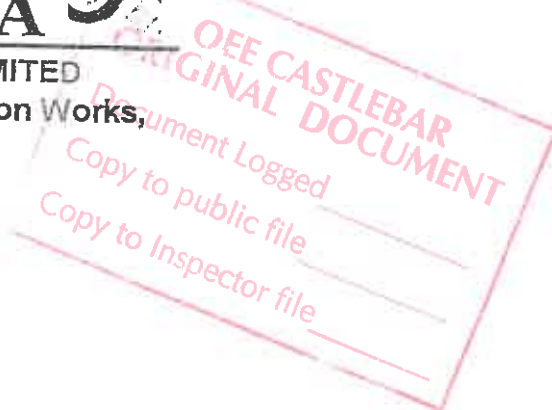




BORD NA MÓNA

BORD NA MÓNA ENERGY LIMITED
Mountdillon Group, C/O Mountdillon Works,
Lanesboro,
Co Longford, Ireland



Annual Environmental Report

March 2006

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1.0 Introduction

1.1 I.P.C. Licence No. 504

1.2 Name and Location of Site

Name Bord na Mona Energy Limited

Full Address Mountdillon Group

C/o Mountdillon Works

Lanesboro

Co Longford

Telephone No. 043 21117 Fax No 043 21259

National Grid Reference No. E204720 N268880

1.3 Brief Description of Activities

Mountdillon group of bogs is situated in Counties Longford Roscommon, and Westmeath.

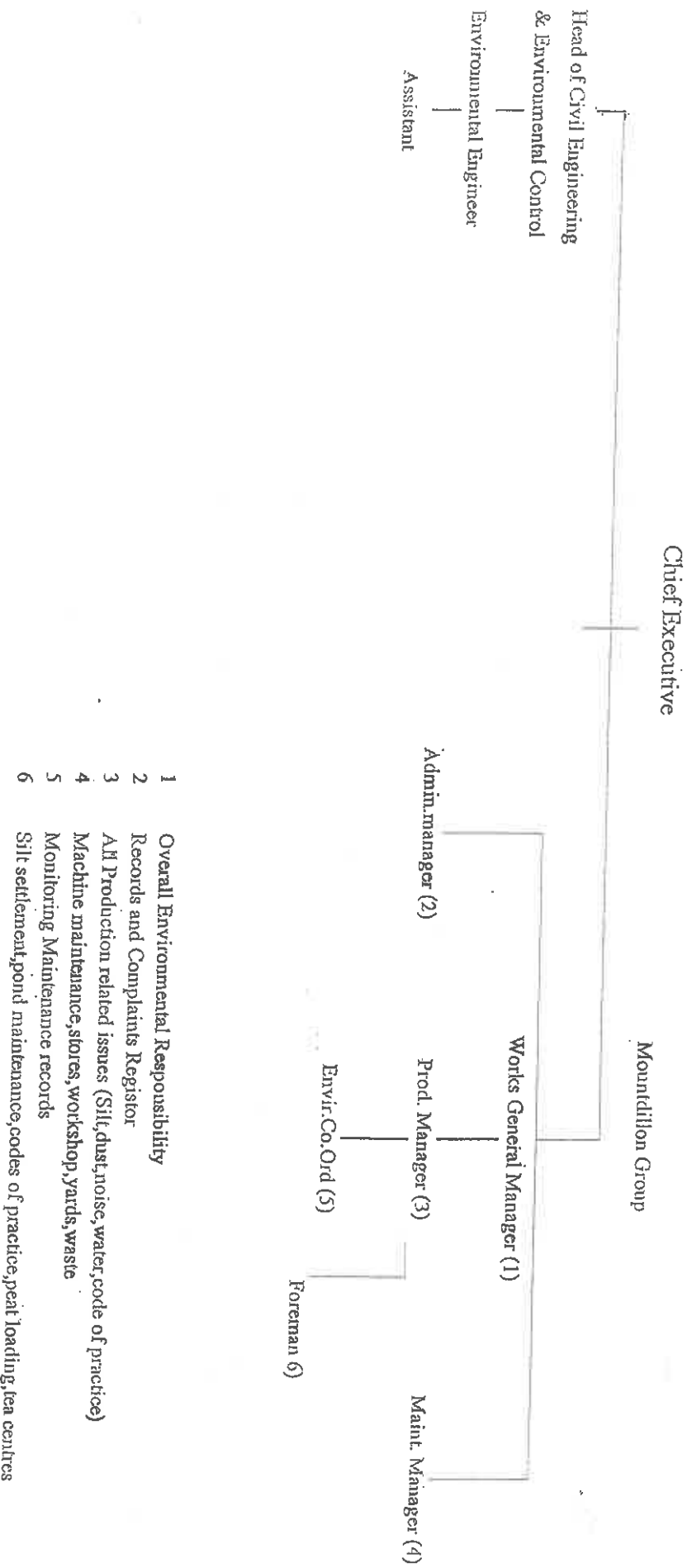
This group of bogs drain into the upper Shannon Catchment. Gross working hectares for Mountdillon is 4,950 and it is a completely milled peat operation.

Our sole customer is the E.S.B. Mountdillon is divided into 10 working areas namely Lough Bannow, Derryadd, Derryarogue, Knappoge, Begnagh, Clooneeny, Derrycolumb, Derryshannoge, Cloontuskert, Cloonshannagh, Derrymoylin, Mt/Dillon, Derrycashel, and Eddera. Cuil na gCun and Milkernagh

1.4 Environmental Management of the Company

Bord Na Mona Energy Limited

Environmental Responsibilities



1.5 Environmental Policy

BORD NA MÓNA

BORD NA MÓNA ENERGY LIMITED
Environmental Policy Statement

Bord Na Mona Energy Limited is a commercial semi-state body with responsibility to develop Ireland's peat resources in the national interest.

Bord Na Mona Energy Limited is committed to gather and make available information on all aspects of its environmental impact and to help improve understanding among the public generally of its role and of the importance of Irish peatlands.

Bord Na Mona Energy Limited recognises the importance of peatland conservation.

Bord Na Mona Energy Limited will leave behind all areas it owns as either an economically or socially integrated resource of high environmental value.

Bord Na Mona Energy Limited seeks to conduct all aspects of its business in an environmentally sensitive manner.

Bord Na Mona Energy Limited will establish an environmental management system specifically addressing the following impacts:

- Discharges to water
- Emissions to atmosphere
- Waste disposal
- Use of natural resources
- Noise, vibration, odour, dust and visual effects
- Natural environmental and eco-system

The environmental management system will be monitored, maintained and continually improved.

A system of regular environmental audits will be put in place.

Bord Na Mona Energy Limited will continue research and development(R&D) into all aspects of its environmental impact

This statement is published and is available at all locations within the section and its contents are brought to the attention of all employees.

