APPENDIX 2

Dust / Landfill Gas / Leachate Monitoring Results 2004 & 2005

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

EPA Export 25-07-2013:15:20:41

Article 14(2)(b)(ii) Further Information

Particulars and Evidence

For

Greenstar Ltd

Waste Licence Application No. 53-3

Article 12 Compliance

Environmental Monitoring Information 2004 & 2005

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

Prepared By: -

O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

27th July 2005

EPA Export 25-07-2013:15:20:41

TABLE OF CONTENTS

PAGE

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

EPA Export 25-07-2013:15:20:41

1. INTRODUCTION

In accordance with the Notice issued in accordance with Article 14(2)(b)(ii) of the Waste Management Licensing Regulations, and specifically requests (3), (4) and (5) of Article 12 of that request, Greenstar Limited (Greenstar) has prepared the following information in relation to the application for the review of a Waste Licence, at Fassaroe Bray, Co. Wicklow (Waste Licence Register 53-3).

Section 2 contains the responses to the requests by the Agency for dust, leachate and landfill gas monitoring carried out during 2004 & 2005. For ease of interpretation each of the requests are presented in italics followed by Greenstar's response.

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

EPA Export 25-07-2013:15:20:41

2. RESPONSES

1. *Submit dust monitoring results for 2004 and 2005 including a full interpretation of the obtained results.*

The licence requires dust monitoring to be completed three times annually. Twice during the period May to September and once outside this time. No dust monitoring has been completed as yet for 2005. The dust levels recorded during 2004 are presented on Table 1.

2. *Submit landfill gas monitoring results for 2004 and 2005 including a full interpretation of the obtained results.*

The landfill gas monitoring is conducted monthly. The programme includes measurements of methane, carbon dioxide, oxygen and atmospheric pressure. The monitoring locations specified in the Licence include seven landfill gas wells (GS-05, GS-06, GS-07, GS-08, GS-09, GS-10 and GS-11), the four groundwater monitoring wells (BH-2, BH-5, BH-6 and BH-7) and two of the leachate boreholes (L-01, L-02). Leachate monitoring location L-03 is also included in the monitoring programme. The results are reported in the quarterly reports, which includes an interpretation of the data.

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

The results for 2004 and the monitoring in 2005 completed to date along with an interpretation of the data are presented below.

EPA Export 25-07-2013:15:20:41

Dust Monitoring Fassaroe 2004

Table 1

Location Number	WLA Licence Dust Deposition Limit	Jun-Jul 04	Aug-Sept 04	Nov-Dec 04	Dec-Jan 04
	(mg/m2/day)	Dust (mg/m2/day)	Dust (mg/m2/day)	Dust (mg/m2/day)	Dust (mg/m2/day)
DS-1	350	Gauge Contaminated	1690 (366 mg organic, 1324 mg inorganic)	82 (40 mg organic, 42 mg inorganic)	202 (47 mg organic, 155 mg inorganic)
DS-2	350	332 (80 mg organic, 252 mg inorganic)	488 (132 mg organic, 356 mg inorganic)	135 (22 mg organic, 113 mg inorganic)	359 (58 mg organic, 301 mg inorganic)
DS-3	350	Gauge Contaminated	368 (112 mg organic, 256 mg inorganic)	167 (47 mg organic, 120 mg inorganic)	272 (99mg organic, 173 mg inorganic)
DS-4	350	Gauge Damaged	1220 (324 mg organic, 896 mg inorganic)	2555 (364 mg organic, 2191 mg inorganic)	Gauge Damaged

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

EPA Export 25-07-2013:15:20:41

Landfill Gas Monitoring Q1 2004

LANDFILL GAS MONITORING FORM		Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot			**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR			**National Grid Reference**: E3242, N2179		
Site Status: Operational			**Date**: 27/01/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range:** 0 – 100%				
Monitoring Personnel: OCM			**Weather:** Scattered showers, windy		

