

BY HAND

17 December 2008

Office of Climate, Licensing and Resource Use
Environmental Protection Agency
PO Box 3000
Johnstown Castle Estate
Co. Wexford

**Environmental
Protection Agency**

18 DEC 2008

Dear Sir / Madam

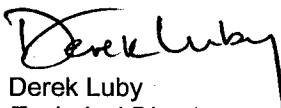
**Re: Behan's Land Restoration Limited
Waste Licence Application for Blackhall Soil Recovery Facility, Naas, Co. Kildare
Objection / Submission on the Proposed Decision dated 21st November 2008
Waste Licence Reference No. W0247-01**

We refer to your letter dated 21st November 2008 informing us of the Agency's proposed decision in relation to the above Waste Licence application.

Behan's Land Restoration Ltd. Blackhall, Punchestown, Naas Co. Kildare wishes to make an objection / submission on the proposed decision. A copy of its objection / submission is attached which describes the grounds of objection and the reasons on which they are based.

A cheque for the required fee of €500 is also enclosed.

Yours sincerely,
For SLR Consulting (Ireland) Ltd.


Derek Luby
Technical Director

Enc. Copy of Objection Submission
Cheque for Fee - €500

cc. Mr. John Behan – Behans Land Restoration Ltd.

BEHANS LAND RESTORATION LIMITED

**SUBMISSION ON PROPOSED DECISION OF
THE ENVIRONMENTAL PROTECTION AGENCY
TO GRANT A WASTE LICENCE FOR A
SOIL RECOVERY FACILITY AT
BLACKHALL, NAAS, CO. KILDARE**

WASTE LICENCE APPLICATION No. W0247-01

17 DECEMBER 2008



Prepared by :
John Barnett and Associates /
SLR Consulting
7 Dundrum Business Park
Windy Arbour
Dublin 14



Submission on Proposed Decision of the EPA to Grant Waste Licence Application for
Soil Recovery Facility at Blackhall, Naas, Co. Kildare (Ref W0247-01)

PROJECT DETAILS
CLIENT : Behans Land Restoration Limited
PROJECT : Blackhall Soil Recovery Facility, Naas, Co. Kildare
JOB NO : 3746

DOCUMENT TITLE	REVISION	STATUS	DATE
Submission on EPA Proposed Decision	Rev 0	Issued	17 Dec 2008

REV.	FILE REFERENCE	AUTHOR	REVIEWED	APPROVED	DATE
Rev. 0	SLR3746/PDSubmission	Derek Luby <i>[Signature]</i>	Derek Luby <i>[Signature]</i>	Tim Paul <i>[Signature]</i>	17 Dec 2008

DISTRIBUTION				NO. OF COPIES
	Paper	Disk	E-mail	
EPA (Office of Climate, Licensing & Resource Use)	✓			3
Behans Land Restoration	✓			1
SLR File	✓			1

CONTENTS

- 1 INTRODUCTION**
- 2 GENERAL COMMENTS ON PROPOSED WASTE LICENCE**
 - 2.1 Commencement Date
 - 2.2 Reference to 'Landfilling'
- 3 SPECIFIC COMMENTS ON CONDITIONS OF WASTE LICENCE**
 - 3.1 Waste Acceptance and Characterisation Procedures
 - 3.2 Limit Values for Pollutant Content
 - 3.3 Groundwater Monitoring Requirements
 - 3.4 Annual Charges
 - 3.5 Office Facilities
 - 3.6 Work within 10m of Site Boundary
 - 3.7 Energy Audit
 - 3.8 Wind Sock
 - 3.9 Interpretation

REFERENCES

FIGURES

- Figure 1 Additional Groundwater Monitoring Locations

*For inspection purposes only.
Consent of copyright owner required for any other use.*

1 INTRODUCTION

This submission is made on behalf of Behans Land Restoration Ltd. (the 'Applicant') in response to the proposed decision of the Environmental Protection Agency (the 'Agency') to grant a Waste Licence for the continued operation of an existing waste recovery facility at Blackhall, Punchestown, Nas, Co. Kildare (Ref. No. W0247-1).

The Applicant would like to acknowledge at the outset that the proposed decision to issue a Waste Licence to it is positive and generally favourable to it, and to record its appreciation of the timely and efficient manner in which the Agency has processed its licence application.