2.0 Summary Information

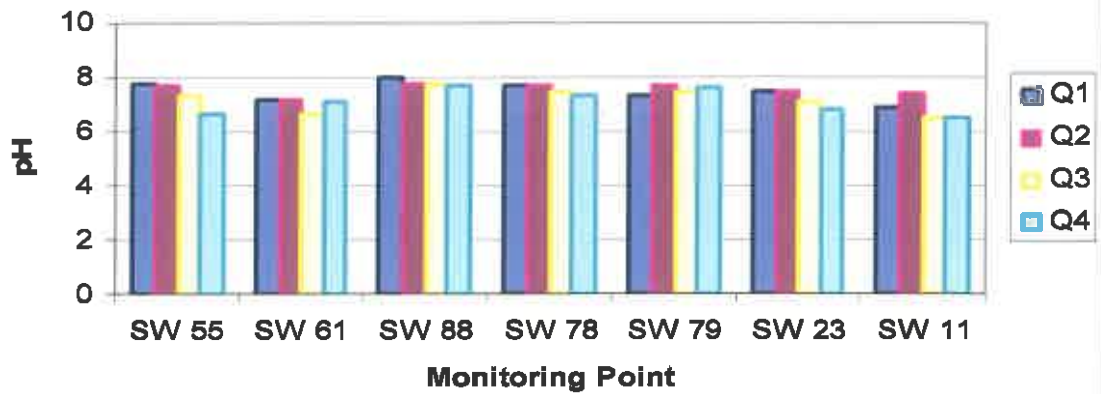
2.1 Emissions to Water Summary

2.1.1 Silt Pond Emissions

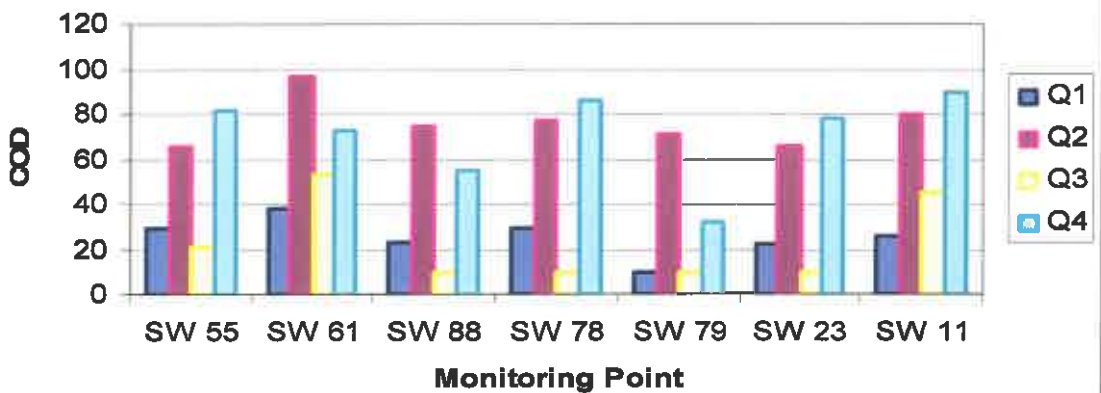
Monitoring and sampling from agreed discharge points are carried out quarterly in the form of grab samples. Samples were taken each quarter from each of the agreed outlets in accordance with the regular sampling programme. During dry months or when the flow is backed up there is no measured flow.

Results for the 2005 season are included on the following pages

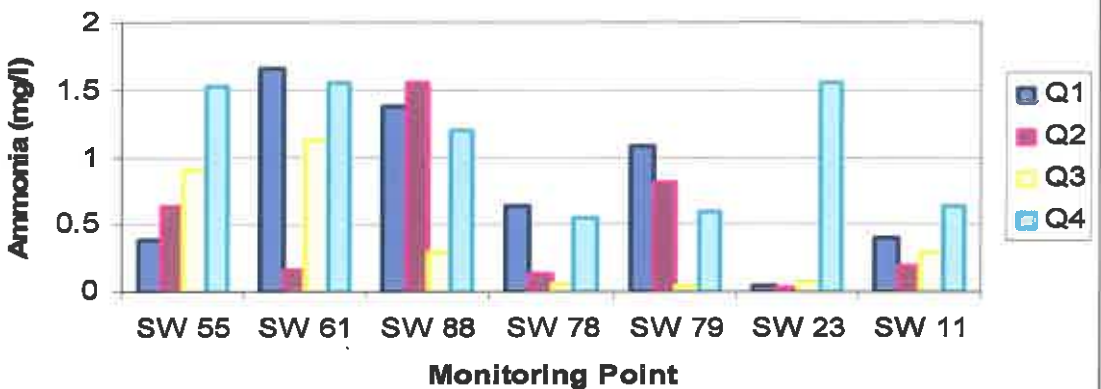
Quarterly Grab Sample 2005 pH (units)



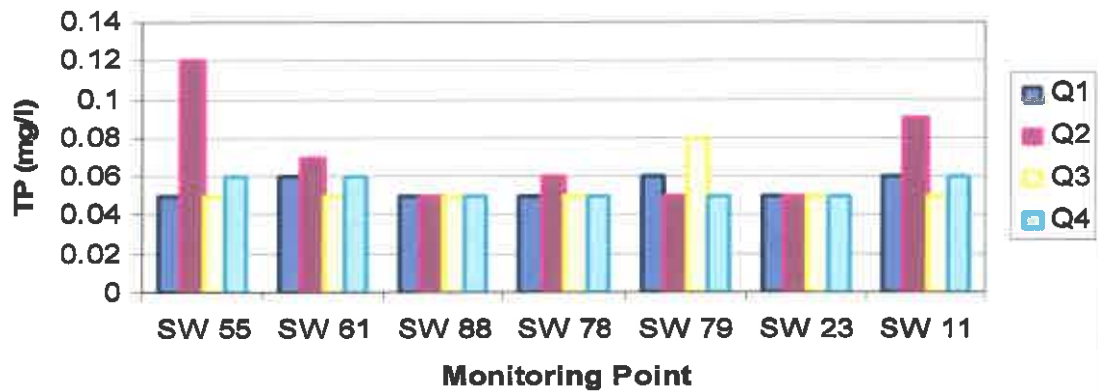
Quarterly Grab Sample 2005 COD (mg/l)



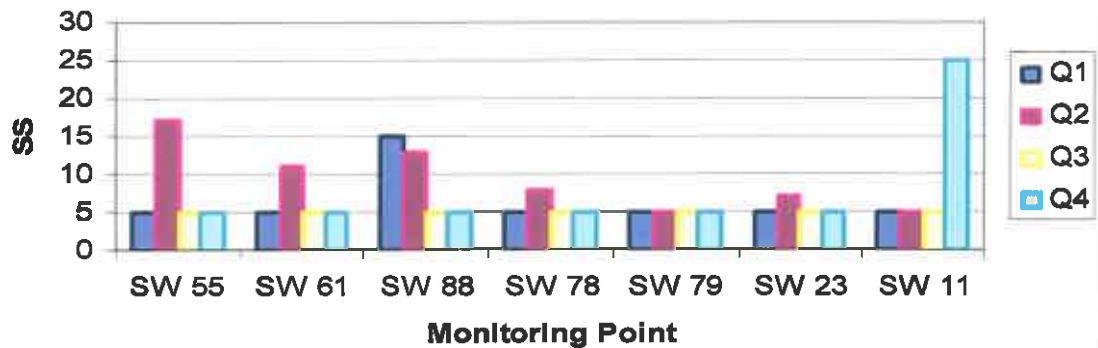
Quarterly Grab Sample 2005 Ammonia as N



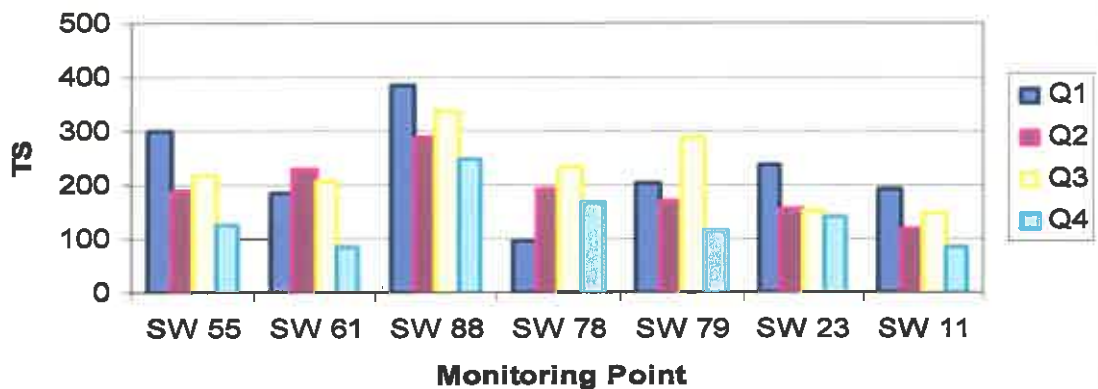
Quarterly Grab Sample 2005 Total Phosphorus