Results

Sample Station Number	Borehole/ spike/other	Temperature °C	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole	5.6	0.0	4.2	13.2	1021	
GS-05	Borehole	5.2	0.0	2.9	15.8	1021	
GS-06	Borehole	5.1	0.0	7.9	11.5	1021	
GS-07	Borehole	5.0	0.0	9.0	9.5	1021	
GS-08	Borehole	5.5	0.0	2.1	17.2	1021	
GS-09	Borehole	5.6	0.0	7.9	11.5	1021	
GS-11	Borehole	6.3	0.0	12.4	7.0	1019	
BH-2	Borehole	5.0	0.0	0.1	17.9	1021	
BH-5	Borehole	7.2	0.0	0.1	17.8	1021	
BH-6	Borehole	5.1	0.0	0.4	17.7	1021	
BH-7	Borehole	5.0	0.0	0.6	17.0	1020	
L-01	Borehole	5.8	0.0	3.6	14.4	1020	
L-02	Borehole	-					Not Accessible – Covered by Retaining Wall

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

EPA Export 25-07-2013:15:20:41

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 26/02/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Overcast, dry, cold		

Results

Sample Station Number	Borehole/ spike/other	Temperature °C	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole	5.8	0.0	2.2	17.2	1014	
GS-05	Borehole	5.4	0.0	3.8	14.5	1014	
GS-06	Borehole	5.5	0.0	7.8	11.5	1014	
GS-07	Borehole						Borehole Destroyed
GS-08	Borehole	5.7	0.0	7.9	11.5	1013	
GS-09	Borehole	5.9	0.0	9.3	7.5	1012	
GS-11	Borehole	6.4	0.0	13.0	4.6	1012	
BH-2	Borehole	5.2	0.0	0.0	17.2	1016	
BH-5	Borehole	7.3	0.0	2.8	14.0	1014	
BH-6	Borehole	5.3	0.0	0.4	17.0	1014	
BH-7	Borehole	5.2	0.0	0.6	16.9	1014	
L-01	Borehole	6.0	0.0	14.0	0.2	1014	
L-02	Borehole	5.9	0.0	11.0	4.9	1013	

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

EPA Export 25-07-2013:15:20:41

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 29/03/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Clear, dry, sunny		

Results

Sample Station Number	Borehole/ spike/other	Temperature °C	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole	7.6	0.0	0.5	16.8	1023	
GS-05	Borehole	7.2	0.0	2.2	15.9	1022	
GS-06	Borehole	7.1	0.0	5.7	13.4	1022	
GS-07	Borehole						Borehole Destroyed
GS-08	Borehole	7.5	0.0	11	5.3	1023	
GS-09	Borehole	7.6	0.0	2.1	17.2	1022	
GS-11	Borehole	8.3	0.0	12	7.0	1022	
BH-2	Borehole	8.0	0.0	0.1	17.5	1022	
BH-5	Borehole	7.2	0.0	0.1	17.0	1022	
BH-6	Borehole	7.1	0.0	0.1	17.5	1022	
BH-7	Borehole	7.0	0.0	0.0	18.1	1022	
L-01	Borehole	7.8	0.0	6.5	16.3	1022	
L-02	Borehole	7.8	0.0	6.5	16.3	1022	

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

EPA Export 25-07-2013:15:20:41

Interpretation

Methane was not detected in any of the monitoring locations over the three monitoring events. In January, carbon dioxide was detected above the carbon dioxide emission trigger level of 1.5% v/v at three boreholes located outside the waste body GS-01 (4.2% v/v), GS-05 (2.9% v/v) and GS-06 (7.9% v/v). Carbon dioxide was not detected above the trigger level for the other four boreholes located outside the waste body (BH-2, BH-5, BH-6 and BH-7). The highest carbon dioxide reading within the waste body was at GS-11 (12.4% v/v).

Carbon dioxide was detected in all the monitoring locations in February, with the exception of BH-2, which is consistent with previous monitoring events. The levels measured in BH-5 (3.8% v/v), which is outside the waste body, were above the levels measured in the previous month. The results for GS-01 (2.2% v/v), GS-05 (3.8% v/v) and GS-06 (7.8% v/v) were above the trigger level of 1.5% v/v, at levels consistent with previous monitoring events.

Only two (2) of the seven (7) boreholes located outside the waste body exceeded the trigger value for carbon dioxide in March. These were GS-05 (2.2 % v/v) and GS-06 (5.7% v/v). These results are similar to results for March 2003, which showed carbon dioxide levels at GS-05 and GS-06 of 2.1% v/v and 6.7 % v/v respectively. In general, carbon dioxide levels for March were lower than previous quarters.

OCM conducted gas monitoring in the transfer station building and the site offices during all three monitoring events. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

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

Carbon dioxide levels exceeded the trigger limit of 1.5% in the 1st quarter of 2004 on 9 occasions. Of the 21 gas measurements taken in the 7 monitoring locations located outside the fill area (GS-1, GS-5, GS-6, BH-2, BH-5, BH-6 and BH-7) there was 56.5 % compliance with the trigger limits.