That said, the proposed decision includes a number of specific provisions and references which the Applicant considers

- (i) do not adequately reflect the fact that the waste recovery facility is currently extant;
- (ii) do not take account of the need for a transition period, whereby the Applicant is allowed a reasonable period of time to upgrade its existing site infrastructure and introduce new management systems to comply with the additional requirements of the Waste Licence, over and above those previously identified in its Waste Permit from Kildare County Council;
- (iii) do not recognise the nature of its established business, specifically the origin and nature of the waste streams being imported and recovered at the site;
- (iv) do not recognise its environmental record in operating and managing the existing waste recovery facility from its establishment in 2001 to date.

In this submission, the Applicant identifies a number of conditions in the proposed decision which it would like the Agency to reconsider and amend prior to issuing the final decision on the Waste Licence in respect of its existing waste recovery facility. Where appropriate, the Applicant has also suggested possible amendments to the licence which address the perceived shortcomings outlined above.

Section 2 of this submission makes a number of general points, which relate to the proposed decision as a whole, while Section 3 of the submission addresses a number of specific conditions contained in the proposed decision.

2 GENERAL COMMENTS ON PROPOSED WASTE LICENCE

2.1 Commencement Date

The proposed waste licence repeatedly stipulates that certain tasks and objectives should be completed '*prior to the commencement of the licensed activity*' or '*within (defined time period) of the date of commencement of the licensed activity*'. As the Agency is aware, the waste recovery facility being licensed is already established and is operating in accordance with a Waste Facility Permit issued by Kildare County Council and that this licence application has been prompted solely by the change in the threshold limits for Waste Facility Permits as set out under Classes 5, 6 and 7 of Part 1 of the Third Schedule of the Waste Management (Facility Permit and Registration) Regulations 2007 (S.I. 821 of 2007), as amended.

Given that the proposed Waste Licence relates to an existing permitted waste facility and NOT a new facility as might otherwise be inferred from the proposed waste licence, the Applicant requests that the requirement for certain tasks and objectives to be undertaken '*prior to commencement*' be amended to identify a set timescale within which they can be completed, during which time the existing facility can continue to trade and operate as it has done heretofore.

It is important to the Applicant that its transition from being regulated by a Local Authority Waste Facility Permit to being regulated by a Waste Licence is smooth and cost efficient and does not necessitate any temporary or prolonged cessation in activities, pending compliance with new Waste Licence conditions. Given that the Applicant has to continue to attend to day-to-day operations at the waste recovery facility, it requests that the permitted timeframe to upgrade its existing site infrastructure and introduce new management systems in accordance with the requirements of the Waste Licence is not less than 12 months.

Accordingly therefore the Applicant requests that the phrase '*prior to the commencement of licensed activities*' in the following conditions be amended to read '*within 12 months of grant of this waste licence*'.

- Condition 2.2.1
- Condition 3.1
- Condition 3.2.1
- Condition 6.7
- Condition 6.10
- Condition 8.8.2
- Condition 9.1
- Condition 9.2

Similarly the phrase '*within (defined time period) of the date of commencement of the licensed activity*' in the following conditions should be amended to read '*within (defined time period) of the date of grant of this waste licence*'

- Condition 2.2.2.8
- Condition 7.1
- Condition 12.1 (twice)

2.2 Reference to 'Landfilling'

The Applicant is concerned that a number of references to landfills and landfill guidance documentation in the proposed Waste Licence may lead outside observers to infer that it is engaged in landfilling activity.

The Applicant asserts that its primary objective is waste recovery for land restoration purposes, by means of deposit of inert waste on land. Although it recognises that there are some superficial similarities between this activity and the disposal of waste in landfills, the two activities are fundamentally different in terms of their fundamental objective and the level of associated environmental risk.

Submission on Proposed Decision of the EPA to Grant Waste Licence Application for
Soil Recovery Facility at Blackhall, Naas, Co. Kildare (Ref W0247-01)

Although the Applicant recognises that there is no existing guidance on the operation of licenced recovery facilities of this type and scale, it nonetheless considers it inappropriate for the Agency to refer to Landfill Guidance Manuals in the conditions of the proposed licence as these relate to a fundamentally different waste activity. The Applicant is concerned that reference to Landfill Guidance Manuals within the proposed licence will only add credence to assertions or perceptions by third parties that the proposed waste recovery activities are *de facto* landfilling.

