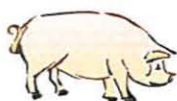


ATTACHMENT E.3.

2010 N.M.P.

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**NRGE
MOORESFORT
LATTIN
Co TIPPERARY
Tel; 062-55385
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Email m.sweeney@nrge.ie**



MANAGEMENT OF PIG MANURE

FERTILISER PLAN

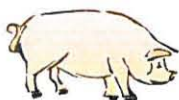
FOR

I.P.C. LICENCE REG No PO 0000-01

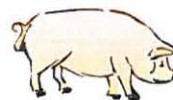
AT

**BALLYFAUSKEEN, BALLYLANDERS
CO LIMERICK**

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MARCH 2010



1. INTRODUCTION

- 1.1 This pig unit owned by Ballyfaskin Enterprises Ltd at Ballyfauskeen, Ballylanders Co Limerick, has the benefit of full planning permission. It is above the threshold limit requiring an IPPC License. An application has been lodged with the Environmental Protection Agency for an IPPC License for this facility. The operational level of this farm is 400 Sows Fully Integrated.
- 1.2 The maximum level of pig manure production for 2010, will be 000000 m3 approx, in accordance with the calculations set out in Table 1.
- 1.3 Twenty nine customer farms comprising of 1493 usable hectares of agricultural land are programmed to use this pig manure fertiliser currently. A fertiliser plan has been provided by each individual customer farmer. This plan has taken into account, the phosphorus level in the soil, the phosphorus and organic nitrogen produced on the farm, the phosphorus and organic nitrogen content of the pig manure, and the limit to the amount of nitrogen that can be spread from pig manure. (i.e. 170 Kgs per hectare). Spreading during the growing season only, will further protect against the nitrate-nitrogen contamination of groundwater.
- 1.4 All customer farmers will be advised that application of pig manure must be carried out in accordance with the recommendations of the European Communities (Good Agricultural Practice for Protection of Waters) Regulations S.I. No. 101 of 2009.
- 1.5 An individual fertiliser plan has been produced by each farm, which qualifies for an allocation of pig manure for 2010. These individual farm fertiliser plans are included as Attachment No 3. These individual fertiliser plans are presented as a farm pack, which includes a map (scale 1:10560), a summary analyses report of the most recent soil P tests, along with the fertiliser plan on the newly drafted 11B(ii) format.
- 1.6 A composite map of the customers farms is included as Attachment No 2. This map was prepared from the O.S. Discovery Series; (Scale 1:50,000). We are currently awaiting plans for a number of other farms, and these will be added to the customer list when available . However the current list of customers have a capacity to receive a greater volume of pig manure than will be produced in the coming year.
- 1.7 The individual fertiliser plans included in the farm packs in Attachment No 3, are prepared on the basis of the most recent soil analyses results and "THE DEPARTMENT OF AGRICULTURE & FOOD RECOMMENDATIONS (S.I. No. 101 of 2009). A number of farms did not have soil analyses results, and in these cases we utilised the provision of Article 16 2(a), page 12 of S.I. No 101 of 2009, which provides for the use of an assumed Index 3.
- 1.8 Table 11B(I) of the IPC Licence application has been updated and is included as Attachment No 1.
- 1.9 The abbreviations used in the individual fertiliser plans, included in Attachment No 3 are

PP	Permanent pasture
1CS	1 Cut silage
2CS	2 Cut silage
3CS	3 Cut silage
MZ	Maize
SA	Set Aside
Bar	Barley
Beet	Sugar Beet

2. PIG MANURE USE.

All the pig manure produced at this site, will be applied to maintain soil fertility. Twenty nine customer farmers in the locality with a total of 1493 usable hectares are customers for the product, after allowing for "cordon sanitaires" around streams and rivers, dwelling houses, and rock outcrops. On the basis of this data, and the "DEPARTMENT OF AGRICULTURE & FOOD RECOMMENDATIONS (S.I. No. 101 Of 2009)", a plan was produced for each farm.