Carbon dioxide levels measured in the monitoring locations in the fill (GS-07, GS-08, GS-09, GS-11, L-01 and L-02) ranged from 2 to 13% over the monitoring period, with the highest level (13% v/v) detected in GS-11.

EPA Export 25-07-2013:15:20:42

Landfill Gas Monitoring Q2 2004

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 21/04/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Scattered showers, windy		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0.0	0.1	17.4	995	
GS-05	Borehole		0.0	2.3	14.2	991	
GS-06	Borehole		0.0	6.6	12.0	991	
GS-07	Borehole		0.0	6.6	12.0	991	
GS-08	Borehole		0.0	2.2	17.2	991	
GS-09	Borehole		0.0	2.3	14.0	991	
GS-11	Borehole		0.0	0.0	17.1	991	
BH-2	Borehole		0.0	0.0	17.3	997	
BH-5	Borehole		0.0	0.0	17.3	996	
BH-6	Borehole		0.0	0.0	17.4	989	
BH-7	Borehole		0.0	0.1	17.1	996	
L-01	Borehole		0.0	1.5	16.3	991	
L-02	Borehole	-					Inaccessible – Covered by Retaining Wall
L-03	Borehole		0.5	19	0.1	995	Installed same day.

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

EPA Export 25-07-2013:15:20:42

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 24/05/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Overcast, dry, cold		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0.0	4.7	11.1	1026	
GS-05	Borehole		0.0	1.2	15.5	1026	
GS-06	Borehole		0.0	7.1	10.8	1026	
GS-07	Borehole		0.0	10	7.0	1026	
GS-08	Borehole		0.0	11	7.1	1026	
GS-09	Borehole		0.0	5	10.7	1026	
GS-11	Borehole		0.0	3.4	14.0	1026	
BH-2	Borehole		0.0	0.0	16.9	1026	
BH-5	Borehole		0.0	0.1	17.4	1026	
BH-6	Borehole		0.0	2.1	16.3	1026	
BH-7	Borehole		0.0	0.7	15.8	1026	
L-01	Borehole		0.0	7.8	7.8	1026	
L-02	Borehole					1026	Inaccessible – Covered by Retaining Wall
L-03	Borehole		0.5	19.0	0.1	1026	

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

EPA Export 25-07-2013:15:20:42

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 10/06/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Clear, dry, sunny		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0.0	5.0	11.2	1008	
GS-05	Borehole		0.0	4.2	12.3	1008	
GS-06	Borehole		0.0	7.4	9.9	1008	
GS-07	Borehole		0.0	11.0	7.7	1008	
GS-08	Borehole		0.0				Inaccessible – Site Operations
GS-09	Borehole		0.0	7.7	8.8	1008	
GS-11	Borehole		0.0	18.0	3.1	1008	
BH-2	Borehole		0.0	0.0	16.4	1008	
BH-5	Borehole		0.0	11.0	5.8	1008	
BH-6	Borehole		0.0	3.6	14.7	1007	
BH-7	Borehole		0.0	0.4	15.9	1008	
L-01	Borehole		0.0	7.1	10.8	1008	
L-02	Borehole						Inaccessible – Covered by Retaining Wall
L-03	Borehole		2.3	14.0	4.2	1008	

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

EPA Export 25-07-2013:15:20:42

Interpretation

Methane was detected in the newly installed leachate monitoring well (L-03) during the three monitoring events. The levels measured were 0.5% v/v for both April and May and 2.3% v/v for June.

Methane was not detected in any of the other monitoring locations in the reporting period. The levels recorded do not constitute an exceedance of the emission limits for gas as L-03 is located within the waste body.

In April, carbon dioxide was detected above the trigger level of 1.5% v/v at two boreholes located outside the waste body GS-05 (2.3% v/v) and GS-06 (6.6% v/v), which is consistent with previous monitoring events. Carbon dioxide was not detected above the trigger level in the other four boreholes located outside the waste body (BH-2, BH-5, BH-6 and BH-7). The highest carbon dioxide reading within the waste body was at L-03 (19% v/v).

Carbon dioxide was detected in all the monitoring locations in May, with the exception of BH-2. The results for GS-01 (4.7% v/v), GS-05 (1.2% v/v), GS-06 (7.1% v/v) and BH-6 (2.1% v/v) were above the trigger level of 1.5% v/v, at levels consistent with previous monitoring events.