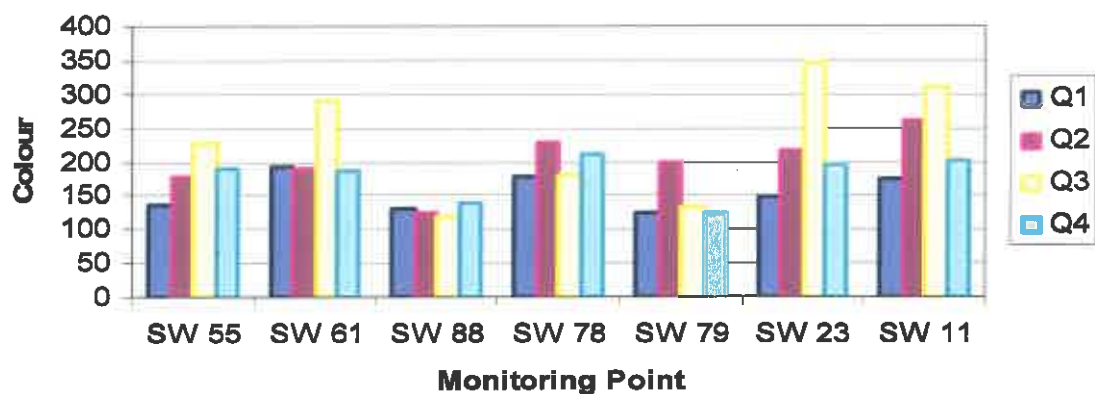
Quarterly Grab Sample 2005 Suspended Solids (mg/l)



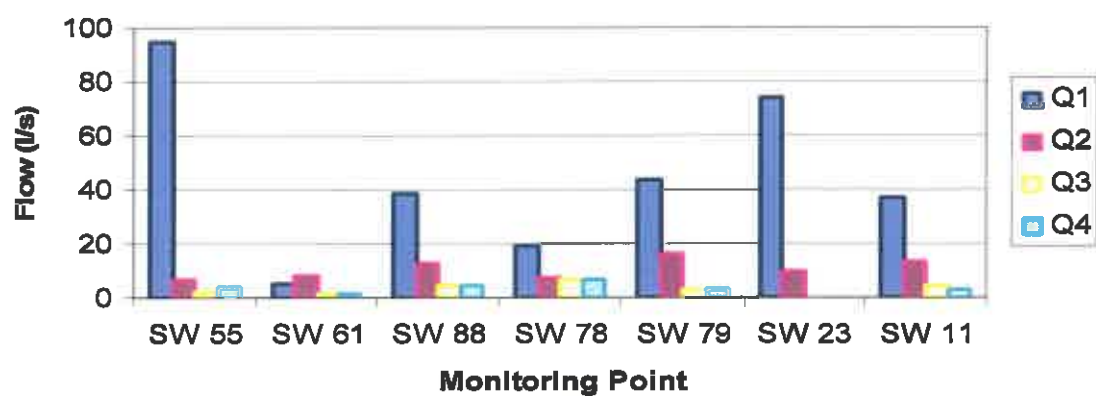
Quarterly Grab Sample 2005 Total Solids (mg/l)



Quarterly Grab Sample 2005 Colour (pt Co Units)



Quarterly Grab Sample 2005 Flow



2.1.2 Yard Discharges

Reporting Period: January - December 2005													
Surface Water Emission pt.	COD (mg/l)												
	January	February	March	April	May	June	July	August	September	October	November	December	Emission Limit Value
SWE-1 w/shop	57	No flow	73	60	42	65	No flow	35	68	82	No flow	33	N/A
SWE-2 w/shop		No flow	66	40	136	61	No flow	49	41	106	No flow	355	"
SWE-1 yard	23	No flow	38	No flow	32	53	No flow		53	180	No flow	51	"
SWE-2 yard	22	No flow	35	No flow	134	59	No flow	23	256	75	No flow	45	"
SWE-1 p/stat *		No flow	No flow	No flow	No flow	No flow	No flow	No flow	No flow	No flow	No flow	No flow	"
SWE-1 (Cuil na Geann)	55	31	25	No flow	72	61	No flow	No flow	52	138	No flow	161	"

All of the yard run-off in the Mountdillon Group have oil interceptors installed at the works. Condition 9.1.8 calls for all surface water discharges to be fitted with an oil-interceptor within 12 mths of the date of licence, results of which are included in the monthly monitoring programme, and reported on quarterly

* No run off due to refuelling area totally roofed

2.1.3

Composite Sampler Report

The Composite Sampler has been operational since May 2001. It has been visited on a weekly basis since, and the samples have been removed and returned to Bord na Mona's Laboratory in accordance to sampling protocol. On the few occasions samples have not been recorded it has been due to one of the following : 1. No Flow 2. Power failure 3. Pond frozen. The Composite sampler has been relocated to Lough Bannow bog silt pond no.LW4 (SW76) IN june 2003 and the agency notified

The following are the parameters to be monitored .

Parameter	Monitoring Frequency	Location of analysis
pH (pH units)	Weekly	Laboratory
Flow (l/s)	Daily	On-site
Suspended Solids (mg/l)	Daily	Laboratory
Total Solids (mg/l)	Daily	Laboratory
Total Phosphorus as p (mg/l)	Weekly	Laboratory
Ammonia as N (mg/l)	Weekly	Laboratory
Colour (hazen units)	Weekly	Laboratory
COD (mg/l)	Weekly	Laboratory

See results in appendix 1

2.1.4 Non compliance

DATE	Non - Compliance	Cause	Corrective – Action
21 OCT 2005	1 Non Compliance	No obvious cause	Personnel instructed during subsequent training sessions

Samples for 2005 show a compliance level of 99.5% based on the number of samples taken during the year. This site is pumped drainage and this explains the intermittent sampling i.e. no samples due to no flow, other than this the composite sampler is operating well at this site and will continue to do so for 2006.

2.2 Emissions to Air

2.2.1 Dust Monitoring Locations Programme

Emission Point	DATE	Parameter	Average Emission (mg/m ² /day)	Emission Limit Value
DM-01	16/05/05 – 16/06/05	Dust	44	(350mg/m ² /Day)
DM-02	16/05/05 – 16/06/05	Dust	22	(350mg/m ² /Day)

Emission Point	DATE	Parameter	Average Emission (mg/m ² /day)	Emission Limit Value
DM-01	16/06/05 – 18/07/05	Dust	59	(350mg/m ² /Day)
DM-02	16/06/05 – 18/07/05	Dust	32	(350mg/m ² /Day)

Emission Point	DATE	Parameter	Average Emission (mg/m ² /day)	Emission Limit Value
DM-01	18/07/05 – 18/08/05	Dust	39	(350mg/m ² /Day)
DM-02	18/07/05 – 24/08/05	Dust	177	(350mg/m ² /Day)

2.2.2 Non compliance

DATE	Non - Compliance Cause	Corrective – Action
	NONE	

2.3.2 Non-Hazardous Waste

BORD NA MÓNA

BORD NA MÓNA ENERGY LIMITED

Waste Management Record (NON Hazardous)