A value of 0.8 kgs P/m³, and 4.2 kgs N/m³ of pig manure from this unit was used in the calculation of the individual farm fertiliser programmes, in accordance with Table 7, page 37 of S.I. No 101 of 2009.

In relation to the application of pig manure, phosphorus and nitrogen are the two elements of concern in relation to the environment. Phosphorus, if applied in excess, builds up in the surface layers of the soil. In sensitive areas, with direct access to watercourses and streams, the level of phosphorus in the soil must be managed by controlling the application.

Nitrogen, because it is readily leached into the groundwater, if applied out of season, when the grass roots are not actively growing, and there are substantial fluxes of soil water percolating downwards as recharge. However these risks are mitigated, by the fact that pig manure from this unit will only be applied when growing conditions exist, and at rates governed by a fertiliser plan.

Soil P levels in the selected customers lands are generally low, and well below that required for optimum crop production, and could benefit from the application of pig manure. Farmers will receive pig manure, based on their individual fertiliser plans.

The fertiliser in the pig manure will substitute for chemical fertiliser, except where a limited amount (chemical fertiliser), is required for balancing purposes. In all cases the rate of application will be matched to the nutrient requirements of the crop, and the nutrient status of the soil.

The total phosphorus requirement of the twenty nine customer farms is 26666 Kgs, after allowing for the phosphorus supplied from the on farm livestock. Pig manure is allocated to these farms on the basis of their crop nutrient requirement. The projected total P content of the pig manure from this site, for 2010, is 0000Kgs, which is calculated from projected volumes (see Table 1').

Table 2 attached outlines the usable area, phosphorus requirement, and pig manure allocation of each customer farm.

TABLE 1. CALCULATION OF PIG MANURE PRODUCTION

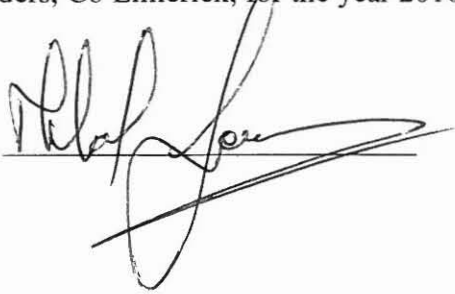
PIG TYPE	NUMBER OF STOCK	NEAT excreta Pig/week (litres)	Total Litres	Total M3
Farrowing Sows	127	97	12319	12.32
Dry Sows	273	44	12012	12.01
Boars	5	44	220	0.22
Gilts	100	44	4400	4.40
Weaner	2300	12	27600	27.60
Fattener	2500	34	85000	85.00
Total Pig Manure per week			141551	142
Total Pig Manure per annum			7360652	7361
Extreanous water 8%			588852	589
Total annual production pig manure			7949504	7950

TOTAL PIG MANURE TO BE LANDSPREAD 7950 M3

TABLE 2: Summary details of Customer Farms for 2010

Farm Code	Allocation Pig Manure M3	Kgs P Req	AREA (Ha)
1	43	640.20	42.68
2	160	684.60	45.64
3	160	668.85	44.59
4	150	1205.40	80.36
5	120	865.35	57.69
6	314	785.55	52.37
7	399	597.90	39.86
8	757	1135.05	75.67
9	655	982.65	65.51
10	1551	1835.85	122.39
11	0	648	43.2
12	41	173.85	11.59
13	248	435	29
14	318	397.5	26.5
15	106	316.5	21.1
16	0	502.5	33.5
17	0	472.5	31.5
18	200	540.3	36.02
19	3054	3352.05	165.32
20	1151	2812.45	91.03
21	301	393.9	26.26
22	200	236.55	15.77
23	0	0	0
24	721	1011	67.4
25	149	1680.25	73.03
26	459	694.95	33.02
27	679	1759.2	59.04
28	174	527.95	15.29
29	1037	1310.4	87.36
TOTALS	13147	26666.25	1492.69

This report has been prepared and compiled by Michael Sweeney & Associates of NRGE LTD, Mooresfort, Lattin, Co Tipperary, on behalf of Ballyfaskin Enterprises Ltd in respect of the destination of pig manure from its pig unit at Ballyfauskeen, Ballylanders, Co Limerick, for the year 2010.

