6), water and non-pathogenic bacteria.

III HAZARDS IDENTIFICATION
This product is not considered dangerous for supply within the meaning of Regulation 5 of the Chemical Hazards (Information and Packaging) Regulations 1993 ("CHIP"). The information in this PSDS is supplied according to Schedule 6 of CHIP to meet the requirements of Section 6(4) of the Health and Safety at Work Act 1974.

US Dept. of Transportation classifications:

Hazardous: No	DOT label: not required	Corrosive: No
Oxidiser: No	Toxic: No	Flammable: No
UN Number: Not required	Shipping class: 55	

HMIS Hazard Ratings:

Health - 1	Flammability - 0
Reactivity - 0	Specific hazard - None
OSHA regulated - No	CARCINOGENICITY NTP: None

IV FIRST AID MEASURES AGAINST OVER-EXPOSURE

1) EYES or SKIN: No evidence of adverse effects. Flush or wash with water if necessary.
2) INGESTION: No evidence of adverse effects. Drink plenty of water. Do not induce vomiting.
3) INHALATION: No evidence of adverse effects.

V FIRE AND EXPLOSION DATA AND FIRE-FIGHTING MEASURES:

N/A, since NOT FLAMMABLE
Flammable limits: LEL: N/A; UEL: N/A.

VI ACCIDENTAL RELEASE MEASURES

Small spillages may be brushed to the foul drains. Larger amounts should be soaked up with absorbent, placed in a waste disposal container and disposed of in accordance with relevant regulations. After spillage on floor, beware of slippery surface.

VII STORAGE AND HANDLING OF PRODUCT

STORAGE: Keep in a cool dry place out of direct sunlight. Storage temperatures above 40°C. may damage bacteria. Temperatures below 0°C. will increase viscosity of liquid and cause handling problems.
HANDLING: Use common sense and normal industrial hygiene standards when handling Hegol. Do not mix or use it other than according to instructions. Those with hyper-sensitive skin should wear protective gloves and wash hands after use. Those spraying Hegol in windy conditions should wear ordinary safety glasses. Otherwise no special precautions or clothing required.

VIII EXPOSURE CONTROLS/PERSONAL PROTECTION:

See guidance in Sections IV and VII above

IX PHYSICAL AND CHEMICAL PROPERTIES

Form: Slightly viscous liquid	Colour: Amber	Odour: Pleasant
Flammability: None	Oxidising properties: None	Solubility in water, by weight: 100%
Volatility by volume: <5%	Specific Gravity 1.01	pH: 7 - 8

X STABILITY AND REACTIVITY

Stability: stable	Incompatibility: Oxidising acids	Hazardous polymerisation: Will not occur.
Hazardous decomposition products: Oxides of Nitrogen or Carbon		

XI TOXICOLOGICAL INFORMATION:

N/A. Hegol is a non-toxic product.

XII ECOLOGICAL INFORMATION:
Hegol is biodegradable and environmentally benign. The bacteria used are naturally occurring and non-hazardous. They are not genetically modified or mutagenic. If released into the environment the bacteria will die and degrade unless they come into contact with organic material on which they can feed.

XIII DISPOSAL CONSIDERATIONS:
Hegol is non-toxic and biodegradable and, subject to local conditions, it may be safely disposed of to the foul drains. Hegol which has been used to biodegrade hydrocarbons and other organic wastes will, unless kept until complete biodegradation has occurred, contain quantities of the original hydrocarbons etc. and should therefore be disposed of in accordance with relevant regulations and consents applicable to the site in question.

XIV TRANSPORT INFORMATION: No special precautions other than those concerning storage shown in Section VII.

XV REGULATORY INFORMATION: None of the components of Hegol is notifiable under the Notification of New and Existing Substances Regulations 1993. The product must be used in accordance with all relevant laws, regulations and specific consents governing its use and the disposal of the particular hydrocarbons at the site in question, and in accordance with guidelines prepared by the user under the COSHH Regulations and the provisions applicable to the user under the Health and Safety at Work Act and other relevant legislation. The information in this PSDS does not constitute the user's own assessment of workplace risks required by law. Any product use which is not in accordance with this Data Sheet or which involves using or mixing the product other than indicated is the sole responsibility of the user. While every effort is made to ensure the accuracy and validity of statements and assessments herein, OCBP cannot accept responsibility for any errors or omissions.

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Oil Cleaning Bio-Products Ltd - PO Box 46 - Royston - Hertfordshire - SG8 9PD - United Kingdom
tel (+44) 01763 287 749 fax (+44) 01763 287 749
email info@ocbp.co.uk

OIL CLEANING BIO-PRODUCTS LTD.

HEGOL

MULTI-PURPOSE OIL-REMOVAL & BIOREMEDIATION

- *Highly effective oil-removal*
- *Economical; versatile*
- *Non-toxic; safe; biodegradable*
- *Reduces environmental impacts*
- *Bioremediates oil etc.*
- *Cuts VOCs; solvent-free*
- *Non-corrosive*
- *Non-flammable*

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Hegol is a safe substitute for harsh solvents, caustics and citrus. It contains concentrated biodegradable oil-removing surfactants, nutrients and harmless natural bacteria which are premixed in the liquid. The surfactants remove hydrocarbons and other organic chemicals from soiled metallic, concrete or other hard surfaces and in the right conditions the bacteria feed on them and bio-degrade them into harmless by-products of water and CO_2.