Group : BORD NA MONA

IPC Licence no. : 504

Works : MOUNTDILLON

WASTE DESCRIPTION	EMC CODE	TONNES	NAME OF CONTRACTOR	NAME OF PERSON ULTIMATELY RESPONSIBLE	DESTINATION	DATE
Scrap Metal	17.04.07	179.4	Hammond Lane	Hammond Lane	Athlone	Jan-Dec 05
General Waste	20.01.00	15.06	Mulleadys	Mulleadys	Ballinasloe Landfill	Jan-Dec 05
Silt	01.01.02	1137 *	Bord na Mona	Bord na Mona	On site	Jan-Dec 05
Polythene	02.01.02	546	Banner Recycling	Banner Recycling	Kilrush Co. Clare	Jan-Dec 05

Tonnes dry weight

2.4 Energy and Water Consumption

2.4.1 Energy Consumption

Fuel	Megawatt / HRS	Volume cu/mts	Tonnes
JAN – Dec 2005			
Diesel / Heating Oil	16369.33	1671.36	
Petrol	26.98	2.98	
Electricity	1703		
Peat Biquettes	395		79

2.4.2

The only water used in Mountdillon is in teacentres, workshops and office's and is negligible

2.5 Environmental Incidents and Complaints

2.5.1 Incidents

There were no incidents reported in Mountdillon in 2005

2.5.2 Complaints

Environmental Complaints	Number of complaints
Complaints received	4
Complaints requiring corrective action	
Categories of complaint	
Odour	
Noise	
Water	
Air	4
Procedural	
Miscellaneous	

These have been reported to the E.P.A.

3.0 Management of the Activity

3.1 Environmental Management Programme Report 2005

Environmental Management Programme Report 2005	
Project	
Project 1. Reduction of fugitive dust emissions	<p>Training Training in Mountdillon was provided for all personnel during 2005. This was in the form of a Cleaner Production Video, This video was completed in May 2004, and covers all aspects of the I.P.C. licence, and in particular, cleaner production methods, good and bad practice, pollution prevention and codes of practice. A quiz on the contents of the video and items relating to the target audience, accompanies the 1 hour training session.</p> <p>An internal audit of all I.P.C. licensed sites also occurred during December of 2005</p> <p>Headland Peat Mountdillon Works have two Headland Peat Harvesters, one mechanical bin and one haku type with three haku trailers. Mountdillon collected 11,000 tonnes of headland peat in 2005, helping to reduce incidents of dust generation</p> <p>Hydraulic harrows Hydraulic Harrows worked well in Mountdillon D.S.I.'s in 2005, There are two working in Edera Bog, one in Derryadd Bog and one in Cloontuskert Bog. They have proved successful in helping to reduce dust generation on Headlands</p>
Project 2. Minimisation of Suspended Solids	<p>This project is ongoing and is primarily one of training. The Cleaner Production Video examines bad production methods that can lead to waste peat entering the drainage system. The video highlights these practices and demonstrates improvements that can be achieved through better driving and operation, 99% of personnel have received this training during 2005</p>
Project 3. Effective spill/leak management of mobile fuelling tanks	<p>Refuelling locations have been identified and relevant personnel notified, operating procedures have been put in place and all refuelling operatives have received training, Oil spill kits have been put in place and personnel trained in their use</p>
Project 4. Re-use of silt pond waste	<p>This Project will be kept active should any opportunities for re-using silt pond waste arise</p>

<p>Project 5. Collection, storage and re-use of polythene.</p>	<p>Polythene for recycling has been collected from around the production areas, and stockpiled at a hard surface for baling/collection. A new mechanical method of stripping piles and rolling the polythene on a spool was developed. This will produce a more compact and cleaner method of removing and transporting the polythene to a storage area. Mountdillon have 5 in operation. There were 546 tonnes of polythene recycled in Mountdillon during 2005</p>
<p>Project 6. Condition 2.2.2.(v) Work implemented for dust sensitive locations</p>	<p>ALL D.S.L.'s have been identified within Mountdillon. A programme of tree planting was undertaken in 2005 in Edera Bog, a total of 3700 trees were planted on a raised area. Production in this area was curtailed to 50% of potential. The Harvester operating in this area has had its jib and cowl covered to reduce dust blow, two hydraulic harrows have been introduced see Project 1, two Headland Harvesters have been operating successfully to reduce the collection of peat along Headlands. A water tanker has been employed to dampen down Headlands. There were four complaints received in this area in 2005. A Tree planting programme was undertaken in all other D.S.L.'s in 2004 no complaints were received from these areas in 2005. We will continue to monitor the bergethoff dust gauge's for 2006. The location of the tea centre has been identified as contributing to the dust situation in Edera Bog. Therefore it has been moved to a more suitable location away from the residential end of the bog.</p>

3.2 Environmental Management Programme Proposal for 2006

Environmental Management Programme Proposal for 2006	
P	
Project 1. Reduction of fugitive dust emissions.	<p>Training The Production Manager and area bog Foreman will visit each bog area to talk to personnel about cleaner production methods in 2006. Training for all personnel was carried out in 2005. All new seasonal staff will receive training using the cleaner production video.</p> <p>Hydraulic Harrows There is no plan to increase the number of hydraulic harrows in the Mountdillon area for 2006</p> <p>Headland Peat Collection It is proposed to increase the number of Headland Harvesters in the Mountdillon area by 1, this will bring the number to 3 for 2006. This extra Headland Harvester will operate west of the Shannon on the Roscommon Bogs and its effectiveness will be reported on in next year's A.E. R.</p>
Project 2. Minimisation of Suspended Solids	<p>Inspections during 2005 primarily targeted teacentres, oil stores, workshops etc. It is proposed to carry out inspections at a number of production locations during 2006, looking at cleaner production, dust sensitive areas, pond maintenance etc. The results of these inspections will be reported to the General Manager and any corrective actions will be maintained on file</p>
Project 3. Effective spill/leak management of mobile fuelling tanks	<p>These areas will also be inspected as part of the proposed inspections under Project 6 above. Compliance with Conditions 9.1.1 to 9.1.14 will be checked and any improvements and corrective actions will be documented and maintained on file.</p>
Project 4. Re-use of silt pond waste	<p>This Project will be kept active should any opportunities for reusing silt pond waste arise</p>
Project 5. Collection, storage and re-use of polythene.	<p>An invitation to tender for the recycling of BNM'S polythene was sent to a number of interested companies in 2005. Six companies expressed an interest, and are currently been assessed as to environmental compliance with permitting regulations, collection methods, waste records transfers etc. It is proposed to select one or two of these companies to contract the recycling of the BNM Polythene in 2006</p>
Project 6. Condition 2.2.2 (v) Provision of measures to protect dust sensitive areas	<p>There are no plans to plant any shelter belts during 2006. The restricted area for production during adverse weather conditions will be increased for 2006 in the Edera bog area this will represent 50% of production acreage</p>

3.2 Environmental Expenditure

Expenditure Related to the Operation of the Mountdillon IPC Licence During the Period JAN 2005 – DEC 2005	
Description	Cost - Euros
Capital Costs	
Plant	225,036
Labour	173,533
Materials	31,533
Overheads (ESB, Phones, Consumables)	6,500
External Environmental Consultancy	
EPA Fees	7,983
Monitoring Cost	10,107.76
Total	454,602.76

4.0 Licence Specific Reports

4.1 Surface Water Discharge Monitoring Location Programme Review

The surface water discharge monitoring location programme has been submitted and accepted by the Agency in July 2000. Three sampling locations have been changed in 2004 and the Agency notified. Monitoring will be carried out at these locations in the forthcoming year.

During 2005, sampling at these sites was carried out successfully. There were no non-compliances at the 7 locations for 2005.