Accordingly, the Applicant requests that the Agency review the necessity to include reference in the following conditions of the proposed Waste Licence to either to landfilling or its Landfill Guidance Manuals:

- Condition 3.15.2
- Condition 3.17
- Condition 11.6(viii)
- Condition 12.2.2 (ELRA)

As and where appropriate, the Applicant requests that the Agency refer to other guidance documentation which may be more relevant to an inert waste recovery facility of the size and scale of the Blackhall site.

For inspection purposes only.
Consent of copyright owner required for any other use.

3 SPECIFIC COMMENTS ON PROPOSED CONDITIONS OF WASTE LICENCE

3.1 Waste Acceptance and Characterisation Procedures

The Applicant considers that the requirement in Schedule A2 for a basic characterisation testing to include a chemical analysis on a representative sample for every 2,000 tonnes (or portion thereof) of each excavation or demolition works is excessive and is ill-suited and impractical for its established business model and customer profile, for reasons outlined below

Consistency with European Legislation

As noted in the Waste Acceptance and Handling Plan forwarded to the Agency in September 2008, all waste materials to be accepted at this waste facility, namely

EWC Code	Waste Description
17 05 04	Soils and stone other than those mentioned in 17 05 03
17 01 01	Concrete
17 01 02	Bricks
17 01 07	Mixture of concrete, bricks and ceramics other than those mentioned in 17 01 06

are included on the list of wastes in Clause 2.3.1 in Section 2 of the Annex to Council Decision 2003/33/EC which are assumed to fulfil

- (i) the criteria set out for the definition of inert waste in Article 2(e) of the Landfill Directive (1999/31/EC) and
- (ii) the criteria listed in Section 2.1.2 of the Annex to 2003/33/EC.

The Applicant asserts that as such, the wastes to be imported to and accepted at its facility are deemed to be **exempt** from the general requirement for characterisation testing and that the requirement to undertake detailed characterisation testing in respect of every 2,000 tonnes (or portion thereof) of each excavation is excessive and inconsistent with the requirements of Council Decision 2003/33/EC. The Applicant contends that, in keeping with European legislation, all inert waste (irrespective of source) which conforms to the EWC codes provided above should be acceptable for recovery at the Blackhall waste recovery facility **without** prior characterisation testing.

The Applicant asserts that it has operated the existing facility in accordance with a waste permit from Kildare County Council for over 7 years without the requirement for characterisation testing and that soil and groundwater testing at the application site has confirmed that there has been no adverse impact on soil or groundwater quality. The Inspector, in her report on the waste licence application recognises as much, and states in Section 4.5 that *'the available groundwater test data indicates that there is no disparity between groundwater quality up- and down-gradient of the site. This demonstrates that ongoing site restoration activities to date have not had any adverse impact on groundwater quality'*.

Scale of Source Excavations

The Applicant does not receive, and seldom ever has received, large consignments of excavated inert soil or site-sorted demolition material from a single construction site, of the scale suggested by the proposed waste licence.

Much of the inert material imported to the existing waste recovery facility at Blackhall is sourced from small scale excavation works undertaken by, or more usually on behalf of, utility companies including Electricity Supply Board (ESB), Bord Gais, Eircom, BT, cable companies and Local Authorities (Water Services). In general, no more than 4 to 5 HGV loads (80 to 100 tonnes) of

excavated soil and stones from a specific excavation are imported to the Blackhall facility for recovery purposes by utilities Contractors over a one to two day period.

Time Constraints

The requirement to undertake chemical analysis of soil and stones arising from relatively small utilities excavations in advance of the works is impractical and unlikely to be implemented in practice (in the short to medium term at least). Much utility repair and installation work is undertaken at short notice, in response to unexpected breakdowns or disruption of service. In such instances, it is clearly impractical and prohibitively costly to arrange for pre-excavation and sampling (which gives rise to as much disruption and cost as the actual excavation to repair or install the particular utility) and to then spend several hundred euro and wait seven to ten days to obtain sample test results before proceeding to excavated the soil (again) and transfer it to a soil recovery facility.

Even with planned utility installation works, utilities companies do not currently routinely undertake advance soil quality analysis on either soil or eluate samples for any scale of excavation, and it is unlikely that they will routinely do so in the short to medium term.

Market Competitiveness

The increased costs incurred by the Applicant in implementing the proposed test regime will have to be passed on to its customers in the form of increased gate fees. The increased cost would be proportionately higher for the Applicant given the relatively small volume of excavated materials to be imported from each site.