Signed: 

Date: March 2010

N.R.G.E. Ltd.
 Nutrient Recovery to Generate Electricity Ltd
 Mooresfort, Lattin, Co. Tipperary
 Tel: 062 55385
 VAT. No: 6412619V

INDEX OF ATTACHMENTS

ATTACHMENT No 1: 11B(I) Form

ATTACHMENT No 2: Composite Map (Scale 1:50,000)

ATTACHMENT No 3: Individual farm Fertiliser Plans

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NMP 2010

ATTACHMENT NO. 1

SUMMARY TABLE

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revision date: 20-Mar-10

TABLE 11B(i): CUSTOMER LIST & REQUIREMENT OF CUSTOMERS LANDS FOR FERTILISER P, and THE VOLUME OF PIG MANURE TO FILL THAT REQUIREMENT.

Farmers Code	Townlands in which manure may be used	Area ha	No Plots	P kg/yr	Manure m ³ /year
1	Carraghturk, Kileen, Spittal	42.68	1 to 6	640.20	43.00
2	Ardnamoher, Kilscanlon	45.64	1 to 6	684.60	160.00
3	Barna, Ballyfauskeen	44.59	1 to 7	668.85	160.00
4	Barna, Ballyfauskeen	80.36	1 to 11	1205.40	150.00
5	Glenahoglisha	57.69	1 to 6	865.35	120.00
6	Spittal, Duntryleague, Deerpark, Ballynatona	52.37	1 to 8	785.55	314.00
7	Spittal, Duntryleague, Killeen, BallyFroota	39.86	1 to 6	597.90	399.00
8	Ballynamona, Snughborough, Coolnaherin, Ballyconny	75.67	1 to 9	1135.05	757.00
9	Spittal	65.51	1 to 6	982.65	655.00
10	Oldcastletown	122.39	1 to 14	1835.85	1551.00
11	Keylogues	43.20	1 to 6	648.00	0.00
12	Kilross	11.59	1 to 8	173.85	41.00
13	Kiltankan	29.00	1 to 6	435.00	248.00
14	Ballylanders	26.50	1 to 4	397.50	318.00
15	Ballyduff	21.40	1 to 3	316.50	106.00
16	Ballyduff	33.50	1 to 4	502.50	0.00
17	Corderry	37.50	1 to 4	472.50	0.00
18	Curraurk	36.02	1 to 3	540.30	200.00
19	Mooresfort	165.32	1 to 27	3352.05	3054.00
20	Garrydoolis, Knockaundoolis	91.03	1 to 4	2812.45	1151.00
21	Lissard	26.26	1 to 6	393.90	301.00
22	Ryvescastle	15.77	1 to 3	236.55	200.00
23	Kilross	0.00	0.00	0.00	0.00
24	Kilcornan Knockroe	67.40	1 to 14	1011.00	721.00
25	Kilross	73.03	1 to 9	1680.25	149.00
26	Cauteen	33.02	1 to 9	694.95	459.00
27	Killeenagallive Crommell	59.04	1 to 11	1759.20	679.00
28	Cauteen Toem	15.29	1 to 5	527.95	174.00
29	Knockaren	87.36	1 to 13	1310.40	1037.00
		1492.69	0.00	26666.25	13147.00