See results in 2.1.1

4.2 Bunding Programme

All yards and depots are now fully bunded

4.3 Boiler Combustion Efficiency

Boiler at the main workshop has been tested by Boiler Services Allenstown Broadway Co Wexford on 30/11/05 with efficiency levels of 88.6% to 90.3%

4.4 Resource Consumption Summary

There was a total of 845,980 tonnes of peat produced in Mountdillon and Cuil na Gcun and 657,952 tonnes of peat sold to Lanesboro Power station during the reporting period Jan – Dec 05

4.5 Report on de – silting Programme

De-silting Report**JAN – Dec****2005**

Area Cleaned	No of Cleanings			
	0	1	2	3
1			100%	
2			100%	
3			100%	
4			100%	
5			100%	
6			100%	
7			100%	
8			100%	
9			100%	
10			100%	

1 = Lough Bannow 2 = Derryadd 3 = D/aroge Cloonbony 4 = Knappoge 5 = Begnagh Clooneeny 6 = D/colum 7 = D/shannoge 8 = Cloontuskert Cloonadra 9 = Cloonshannagh D/moylin 10 = Mt/dillon D/cashel

See Appendix ii

4.6 Bog Development and Operational Programme

There are two bogs under development in the Mountdillon group of bogs namely Milkernagh and Cuil na gCun. Milkernagh bog produced 23779 tonnes of milled peat in the year 2005, production will continue for the year 2006. This bog is covered by adequately sized silt ponds which are cleaned twice a year. These silt ponds are included in the quarterly grab sampling by the E.P.A.

Development will continue in Cuil na gCun bog for the year 2006. Adequately sized silt ponds have been constructed here.

4.7 Bog Rehabilitation Progress report

There has been no Bog Rehabilitation carried out in Mountdillon Bogs during 2005

4.8 Silt pond upgrade programme.

Stage 1 of Silt Pond upgrade programme (100% effluent treatment) – **Completed**

Stage 2 (100% design standard)

Pipes have been installed in order to increase the control over the discharges - **Completed**

Stage 3 (Pipe and weir installation)

All silt ponds in Mountdillon area have been fitted with pipes on inlet and outlet.

A programme of installing weirs or sluice gates has been completed.

To date 11 weirs or sluice gates have been fitted on pond numbers DS3 (SW79) DS5 (SW83) DS6 (SW84) BH5 (SW55) DD1 (SW68) DC10 (SW93) DC5(SW91) LB3(SW95) MN2(SW19) GN4(SW23) CH1(SW6).

5.0 Summary

Expenditure, non-compliances, future work (new machines) etc

With regard to environmental compliance at the Mountdillon Group of Bogs, there were no exceedences in the quarterly grab sampling of the ponds in the Surface Water Discharge Monitoring Location Programme.

There was one non compliance see 2.1.4 in relation to the Composite Sampler during the operation period of Jan to the end of December. Mountdillon received four complaint in relation to dust monitoring these have been reported to the Agency

Efforts will continue to minimise the impact of our operations on the local area. To this end it is proposed to extend the operation of our Headland Harvesting operations.

The staff awareness through training and involvement in the operation of the licence has also improved immensely. A full programme of training and awareness has been conducted at the works and has targeted all personnel ie. office, workshop, transport and production.

Emphasis has been increased in the area of Machine driving and use of technology in the effort to reduce dust emissions

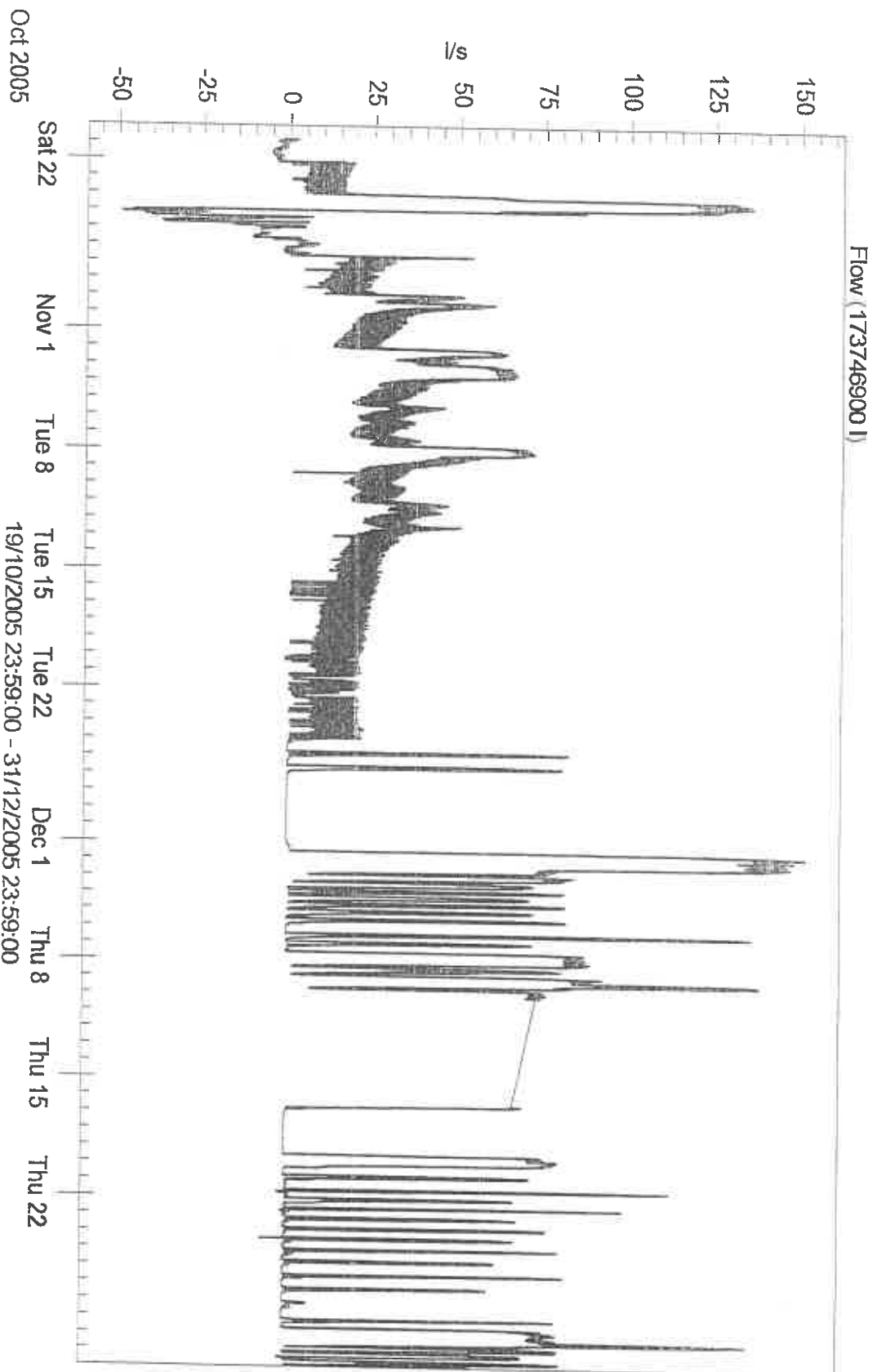
Bord na Mona Energy Ltd are represented on the Management Group of both the Shannon River and Eastern River Basin District Management Systems, set up under the Water Framework Directive, and on the Steering Group of the Catchment Management on the River Barrow.

Bord na Mona Energy Ltd would like to take this opportunity to advise the Environmental Protection Agency of its continued commitment to improving its environmental performance by adopting cleaner production methods and improving its environmental protection measures.