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

The trigger level was exceeded in five (5) of the seven (7) boreholes located outside the waste body in June. These were GS-01 (5 % v/v), GS-05 (4.2% v/v), GS-06 (7.4% v/v), BH-5 (11% v/v) and BH-6 (3.6% v/v).

OCM conducted gas monitoring in the transfer station building and the site offices during all three monitoring events. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

Carbon dioxide levels exceeded the trigger limit of 1.5% in the 2nd quarter of 2004 on 11 occasions. Of the 21 gas measurements taken in the 7 monitoring locations located outside the fill area (GS-1, GS-5, GS-6, BH-2, BH-5, BH-6 and BH-7) there was 52.3% compliance with the trigger limits.

Carbon dioxide levels measured in the monitoring locations in the fill (GS-07, GS-08, GS-09, GS-11, L-01 and L-02) ranged from 0 to 19% v/v over the monitoring period, with the highest level (19% v/v) detected in L-03.

EPA Export 25-07-2013:15:20:42

Landfill Gas Monitoring Q3 2004

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 08/07/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Scattered showers, windy		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0.0	4.2	11.4	1010	
GS-05	Borehole		0.0	2.8	13.7	1010	
GS-06	Borehole		0.0	8.5	9.8	1010	
GS-07	Borehole		0.0	1.4	14.7	1010	
GS-08	Borehole						Inaccessible –covered by mixed
GS-09	Borehole		0.0	6.7	8.6	1010	
GS-11	Borehole		0.0	12.0	8.3	1010	
BH-2	Borehole		0.0	0.0	16.0	1010	
BH-5	Borehole		0.0	0.7	15.7	1010	
BH-6	Borehole		0.0	4.2	14.0	1010	
BH-7	Borehole		0.0	0.1	16.1	1010	
L-01	Borehole		0.3	6.2	10.2	1010	
L-02	Borehole	-					Inaccessible – Covered by Retaining Wall
L-03	Borehole						Inaccessible- Covered by C&D

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

EPA Export 25-07-2013:15:20:42

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 06/08/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Overcast, dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0	0.4	15.6	1008	
GS-05	Borehole		0	4.1	12.5	1008	
GS-06	Borehole		0	11.0	7.6	1010	
GS-07	Borehole						Headworks Damaged
GS-08	Borehole		0	0	15.6	1010	
GS-09	Borehole		0	1.7	13.4	1010	
GS-11	Borehole						Inaccessible – Coved C&D
BH-2	Borehole		0	0	15.7	1010	
BH-5	Borehole						Headworks Damaged
BH-6	Borehole		0	1.3	15.6	1010	
BH-7	Borehole		0	0.2	15.5	1010	
L-01	Borehole		0	0.7	14.2	1010	
L-02	Borehole						Inaccessible – Covered by Retaining Wall
L-03	Borehole						Inaccessible – Coved C&D

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

EPA Export 25-07-2013:15:20:42

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot	**Site Address**: Fassaroe, Bray, Co. Wicklow			
Operator: GREENSTAR	**National Grid Reference**: E3242, N2179			
Site Status: Operational	**Date**: 03/09/2004			
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM	**Weather**: Clear, dry, sunny			

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0	2.0	11.7		
GS-05	Borehole		0	4.2	10.2		
GS-06	Borehole		0	7.9	9.2		
GS-07	Borehole						Headworks Damaged
GS-08	Borehole		0	0.0	11.9		
GS-09	Borehole		0	4.7	8.2		
GS-11	Borehole						Inaccessible – Coved C&D
BH-2	Borehole		0	2.0	13.2		
BH-5	Borehole						Headworks Damaged
BH-6	Borehole		0	2.4	12.4		
BH-7	Borehole		0	0.0	13.1		
L-01	Borehole		0	1.3	10.7		
L-02	Borehole						Inaccessible – Covered by Retaining Wall
L-03	Borehole						Inaccessible – Coved C&D

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

EPA Export 25-07-2013:15:20:42

Interpretation

Methane was detected in leachate monitoring well L-01 (0.3% v/v) in July, but was not detected in August or September. Methane was not detected in any of the other monitoring locations in the reporting period. The levels recorded do not constitute an exceedance of the emission limits for gas as L-01 is located within the waste body.