PAT RYAN
NMP 2010

Farm Code	Allocation Pig Manure M3	Kgs Org N/Ha NOTE 2	KGS Org N /Ha NOTE 1	AREA (HA)
1	43	169.98	166.84	42.68
2	160	138.34	123.62	45.64
3	160	70.16	52.68	44.59
4	150	125.18	116.99	80.36
5	120	108.88	101.46	57.69
6	314	132.02	106.84	52.37
7	399	151.93	109.88	39.86
8	757	125.07	83.06	75.67
9	655	134.12	92.12	65.51
10	1551	165.73	112.51	122.39
11	0	157.99	157.99	43.2
12	41	169.82	154.96	11.59
13	248	146.06	110.14	29
14	318	147.68	97.28	26.5
15	106	167.07	145.97	21.1
16	0	156.42	156.42	33.5
17	0	46.38	46.38	31.5
18	200	153.80	130.48	36.02
19	3054	162.47	84.88	165.32
20	1151	169.78	116.68	91.03
21	301	165.43	117.29	26.26
22	200	120.61	67.34	15.77
23	0	0.00	0.00	0
24	721	168.77	123.84	67.4
25	149	169.19	160.62	73.03
26	459	168.77	110.39	33.02
27	679	169.07	120.77	59.04
28	174	168.46	120.67	15.29
29	1037	168.25	118.40	87.36
TOTALS	13147.01			1492.69