Appendix (i)

Mountdillon Composite Flow Rates 2005

Flowlink 4 for Windows



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- 1

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month	Temp	pH	COD mg/l	Ammonia as N mg/l	Total Phosphorus mg/l	Suspended Solids mg/l	Total Solids mg/l	Colour Pt Co units	Flow Daily (litres)	COD Kg/Day	Ammonia as Kg/Day	Daily Totals Total Phosphorus Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
January 2005														
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	9	134	-	-	-	-	-	-	-
7	-	-	-	-	-	26	210	-	-	-	-	-	-	-
8	-	-	-	-	-	22	144	-	-	-	-	-	-	-
9	-	-	-	-	-	33	172	-	-	-	-	-	-	-
10	-	-	-	-	-	6	318	-	-	-	-	-	-	-
11	7.5	55	0.02	0.05	6	220	129	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	15	236	-	-	-	-	-	-	-
14	-	-	-	-	-	7	286	-	-	-	-	-	-	-
15	-	-	-	-	-	7	217	-	-	-	-	-	-	-
16	-	-	-	-	-	7	244	-	-	-	-	-	-	-
17	-	-	-	-	-	13	270	-	-	-	-	-	-	-
18	-	-	-	-	-	9	260	-	-	-	-	-	-	-
19	7.9	58	0.78	0.05	8	238	133	-	-	-	-	-	-	-
20	-	-	-	-	-	5	84	-	-	-	-	-	-	-
21	-	-	-	-	-	5	64	-	-	-	-	-	-	-
22	-	-	-	-	-	11	158	-	-	-	-	-	-	-
23	-	-	-	-	-	5	198	-	-	-	-	-	-	-
24	-	-	-	-	-	5	206	-	-	-	-	-	-	-
25	-	-	-	-	-	5	210	-	-	-	-	-	-	-
26	7.8	44	0.82	0.05	5	337	103	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* All flow data up to November 2005 were lost due to a fault in the flow meter.

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford

Composite Sampler Results

Composite Sample Results													
Month	Parameters							Daily Totals					
	pH	COD mg/l	Ammonia a N mg/l	Total Phosphoru mg/l	Suspended Solids mg/l	Total Solids mg/l	Colour Pt Co units	Flow Daily Total (litres)	COD Kg/Day	Ammonia a Kg/Day	Total phosphoru Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
February 2005													
1	-	-	-	-	-	-	-	*					
2	7.7	53	1.12	0.05	40	312	84	*					
3								*					
4	-	-	-	-	9	338	-	*					
5					6	306		*					
6	-	-	-	-	34	334	-	*					
7	-	-	-	-			-	*					
8	-	-	-	-			-	*					
9	7.8	58	1.04	0.05	5	314	90	*					
10					5	244		*					
11					5	50		*					
12	-	-	-	-	5	50	-	*					
13	-	-	-	-			-	*					
14	-	-	-	-	5	138	-	*					
15	-	-	-	-	19	326	-	*					
16	8	64	1.04	0.05	11	355	72	*					
17	-	-	-	-			-	*					
18	-	-	-	-	-	-	-	*					
19	-	-	-	-			-	*					
20	-	-	-	-			-	*					
21								*					
22	-	-	-	-			-	*					
23	-	-	-	-	-	-	-	*					
24	-	-	-	-	-	-	-	*					
25								*					
26	-	-	-	-	-	-	-	*					
27	-	-	-	-	5	334	-	*					
28	-	-	-	-	5	324	-	*					
29	-	-	-	-	7	308	-	*					
30	-	-	-	-	5	210	-	*					
31	-	-	-	-	7	326	-	*					

* All flow data up to November 2005 was lost due to a technical fault in the storage of the data.

Bord Na Mona Energy Ltd, Mount Dillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month	H	COD mg/l	Ammonia as N mg/l	Parameter Total Phosphorus mg/l	Suspended Solids mg/l	Total Solids mg/l	Colour Pt Co units	Flow Daily total (litres)	COD Kg/Day	Ammonia as Kg/Day	Daily Totals Total Phosphorus Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
March 2003													
1	-	-	-	-	5	336	-						
2	8.2	31	0.02	0.05	5	310	78						
3					5	350							
4	-	-	-	-	5	359	-						
5													
6	-	-	-	-	5	328	-						
7	-	-	-	-	5	99	-						
8	-	-	-	-			-						
9	7.8	79	0.06	0.05	5	444	107						
10													
11	-	-	-	-			-						
12	-	-	-	-			-						
13													
14	-	-	-	-			-						
15	-	-	-	-	-	-	-						
16	-	-	-	-	-	-	-						
17	-	-	-	-	-	-	-						
18													
19	-	-	-	-	-	-	-						
20	-	-	-	-	5	222	-						
21	-	-	-	-	6	318	-						
22	-	-	-	-	22	294	-						
23	7.8	41	0.56	0.07	59	340	99						
24	-	-	-	-	-	-	-						
25	-	-	-	-	-	-	-						
26	-	-	-	-	-	-	-						
27	-	-	-	-	-	-	-						
28	-	-	-	-	-	-	-						
29	-	-	-	-	-	-	-						
30	-	-	-	-	-	-	-						
31													

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford

Month	April 2005	H	Parameters						Daily Totals					
			COD mg/l	Ammonia a N mg/l	Total phosphoru mg/l	Suspended Solids mg/l	Total Solids mg/l	Colour Pt Co units	Flow Daily (total litres)	COD Kg/Day	Ammonia a Kg/Day	Total Phosphorus Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
1		-	-	-	-	-	-	-	*					
2		-	-	-	-	-	-	-	*					
3		-	-	-	-	-	-	-	*					
4		-	-	-	-	-	-	-	*					
5		-	-	-	-	-	-	-	*					
6		-	-	-	-	-	-	-	*					
7							5	291	*					
8		-	-	-	-	-	5	292	*					
9		-	-	-	-	-	5	264	*					
10		-	-	-	-	-	5	334	*					
11		-	-	-	-	-	24	330	*					
12		-	-	-	-	-	5	242	*					
13		8.1	50	0.02	0.07	5	294	50	*					
14						13	194		*					
15		-	-	-	-	7	208	-	*					
16		-	-	-	-	5	220	-	*					
17		-	-	-	-	5	240	-	*					
18		-	-	-	-	10	204	-	*					
19		-	-	-	-	33	220	-	*					
20		7.8	59	0.76	0.05	47	144	104	*					
21		-	-	-	-	35	396	-	*					
22		-	-	-	-	5	410	-	*					
23		-	-	-	-	8	378	-	*					
24		-	-	-	-	14	379	-	*					
25		-	-	-	-	5	392	-	*					
26		-	-	-	-	6	412	-	*					
27		8	41	0.71	0.05	12	396	87	*					
28		-	-	-	-	5	258	-	*					
29		-	-	-	-	5	369	-	*					
30		-	-	-	-	5	480	-	*					
31		-	-	-	-	-	-	-	*					

*. All flow data up to November 2005 was lost due to a technical fault in the storage of the data.

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month May 2005	H.	Parameters					Colour Pt Co units	Flow Daily Total (litres)	Daily Totals						
		COD mg/l	Ammonia N mg/l	Total Phosphorus mg/l	Suspended Solids mg/l	Total Solids mg/l			COD Kg/Day	Ammonia N Kg/Day	Total Phosphorus Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day		
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	7.9	76	0.21	0.05	5	464	127	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	7.6	75	0.06	0.05	5	450	118	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	5	200	-	-	-	-	-	-	-	-	-
26	7.6	67	0.44	0.05	10	261	176	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	5	290	-	-	-	-	-	-	-	-	-
30	-	-	-	-	5	261	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All flow data up to November 2005 was lost due to a technical fault.