BENEFITS

- A powerful liquid non-ionic surfactant, with none of the disadvantages of harsh solvents
- High dilution ratios ensure economy of use; No cumbersome precautions necessary
- Can biodegrade oil, rather than merely move contamination from one point to another
- Penetrates deep into oil-stained concrete; Fire retardant; Dispersant

- Will not damage paintwork e.g. of vehicle livery; Rust inhibiting if film of Hegol left on metal.
- Can be used in pressure jets at up to 43°C. and 700 psi
- Meets criteria in US Presidential Order 13101 guiding US Federal Agencies in granting of preference to the purchase of products which impose fewer burdens on the environment
- Certified by the California South Coast Air Quality Management District as a clean air product.
- Meets US Food Safety & Inspection Service Standards under 9 CFR parts 308, 318 & 381(H)
- Supported by the US Department of Agriculture

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APPLICATIONS

* **Manufacturing, engineering, automotive:** Mopping, ragging, jetting, soaking of floors, parts, machinery

* **Fuel oil depots, petrol stations**: Removal of oil from deep-stained concrete, pumps and pipework

* **Transport**: Traffic film removal; oiled fuelling bays; engine & carriage cleaning; remediation of rail ballast

* **Airports, emergency services**: Removal of oil from runway/apron, aircraft pads, roads; as a dispersant.

* **Commercial:** General purpose use in hotels and offices, on carpets, upholstery

* **Domestic**: Walls, carpets, bathrooms, glass etc. Shipping: Engine room; bilges; painted surfaces

DIRECTIONS FOR USE

OIL-STAINED CONCRETE: 1:1 - 1:5 dilution. Several applications (pressure jet or mop with brush to chase) may be needed for deep stains. Leave floor moist between applications. First applications may bring a slick to the surface. This should be hosed off before next application. Regular application to frequently oiled concrete will speed future bioremediation.

GRIMY ENGINES/MACHINERY: Heavy grease -dilution 1:3; Medium grease - 1:10; Light grease - 1:15-20. Spray on. Remove with hose, jet or rag.

TRAFFIC FILM REMOVAL; VEHICLE INTERIORS: 1:10 - 1:80 dilution. Stronger solution for heavily caked vehicles.

WIPES/RAGS: 1:5 dilution for rags - soaked overnight to remove oil.

ROUTINE MOP-and-BUCKET MIXTURE: 1:5 - 1:10

PRESSURE WASHERS: 1:10 - 1:20 dilution.

ELECTRICAL PARTS, including printed circuit boards: up to 1:20 dilution. Parts must be well air-dried afterwards. OIL SPILL ON WATER: As a dispersant at dilutions of 1:20 - 1:40.

TILES: 1:80

STAINED FABRICS: 1:1

See Product Safety Data Sheet

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Oil Cleaning Bio-Products Ltd - PO Box 46 - Royston - Hertfordshire - SG8 9PD - United Kingdom
tel (+44) 01763 287 749 fax (+44) 01763 287 749
email info@ocbp.co.uk

Our Ref: J5758F/idh
22 October 2003

F.A.O. Robert Johnson
Flintshire County Council
County Hall
Mold
Flintshire
CH7 6NF

Dear Sir,

Re: Remediation of contaminated land at 'Bilberry', 'Glenroyd' and 'Northwood'.

With reference to our discussions and recent telephone conversations regarding our remediation statement at the above properties. As you are aware since your letter dated 23 April 2003, we have supplied you with 13no analytical readings from soil samples taken from the three properties which are as per the following.

Item 6.5 – 'Bilberry'
Report 13.06.03, 6no soil samples

Analytical results showed a reduction of T.P.H. levels compared with the previous results available, a reduction from 1,000/2,000 mg/kg reduced to 60/90 mg/kg due to the 'Supazorb' treatment. These will continue to fall to a condition of harm is insignificant.

'Bilberry'
Report 20.06.03, 3no soil samples

As requested by yourself on behalf of FCC further samples were taken, two at the front of the house which were clear at 10/11 mg/kg. Also a sample analysed at 147 mg/kg in the rear garden, the sample taken was near the former location of the diesel storage tank where a previous reading which had been taken was 1230 mg/kg prior to treatment with 'Supazorb'.

'Bilberry'
Report 16.07.03, 1no. soil sample

This sample was taken during a meeting with yourself and the client, Mr Cawley (as per your letter dated 21 August 2003). The analysis of the soil sample did show a large reduction in T.P.H. levels compared with previously available results. A reduction from between 1,000/2,000 mg/kg to 199 mg/kg. As the soil has been treated with 'Supazorb' the T.P.H. levels will continue to fall to an insignificant level.

Ack

ACK

FILE 102256

Cont/....

arca

International Damage Management
Merryhill House Budds Lane Romsey Hampshire SO51 0HA
T 01794 515848 F 01794 524386
E enquiries@merryhill-idm.co.uk W www.merryhill-idm.co.uk