NOTE 1 KGS ORG N/HA FROM ON FARM STOCK ONLY

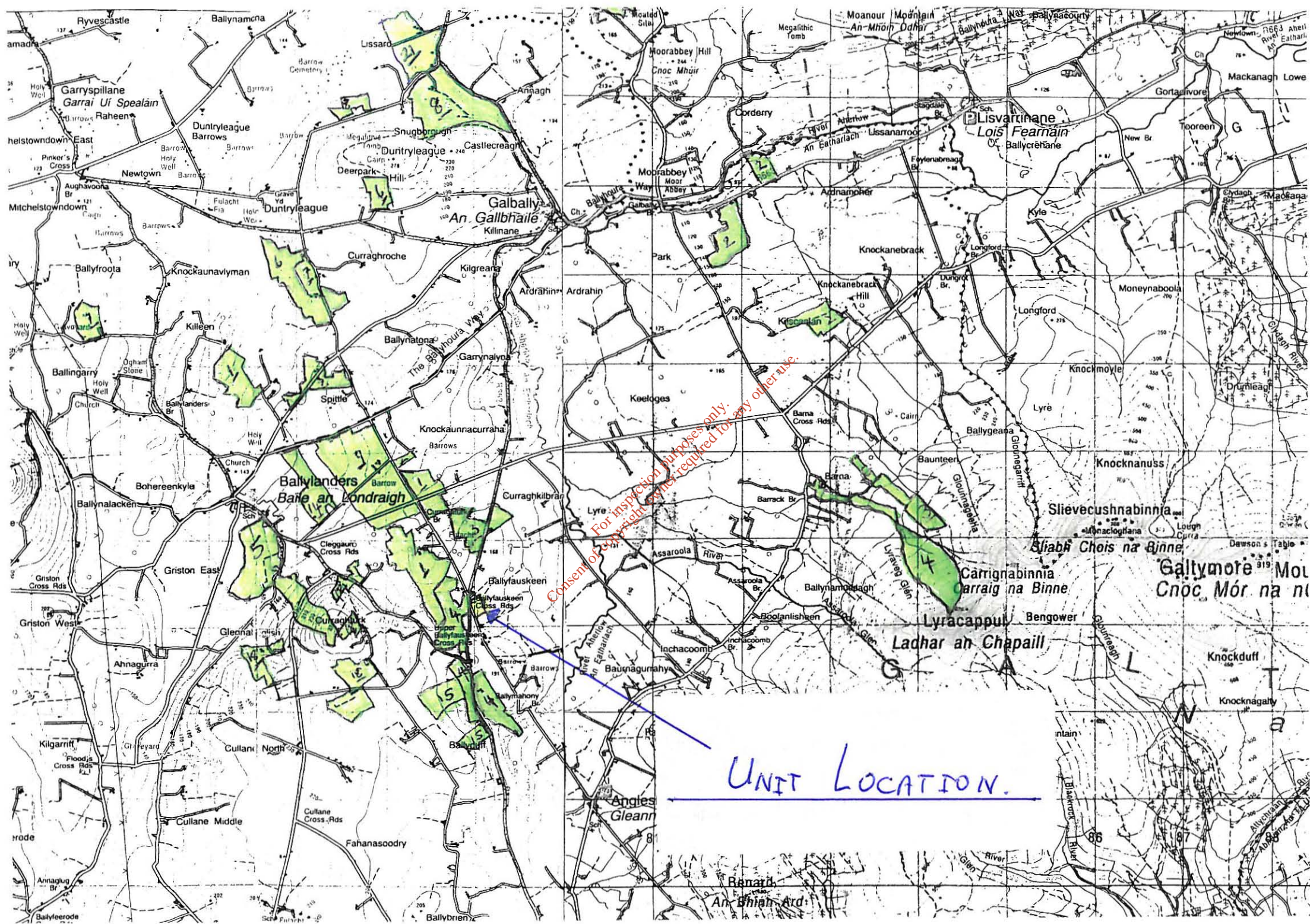
NOTE 2 KGS ORG N/HA FROM ON FARM STOCK AND IMPORTED PIG MANURE

BALLYFASKIN ENTERPRISES LTD.