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month	Parameters										Daily Totals		
	pH	COD mg/l	Ammonia N mg/l	Total Phosphorus mg/l	Suspended Solids mg/l	Total Solids mg/l	Colour Pt-Co units	Flow Daily (litres)	COD Kg/Day	Ammonia N Kg/Day	Total Phosphorus Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
June 2005													
1	8	55	0.79	0.05	5	238	121	*					
2	-	-	-	-	-	-	-	*					
3								*					
4								*					
5	-	-	-	-	-	-	-	*					
6	-	-	-	-	-	-	-	*					
7	-	-	-	-	-	-	-	*					
8	-	-	-	-	-	-	-	*					
9	7.6	40	1.1	0.05	5	312	81	*					
10	-	-	-	-	5	342	-	*					
11					5	334		*					
12	-	-	-	-	5	334	-	*					
13	-	-	-	-	5	352	-	*					
14	-	-	-	-	5	352	-	*					
15	8.3	52	0.61	0.05	5	340	77	*					
16	-	-	-	-	5	344	-	*					
17	-	-	-	-	-	-	-	*					
18	-	-	-	-	5	352	-	*					
19	-	-	-	-	5	352	-	*					
20	-	-	-	-	-	-	-	*					
21	-	-	-	-	-	-	-	*					
22	7.9	77	0.03	0.05	5	509	152	*					
23	-	-	-	-	-	-	-	*					
24								*					
25	-	-	-	-	-	-	-	*					
26	-	-	-	-	-	-	-	*					
27	-	-	-	-	-	-	-	*					
28	-	-	-	-	-	-	-	*					
29	7.9	80	0.06	0.07	5	450	143	*					
30	-	-	-	-	-	-	-	*					
31	-	-	-	-	-	-	-	*					

All flow data up to November 2005 was lost due to a technical fault in the storage of the data

Bord Na Mona Energy Ltd, Mountlillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month	pH	Parameters				Colour Pt Co units	Flow Dail total (litres)	COD Kg/Day	Ammonia a Kg/Day	Dail Totals			
		COD mg/l	Ammonia a N.mg/l	Total phosphoru mg/l	Suspended Solids mg/l					Total Solids mg/l	Total phosphoru Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
July 2005													
1													
2					22	334							
3	-	-	-	-	5	304	-						
4	-	-	-	-			-						
5	-	-	-	-	5	330	-						
6	-	-	-	-			-						
7	-	-	-	-	67	308	-						
8	8.3	43	0.12	0.05	5	286	88						
9													
10	-	-	-	-			-						
11	-	-	-	-			-						
12	-	-	-	-			-						
13	-	-	-	-			-						
14	7.7	70	0.94	0.05	5	352	94						
15													
16													
17	-	-	-	-			-						
18	-	-	-	-			-						
19	-	-	-	-			-						
20	8.4	58	0.62	0.05	5	312	70						
21	-	-	-	-			-						
22													
23													
24	-	-	-	-			-						
25	-	-	-	-	5	354	-						
26	-	-	-	-	5	358	-						
27	-	-	-	-	5	390	-						
28	7.8	26	1.83	0.05	5	376	75						
29	-	-	-	-			-						
30													
31	-	-	-	-			-						

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month August 2005	H	Parameters					Flow Daily Total (litres)	Daily Totals				
		COD mg/l	Ammonia N mg/l	Total Phosphorus mg/l	Suspended Solids mg/l	Total Solids mg/l		Couleur Pt Co units	COD Kg/Day	Ammonia Kg/Day	Total Phosphorus Kg/Day	Suspended Solids Kg/Day
1	-	-	-	-	-	-	*					
2	-	-	-	-	-	-	*					
3	-	-	-	-	-	-	*					
4	8.7	28	0.04	0.05	5	350	61	*				
5	-	-	-	-	5	-	-	*				
					5	324		*				
7	-	-	-	-	5	314		*				
8	-	-	-	-	5	323		*				
9	-	-	-	-	5	314		*				
10					5	324		*				
11	-	-	-	-	5	314		*				
12	-	-	-	-	5	302		*				
13					5	292		*				
14	-	-	-	-	9	326		*				
15	-	-	-	-	5	326	-	*				
16	-	-	-	-	15	406	-	*				
17	7.9	10	1.42	0.06	5	342	66	*				
18								*				
19	-	-	-	-	5	305	-	*				
20					5	286		*				
21	-	-	-	-			-	*				
22	-	-	-	-			-	*				
23	-	-	-	-			-	*				
24	8.4	46	0.58	0.05	6	322	82	*				
25					5	326		*				
26	-	-	-	-			-	*				
27								*				
28	-	-	-	-			-	*				
29	-	-	-	-	5	290	-	*				
30	-	-	-	-	5	331	-	*				
31	8.3	33	0.18	0.05	16	328	90	*				

* All flow data up to November 2005 was lost due to a technical fault in the storage of the data.

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month	Parameters							Daily Totals					
September 2005	pH	COD mg/l	Ammonia N mg/l	Total phosphorus mg/l	Suspended Solids mg/l	Total Solids mg/l	Colour Pt Co units	Flow Daily (litres)	COD Kg/Day	Ammonia Kg/Day	Total Phosphorus Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
1					24	304		*					
2	-	-	-	-	11	320	-	*					
3	-	-	-	-	15	322	-	*					
4	-	-	-	-	IS	362	-	*					
5	-	-	-	-	IS	306	-	*					
6	-	-	-	-	11	376	-	*					
7	8.4	51	0.55	0.6	IS	376	76	*					
8					IS	315		*					
9	-	-	-	-	IS	280	-	*					
10					IS	240		*					
11	-	-	-	-	IS	360	-	*					
12	-	-	-	-	IS	336	-	*					
13					IS	332		*					
14	8.1	69	1.13	0.06	IS	358	68	*					
15	-	-	-	-			-	*					
16	-	-	-	-			-	*					
17								*					
18								*					
19	-	-	-	-			-	*					
20	-	-	-	-			-	*					
21	9.2	40	0.02	0.05	5	356	58	*					
22					8	328		*					
23	-	-	-	-	5	330	-	*					
24								*					
25	-	-	-	-	5	342	-	*					
26	-	-	-	-	5	343	-	*					
27	-	-	-	-	5	334	-	*					
28	8.1	40	364	0.12	5	286	86	*					
29	-	-	-	-	5	296	-	*					
30	-	-	-	-	6	284		*					
31	-	-	-	-	-			*					

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford Composite Sampler Results

Month	PH	COD mg/l	Ammonia as N mg/l	Total Phosphorus mg/l	Suspended Solids mg/l	Total Solids mg/l	Colour Pt Co units	Flow Daily (litres)	COD Kg/Day	Ammonia as Kg/Day	Total Phosphorus Kg/Day	Suspended Solids Kg/Day	Total Solids Kg/Day
October 2005													
1	-	-	-	-	5	310		*					
2	-	-	-	-	5	254		*					
3	-	-	-	-	13	312		*					
4	-	-	-	-	5	268		*					
5	7.9	35	1.18	0.05	5	326	75	*					
6	-	-	-	-	15	346		*					
7	-	-	-	-	5	302	-	*					
8	-	-	-	-	5	320		*					
9	-	-	-	-	11	342	-	*					
10	-	-	-	-	5	282	-	*					
11	-	-	-	-	5	232	-	*					
12	8.5	53	0.65	0.05	5	244	98	*					
13	-	-	-	-	5	269		*					
14	-	-	-	-	5	288	-	*					
15	-	-	-	-	5	304		*					
16	-	-	-	-	5	320	-	*					
17	-	-	-	-	5	318	-	*					
18	-	-	-	-	7	330	-	*					
19	7.8	56	0.94	0.05	6	304	84	*					
20	-	-	-	-	5	320		132926				0.66	42.54
21	-	-	-	-	130	246	-	241321				31.37	59.36
22	-	-	-	-	5	248		766784				3.83	190.16
23	-	-	-	-	5	228	-	745801				3.73	170.04
24	-	-	-	-	5	159	-	8365355				41.83	1330.09
25	-	-	-	-	-	-	-	1927435				0.00	0.00
26	7.6	73	0.8	0.1	6	250	175	332623	24.28	0.27	0.03	2.00	83.16
27	-	-	-	-	5	174		867170				4.34	150.89
28	-	-	-	-	5	212	-	1674030				8.37	354.89
29	-	-	-	-	5	264		1663773				8.32	439.24
30	-	-	-	-	5	248	-	3502656				17.51	868.66
31	-	-	-	-	5	184	-	2279078				11.40	419.35

* All flow data up to November 2005 was lost due to a technical fault in the storage of the data.