As the Agency is no doubt aware, the market rate for recovery / re-use of inert soil and stones at facilities such as this is, and has been for many years, no more than a few euro per tonne. The Applicant cannot over emphasise the degree of cost-sensitivity which applies to gate fees at soil and/or construction and demolition waste recovery facilities, where there is significant resistance to increases of even a few cents per tonne.

The Applicant contends that if he is compelled to implement the proposed characterisation testing regime and insist that its Clients provide it with results of advance soil quality testing, it will lose most of its existing Client base and that materials which otherwise would have been brought to its site will be diverted to competitor (permitted) sites, where no requirement currently exists for a similarly onerous level of characterisation testing.

If the Agency adheres to the position indicated in the proposed waste licence, the process of licensing soil recovery sites may have the rather perverse effect of encouraging large numbers of small permitted facilities at the expense of larger licenced facilities.

Proposed Amendment to Waste Licence

In view of the points raised above, the Applicant requests that the Agency review Schedule A2 of the proposed waste licence so that it is more appropriate to the nature and scale of its existing business and has regard to its established track record in environmental management to date.

Notwithstanding its assertion that no prior characterisation of inert waste is appropriate or required at this waste recovery facility (in keeping with accepted practice throughout the EU), the Applicant is prepared to accept an amendment to Schedule A2 to the effect that

- (i) the requirement for a representative load from every excavation / demolition / waste removal works to be subjected to a comprehensive assessment which satisfies Level 1 Basic Characterisation requirements *only applies to excavation / demolition / waste removal works which generate in excess of 2,000 tonnes of recoverable material from a single source site;*
- (ii) in addition to the above, the Applicant shall, on an annual basis, subject materials recovered and deposited on land over the preceding year to comprehensive assessment which satisfies Level 1 Basic Characterisation requirements by excavating trial pits, taking representative samples and subjecting them to chemical analysis at a rate of one test sample per 10,000 tonnes of recovered material.

3.2 Limit Values for Pollutant Content

Although the Applicant recognises the principles behind the requirement in Schedule A3 for the eluate quality of any Level 1 or Level 2 compliance testing on waste for placement at the facility to be equivalent to background water quality established at the upgradient well (singular), the Applicant is concerned that the proposed limit values are unreasonable and/or unworkable in practice for the reasons outlined below:

- (i) there is likely to be some random variability in the monitored concentrations of the groundwater parameters specified in Schedule C.2.2 of the licence and measured at the upgradient well. This variability could be attributed to a variety of factors including natural variability, sampling and handling errors, laboratory test errors etc. A variation in measured groundwater parameters at the upgradient well will not give the required degree of clarity or certainty when making assessments as to the acceptability of waste materials for recovery at this facility;
- (ii) the proposed limit values could effectively exclude natural soils with different geochemistry to those surrounding the facility from being accepted at the facility. The national soil database has identified that there is a strong relationship between soil geochemical characteristics and the soil type and underlying geology and that anthropogenic effects (such as land use characteristics) exert less influence on soil geochemistry than the effects of soil type and geology (Teagasc, EPA, 2007). In these circumstances, the Applicant is concerned that the effect of the proposed limit values may be to restrict intake at its recovery facility to soils excavated in the surrounding area;
- (iii) followed to its logical conclusion, the application of the proposed acceptance limits to this and every similar licenced or permitted facility would alter the dynamics of the existing soil recovery market, as each facility would have a **unique** set of waste acceptance criteria for wastes which is generally classified as inert. Rather than having a range of options as to where it might send waste for recovery as it has at the present time, a Contractor might find that having cross-checked different waste acceptance criteria at a number of facilities, its options on where to forward material for recovery are much more constrained. Consistent application of the proposed acceptance criteria would effectively introduce greater confusion and uncertainty and less competition in the soil recovery market. And if the proposed acceptance criteria cannot, or will not, be adopted consistently across the market, the Applicant contends that it is unreasonable that it should find itself placed at a commercial disadvantage as a result of the proposed acceptance limits;
- (iv) the results of tests on eluates derived from soil samples are conventionally expressed in units of *mg/kg*, whereas the results of water quality tests on groundwater are expressed in *mg/l*. Results from the two test methods cannot therefore be readily compared and may require review on an ongoing basis by technical specialists. For this reason, the Applicant considers that the proposed limit values will make acceptance procedures unwieldy and lead it to incur greater costs and delays than might otherwise be the case;
- (v) a significant proportion of the soils imported, separated and/or recovered at this facility are sources from utilities excavations in urban or suburban environments. As such, it should be no great surprise to find that the quality of soils excavated in these environments is slightly degraded when compared to that excavated from a greenfield site. The Applicant is concerned that the effect of setting limit values for soil eluates at equal to or lower than the existing upgradient (and downgradient!) groundwater quality standard may effectively restrict acceptance of soils from utility excavations at this site and result in the loss of much of its established business and diversion of soils to permitted facilities operating to other, less stringent acceptance criteria;
- (vi) the existing facility has, to date, adopted acceptance procedures which have had regard to the inert waste acceptance criteria specified in Section 2.1.2. of Council Decision 2003/33. The application of these limit criteria has, to date, ensured that the operation of the existing facility has had no adverse impact on groundwater quality. The Applicant asserts that as such, it is not unreasonable to expect that these acceptance criteria should continue to apply at this facility into the future.