NMP 2010

ATTACHMENT NO 2

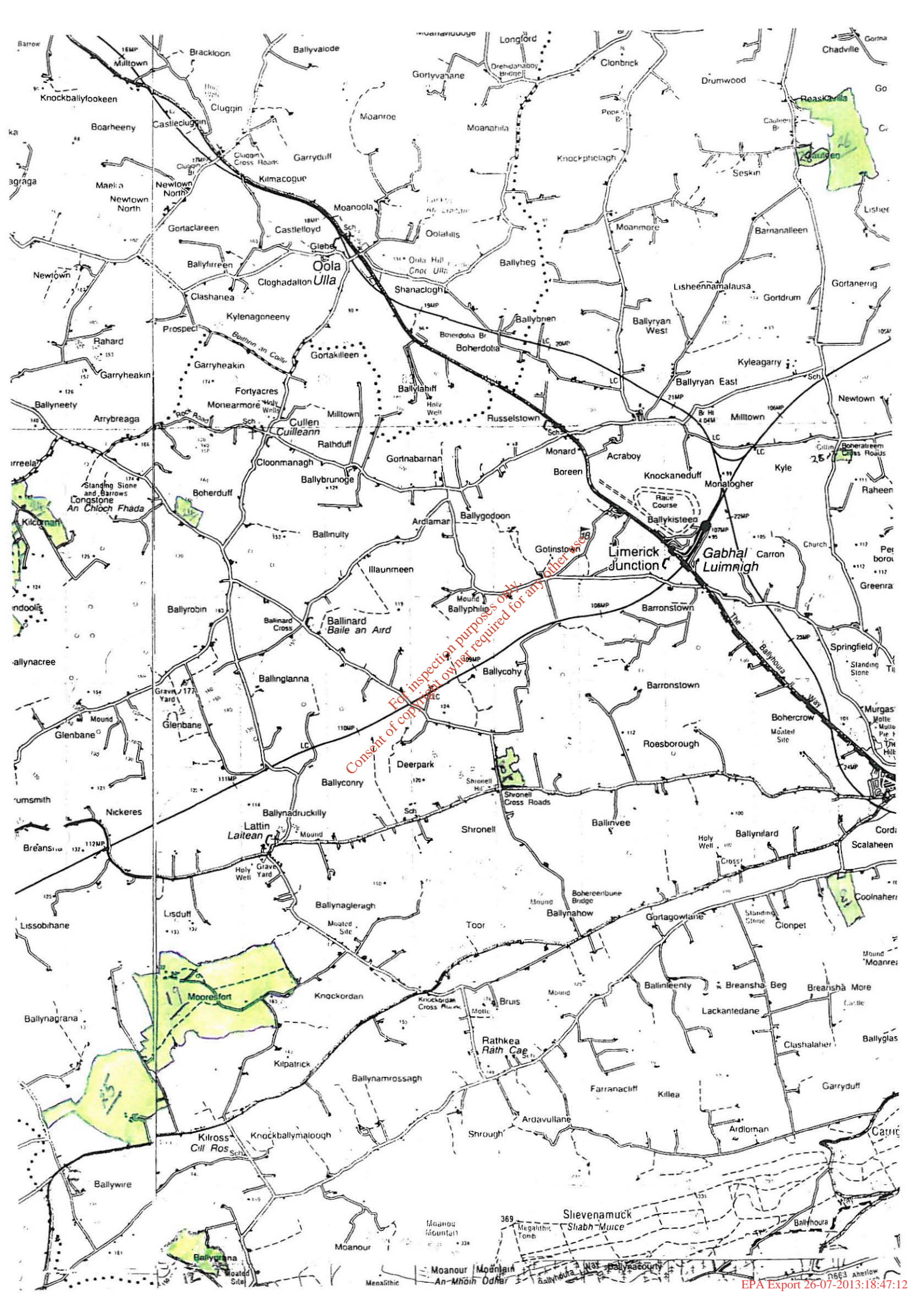
COMPOSITE MAP

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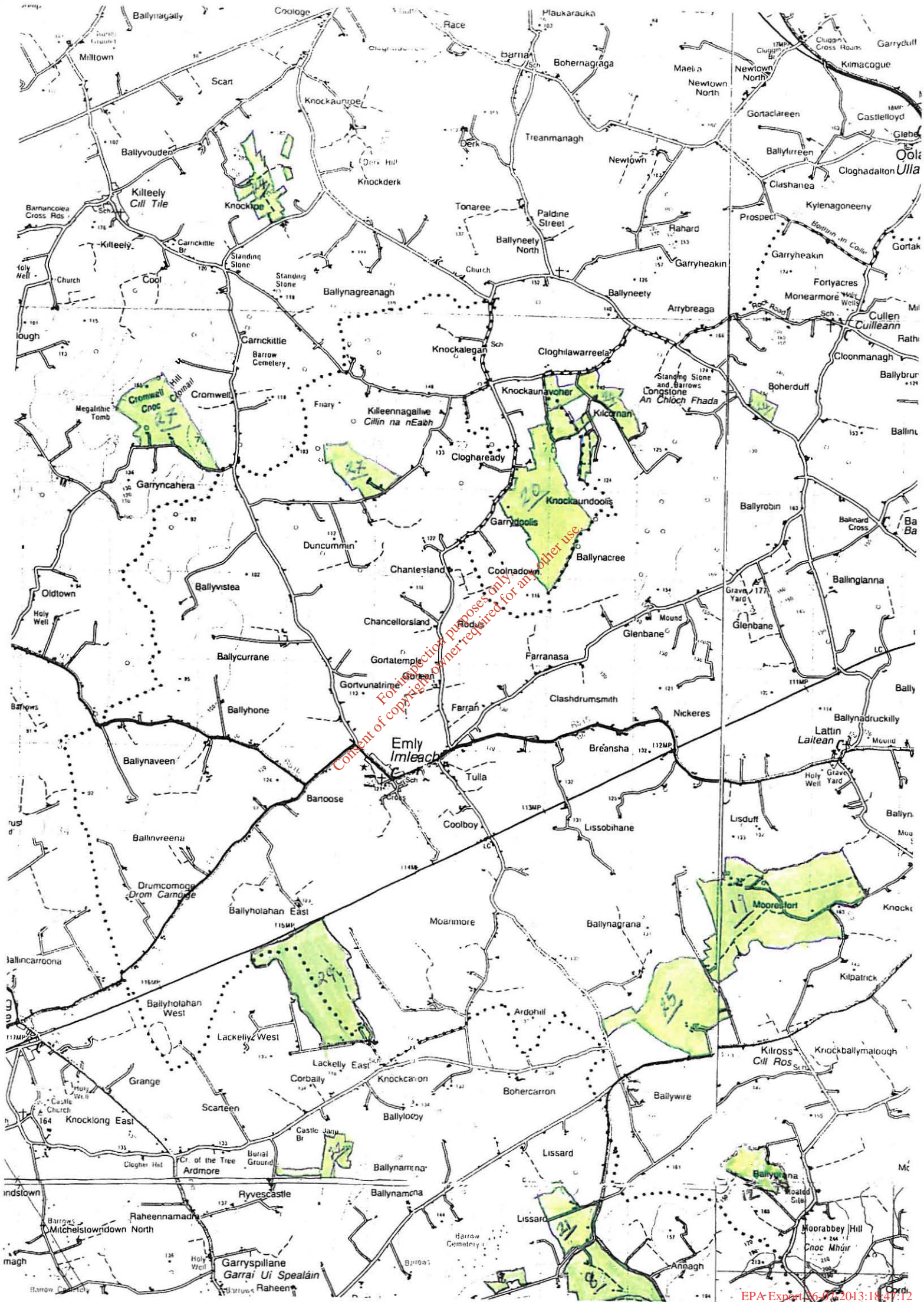