Bord Na Mona Energy Ltd, Mountlillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month	H	Parameters				Colour Pt. Co	Flow Daily (litres)	COD Kg/Day	Ammonia Kg/Day	Daily Totals		
		COD mg/l	Ammonia Nin./l	Total Phos./l	Suspended Solids mg/l					Total Phos./l	Suspended Solids Kg/Day	Total Solids Kg/Day
November												
2005												
1	-	-	-	-	5	214	1820934				9.10	389.68
2	7.8	58	0.15	0.05	5	211	4133781	239.76	0.62		20.67	872.23
3					5	248	4990663			0.21	24.95	1237.68
4	-	-	-	-	5	245	2749043				13.75	673.52
5					5	222	2627456				13.14	583.30
6	-	-	-	-	5	262	2342119				11.71	613.64
7	-	-	-	-	5	168	3293643				16.47	553.33
8	-	-	-	-	5	260	4297210				21.49	1117.27
9	7.9	0.61	0.47	0.05	5	276	2221813	1.36	1.04	0.11	11.11	613.22
10					5	322	2262768				11.31	728.61
11	-	-	-	-	5	270	3068716				15.34	828.55
12					5	396	2685770				13.43	1063.56
13	-	-	-	-	13	317	2035145				26.46	645.14
14	-	-	-	-	26	300	1781539				46.32	534.46
15	-	-	-	-	10	258	1696573				16.97	437.72
16	7.9	51	0.5	0.05	5	300	1398629	71.32	0.70	0.07	8.99	419.56
17	-	-	-	-	5	314	1419600				7.10	445.75
18	-	-	-	-	8	320	1329742				10.64	425.52
19	-	-	-	-	5	332	1204484				6.02	399.89
20	-	-	-	-	6	328	952556				5.72	312.44
21	-	-	-	-			853653				0.00	0.00
22	-	-	-	-	5	298	766248				3.83	228.34
23	8.4	63	0.31	0.05	5	328	1044945	65.83	0.32	0.05	5.22	342.74
24					5	326	1068365				5.34	348.29
25	-	-	-	-	5	274	925718				4.63	253.65
26					5	282	1128702				5.64	318.29
27	-	-	-	-			6097					
28	-	-	-	-			2208					
29							2722					
30	7.6	42	0.38	0.05	5	216	4625	1.19	0.00	0.00	0.00	0.00
31	-	-	-	-	-	101					0.02	1.00

Bord Na Mona Energy Ltd, Mountdillon Group, Lanesboro, Co Longford
Composite Sampler Results

Month	pH	COD	Ammonia as N	Phosphorus	Suspended Solids	Total Solids	Colour Pt/Co	Flow Daily	COD	Ammonia as N	Phosphorus	Suspended Solids	Total Solids
December 2005		mg/l	mg/l	mg/l	mg/l	mg/l	units	Total (litres)	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day
1					5	360		5984837				29.92	2154.54
2	-	-	-	-	5	333	-	8196800				40.98	2729.53
3					12	230		4150709				49.81	954.66
4	-	-	-	-	5	288	-	2503474				12.52	721.00
5	-	-	-	-	5	272	-	2046259				10.23	556.58
6	-	-	-	-	5	330	-	1845184				9.23	608.91
7	7.9	54	0.12	0.06	5	246	77	3977889	214.81	0.48	0.24	19.89	978.56
8	-	-	-	-			-	4243748					
9	-	-	-	-			-	6823773					
10								5842797					
11	-	-	-	-			-	5760115					
12	-	-	-	-			-	5760115					
13	-	-	-	-			-	5760115					
14	-	-	-	-			-	5760115					
15	7.4	96	0.71	0.05	5	378	184	5760115	552.97	4.09	0.29	28.80	2177.32
16	-	-	-	-			-	4121460					
17								7262					
18	-	-	-	-			-	3151					
19	-	-	-	-	-		-	2976344					
20	-	-	-	-	-		-	2097558					
21	-	-	-	-	-		-	800675					
22								1397427					
23								1475101					
24	-	-	-	-	-		-	710989					
25	-	-	-	-	-		-	1291556					
26	-	-	-	-	-		-	617170					
27	-	-	-	-	-		-	548753					
28	-	-	-	-	-		-	99224					
29	-	-	-	-	5	272	-	2334444					
30	-	-	-	-	5	320	-	6337932				31.69	2028.14
31					6	352		3037310				18.22	1069.13

Appendix (ii)

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Phone	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
LW1	1/2	3/4	3/4	3/4	CL	CR	CR	CR	3/4	F	CL	CR
LW2	3/4	3/4	3/4	F	CL	CR	CR	1/2	F	F	CL	CR
LW3	1/2	3/4	3/4	F	CL	CR	CR	1/2	3/4	F	CL	CR
LW4	3/4	3/4	F	F	CL	CR	1/4	1/2	3/4	F	CL	CR
LW5	3/4	3/4	3/4	F	CL	CR	1/4	1/2	F	F	CL	CR
DD1	1/4	1/4	1/4	1/2	CL	CR	CR	1/4	CR	CR	3/4	CR
DD2	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/2	CR	3/4	CR
DD3	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
DD4	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/2	CR	3/4	CR
DD5	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
DD6	1/4	1/4	1/4	1/2	CL	CR	CR	1/4	1/4	CR	3/4	CR
DD7	1/4	1/4	1/2	1/2	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE1	1/4	1/4	1/2	1/2	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE2	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE3	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE4	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE5	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE6	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE7	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE8	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE9	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE10	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE11	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE12	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE13	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE14	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE15	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE16	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE17	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE18	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE19	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE20	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE21	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE22	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE23	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE24	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE25	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE26	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE27	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE28	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE29	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE30	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE31	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE32	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE33	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE34	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE35	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE36	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE37	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE38	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE39	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE40	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE41	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE42	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE43	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE44	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE45	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE46	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE47	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE48	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE49	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE50	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE51	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE52	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE53	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE54	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE55	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE56	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE57	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE58	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE59	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE60	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE61	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE62	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE63	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE64	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE65	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE66	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE67	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE68	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE69	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE70	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE71	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE72	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE73	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE74	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE75	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE76	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE77	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE78	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE79	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE80	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE81	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE82	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE83	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE84	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE85	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE86	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE87	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE88	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE89	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE90	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE91	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE92	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE93	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE94	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE95	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE96	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE97	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE98	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE99	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR
KE100	1/4	1/4	1/4	1/4	CL	CR	CR	1/4	1/4	CR	3/4	CR

Period	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CT 5	1/2	3/4	3/4	CR	1/4	1/2	1/2	CR	1/4	CR	1/4	CL
CT 6	1/2	3/4	3/4	CR	1/4	1/2	1/2	CR	1/4	CR	1/4	CL
CT 7	CL	CR	CL	CR	1/4	1/2	1/2	CR	1/4	CR	1/4	CL
CH 1	CR	1/4	1/4	1/2	3/4	CR	CL	1/4	1/2	CR	1/2	CR
CH 2	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 3	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 4	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 5	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 6	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 7	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 8	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 9	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 10	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
CH 11	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
DM 1	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
DM 2	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
DM 3	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
DM 4	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
DM 5	CR	1/4	1/4	1/2	3/4	CR	CR	1/4	1/2	CR	1/2	CR
DM 1	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 2	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 3	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 4	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 5	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 6	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 7	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 8	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 9	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 10	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 11	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 12	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 13	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 14	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 15	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 16	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 17	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 18	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1/4
DM 19	1/4	1/2	1/2	1/2	1/2	1/4	1/4	1/4	1/2	1/2	1/2	1