In view of the points raised above, the Applicant requests that the Agency review the acceptance limit criteria indicated in the proposed waste licence and apply the more universally recognised limit criteria for inert waste set by Council Decision 2003/33.

3.3 Groundwater Monitoring Requirements

Condition 3.15.1 of the proposed Waste Licence requires the Applicant to install and maintain 2 upgradient groundwater wells and 5 downgradient groundwater wells. Prior to the making and submission of this application, the Applicant installed 3 groundwater monitoring wells in order to measure groundwater levels and prove groundwater quality across this site, 1 upgradient and 2 downgradient.

The Applicant asserts that requirement for 2 upgradient and 5 downgradient groundwater monitoring wells is excessive and that the available groundwater monitoring infrastructure is entirely appropriate for the existing waste recovery facility given

- (i) the waste recovery activities present a very low risk to the environment
- (ii) groundwater testing at the site has to date confirmed that the operation of the facility has had no adverse impact on groundwater quality and
- (iii) Section 4, Annex III of Council Directive 1999/31/EC on the landfill of waste, although not applicable to this activity, stipulates that a minimum of 3 groundwater monitoring wells (1 upgradient and 2 downgradient) should be installed at landfill facilities which would normally be expected to present significantly higher risks to the environment.

If, notwithstanding the points made above, the Agency remains of the view that additional groundwater monitoring is necessary, over and above that provided for by the 3 existing groundwater wells, given that

- (i) the existing surface water bodies on the former quarry floor site are in hydraulic continuity with the groundwater table and that
- (ii) there is a private groundwater well (WELL 1) downgradient of the recently backfilled and restored section of the waste recovery site, from which directors of the Applicant company currently abstract water for their own private consumption (refer to Figure 1).

the Applicant proposes that Condition 3.15.1 be amended to also include

- (i) monitoring of groundwater from the 2 principal existing groundwater ponds as part of the groundwater monitoring programme for as long as they remain exposed (ie. uncovered) at the site and/or
- (ii) monitoring of groundwater quality from the private well (WELL 1) as part of the groundwater monitoring programme. This well will effectively function as a third down-gradient groundwater monitoring well (albeit of the area which has been backfilled in recent years).

The Applicant further considers that the requirement to undertake quarterly monitoring and testing of groundwater for a number of defined parameters (identified in Schedule C2.2) is excessive in light of the environmental record and performance of its existing facility to date. Given the relatively low level of environmental risk which attaches to the soil recovery activities undertaken at the application site, the Applicant requests that the Agency reduce the frequency of groundwater monitoring for all test parameters identified in Schedule C2.2 to bi-annually.

3.4 Annual Charges

Condition 12.1.1 of the proposed licence requires the Applicant to pay an annual contribution of €11,574 to the Agency to defray the costs incurred by it in undertaking the regulatory functions assigned to it under the Waste Management Acts 1996 to 2008. This amount is significantly in excess of the annual contribution of €7,269 recommended in the Inspector's report on the application.

The Applicant therefore requests that the Agency review this provision and reduce the amount of the annual contribution to an amount equivalent to that recommended by the Inspector. In making this request, the Applicant has had regard to the conditions of the waste licence for a nearby inert landfill at Ballymore Eustace operated by KTK Sand and Gravel Limited (Waste Licence Ref. 156-1), where the annual contribution, at €6,983, is broadly comparable to the amount calculated by the Inspector.