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UNIT LOCATION.



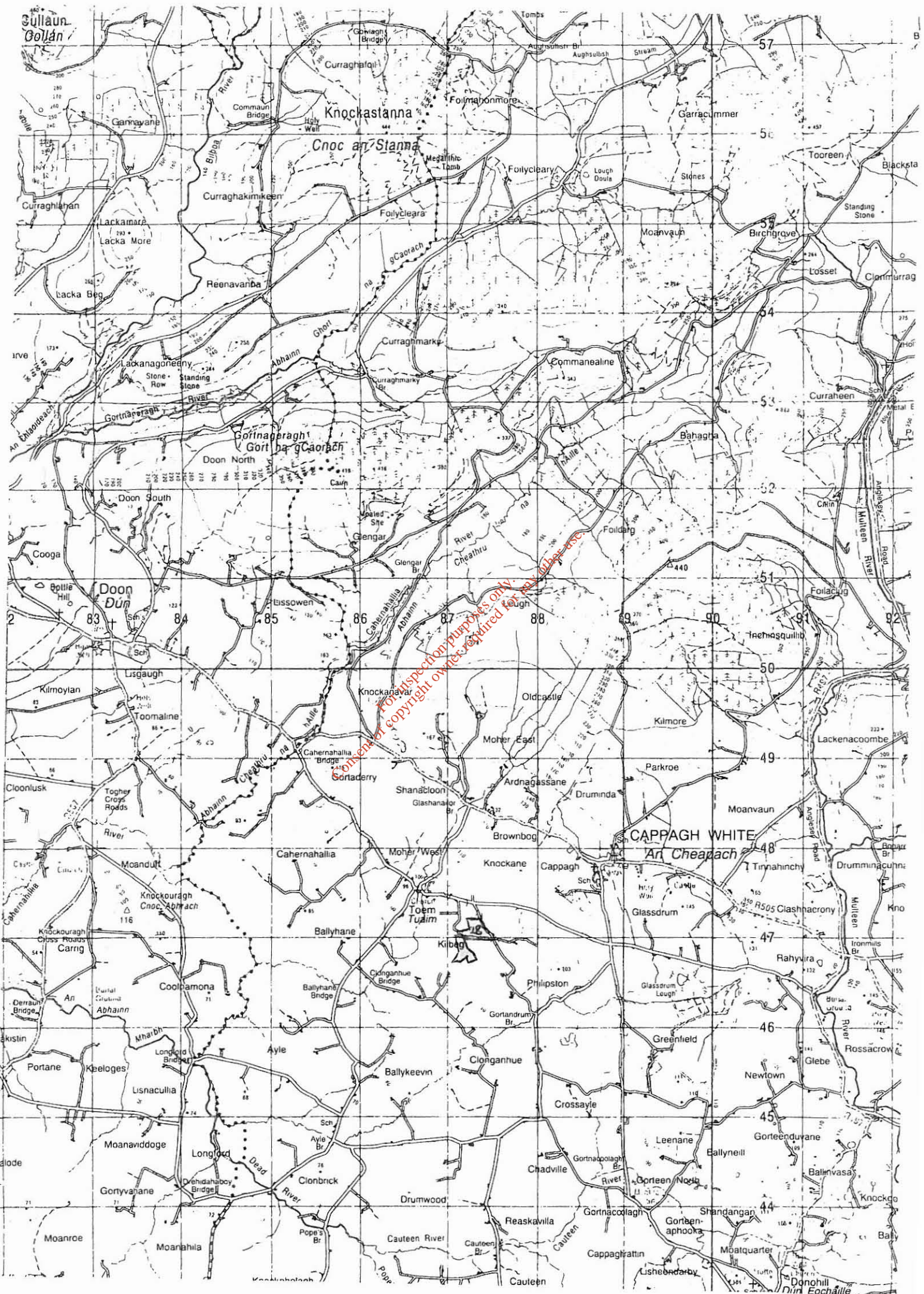
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NMP 2010

ATTACHMENT NO 3

INDIVIDUAL FARM FERTILISER PLANS

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MICHAEL SWEENEY
NUTRIENT RECOVERY TO GENERATE ELECTRICITY LTD
MOORESFORT
LATTIN
CO TIPPERARY

TO WHOM IT MAY CONCERN

I have completed Fertilizer Plans for Farm Codes attached, to recover Pig Manure from Ballyfaskin Enterprises Ltd Pig Farm (IPC License Ref P0000-01), during 2010. These Plans comply with the requirements of the European Communities (Good Agricultural Practice for Protection of Waters) Regulations, S.I. No 101 of 2009.

Summary Information of the customer list of farms, whereupon this pig manure is to be recovered, is attached, and a more detailed report is available on site for inspection by any relevant authority.

In my professional opinion, pig manure may be used to fertilize any of the farms included, and the application of pig manure from the above referenced IPPC Licensed facility, in accordance with the allocations set out, and in a manner that complies with the European Communities (Good Agricultural Practice for Protection of Waters) Regulations S.I. No 101 of 2009, will not cause, and is not likely to cause, significant environmental pollution.

Signed

MICHAEL SWEENEY
TEAGASC/FBA/FMR MGR
MARCH 2010

N.R.G.E. Ltd.
Nutrient Recovery to Generate Electricity Ltd.
Mooresfort, Lattin, Co. Tipperary.
Tel: 062 55385
VAT. No: 6412619V

NRGE LTD
MOORESFORT
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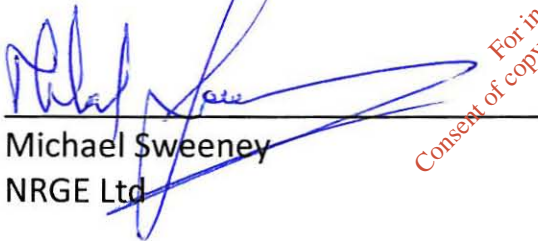
TEL: 062-55385
FAX: 062-55483
EMAIL: m.sweeney@nrge.ie

RE: INDIVIDUAL NMP PLANS FOR CUSTOMER FARMS

TO WHOM IT MAY CONCERN

The individual fertilizer plans (Nutrient Management Plans), are maintained on site for inspection during normal working hours, by any relevant authorities.

Yours Sincerely



Michael Sweeney
NRGE Ltd

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