3.5 Office Facilities

Condition 3.6 of the proposed waste licence requires the Applicant to maintain a site office at the facility. As indicated in the waste licence application, the Applicant does not currently maintain its office facility within the application site, but maintains one at the adjoining private residence owned by its directors, John and Norma Behan.

The Applicant would like to continue with the current arrangement going forward as it has served it well in the past. It therefore requests that the Agency amend Condition 3.6.1 to state that *'The licensee shall provide and maintain an office at the facility or at the adjoining private residence occupied by its directors'*. The Applicant further requests that the Agency amend Condition 3.6.2 and Condition 3.6.3 to require phones and faxes to be provided and maintained *'at the facility office'* rather than *'at the facility'*

Notwithstanding this, the Applicant will establish a dedicated office within the confines of the application site to facilitate members of the public who wish to inspect files and/or obtain information about the facility in accordance with the requirements of Condition 2.2.2.7 of the proposed licence. Further details of these arrangements will be provided in the Environmental Management System established in accordance with the provisions of Condition 2.2.

3.6 Work within 10m of Site Boundary

Condition 3.16.2 of the proposed waste licence requires the Applicant to maintain a 10m buffer zone between existing boundary hedgerows and the infilling works. While the Applicant is agreeable to this provision in principle, he requests that the Agency amend it to provide it with a degree of latitude to undertake works within the proposed buffer zone, only insofar as this may be necessary to

- (i) profile the ground surface to provide for overground run-off of surface water rather than create closed depressions or artificial deep ditches immediately inside the site boundary and/or
- (ii) better blend the proposed landform into the landscape.

3.7 Energy Audit

The Applicant considers that the requirement in Condition 7.1 of the proposed waste licence for an audit of energy efficiency at the existing facility is excessive, given that almost 100% of the energy consumption at the site is related to operation of diesel powered plant and machinery and that the resulting scope to achieve energy, environmental and cost efficiencies is extremely limited. It therefore requests that the Agency review and delete Conditions 7.1 and 7.2 of the proposed licence.

In order to address the Agency's concerns on this issue however, the Applicant is prepared to accept an alternative condition requiring it to ensure that all plant and machinery operating at the facility is serviced and maintained on a regular basis and no less than once annually. The Applicant considers that this condition is sufficient to ensure that plant and equipment at its facility continue to operate at an acceptable efficiency level.

3.8 Wind Sock

Condition 3.14 of the proposed waste licence requires the Applicant to provide and maintain a wind sock at a prominent location visible from the public roadway outside the site. The Applicant is concerned that this may give members of the public the misleading impression that the facility either

- (i) gives rise to environmentally significant emissions to air or
- (ii) is a waste disposal or landfill site.

In the absence of any environmentally significant emissions to air from this facility, the Applicant contends that there is no technical need for a wind sock. It therefore requests that the Agency review and delete the requirement for a wind sock at this facility.

3.9 Interpretation

Condition 4.4 of the proposed waste licence states that the activity shall not give rise to dust deposition levels which exceed the limit value. For clarity, the Applicant requests that this condition be amended to read that '*Dust from the activity shall not give rise to deposition levels beyond the site boundary which exceed the limit value*'.

REFERENCES

Teagasc / Environmental Protection Agency (2007) Soil Geochemical Atlas of Ireland, ed. G. Kramers

For inspection purposes only.
Consent of copyright owner required for any other use.



	Gateway
	Deciduous Tree Drawn to Size
	Sewer Manhole and details
	Fence
	2007 Borehole / Monitoring Well
	Building
	ESB/Eircom Pole and Cable
	Embankment
	Wall
	Trees
	Ditchline
	Additional Groundwater Monitoring Locations
	Ground Contours
	Ground Water Levels

Site:	Blackhall, Punchestown, Naas, Co. Kildare
Project:	Blackhall Site Restoration
Title:	Additional Groundwater Monitoring Locations
Drawn:	SLR - BAK
Job. No:	405-636-0004
Scale:	1:1,250
Date:	December 2008

Rev.	Date	By	Description
0	FEB 08	LMC	

SURVEY INFORMATION PROVIDED BY ERKINA SURVEYS
REF: 0941-1 REV.0 DATED 22-8-07

JBA

SLR
JOHN BARNETT & ASSOCIATES
7 DUNDRUM BUSINESS PARK
WINDY ARBOUR
DUBLIN 14

BEHAN'S LAND RESTORATION LTD.
BLACKHALL, PUNCESTOWN
NAAS
CO. KILDARE

FIGURE PD1