In July, carbon dioxide was detected above the trigger level of 1.5% v/v at four boreholes located outside the waste body GS-1 (4.2% v/v), GS-05 (2.8% v/v), GS-06 (8.5% v/v) and BH-6 (4.2% v/v) which is consistent with previous monitoring events. Carbon dioxide was not detected above the trigger level in the other three boreholes located outside the waste body (BH-2, BH-5 and BH-7).

Carbon dioxide was detected in all the monitoring locations in August, with the exception of GS-08 and BH-2. The results for GS-05 (4.1% v/v), GS-06 (11% v/v) and GS-09 (1.7% v/v) were above the trigger level of 1.5% v/v, at levels consistent with previous monitoring events. The trigger level was exceeded in five (5) of the six (6) monitored boreholes located outside the waste body in September. These were GS-01 (2% v/v), GS-05 (4.2% v/v), GS-06 (7.9% v/v), BH-2 (2%v/v) and BH-6 (2.4% v/v).

OCM conducted gas monitoring in the transfer station building and the site offices during all three monitoring events. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

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

Carbon dioxide levels exceeded the trigger limit of 1.5% in the 3rd quarter of 2004 on 12 occasions. Of the 19 gas measurements taken in the 7 monitoring locations located outside the fill area (GS-1, GS-5, GS-6, BH-2, BH-5, BH-6 and BH-7) there was 36.8% compliance with the trigger limits.

Carbon dioxide levels measured in the monitoring locations in the fill (GS-07, GS-08, GS-09, GS-11 and L-01) ranged from 0 to 12% v/v over the monitoring period, with the highest level (12% v/v) detected in GS-11 in July. These levels are consistent with previous monitoring events.

EPA Export 25-07-2013:15:20:42

Landfill Gas Monitoring Q4 2004

LANDFILL GAS MONITORING FORM		Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot			**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR			**National Grid Reference**: E3242, N2179		
Site Status: Operational			**Date**: 01/10/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range:** 0 – 100%				
Monitoring Personnel: OCM			**Weather:** Cold, Dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole						Headworks Damaged
GS-05	Borehole		0.0	6.0	8.9	1010	
GS-06	Borehole		0.0	2.0	14.7	1010	
GS-07	Borehole						Headworks Damaged
GS-08	Borehole			11.0	8.3	1010	
GS-09	Borehole		0.0	9.0	7.4	1008	
GS-11	Borehole						Headworks Damaged
BH-2	Borehole		0.0	0.5	15.7	1008	
BH-5	Borehole						Headworks Damaged
BH-6	Borehole						Removed pending relocation
BH-7	Borehole		0.0	3.0	13.7	1008	
L-01	Borehole		0.0	1.0	16.0	1008	
L-02	Borehole	-					Inaccessible – Covered by Retaining Wall
L-03	Borehole						Inaccessible- Covered by C&D

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

EPA Export 25-07-2013:15:20:42

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 02/11/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Overcast, dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole						
GS-05	Borehole		0.0	2.3	14.5	1018	
GS-06	Borehole		0.0	0.0	17.4	1020	
GS-07	Borehole						Headworks Damaged
GS-08	Borehole		0.0	8.9	12.0	1020	
GS-09	Borehole						Inaccessible – Coved C&D
GS-11	Borehole						Inaccessible – Coved C&D
BH-2	Borehole		0.0	0.0	17.0	1018	
BH-5	Borehole						Headworks Damaged
BH-6	Borehole						Removed pending relocation
BH-7	Borehole		0.0	1.0	16.0		
L-01	Borehole		0.0	1.5	16.3		
L-02	Borehole						Inaccessible – Covered by Retaining Wall
L-03	Borehole						Inaccessible – Coved C&D

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

EPA Export 25-07-2013:15:20:42

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 02/12/2004		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Cold, Dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole						Headworks Damaged
GS-05	Borehole		0.0	3.3	17.5	1019	
GS-06	Borehole		0.0	9.4	11.5	1017	
GS-07	Borehole						Headworks Damaged
GS-08	Borehole						Headworks Damaged
GS-09	Borehole						Inaccessible – Coved C&D
GS-11	Borehole						Inaccessible – Coved C&D
BH-2	Borehole		0.0	0.4	21.0	1020	
BH-5	Borehole						Headworks Damaged
BH-6	Borehole						Removed pending relocation
BH-7	Borehole		0.0	0.5	20.4	1020	
L-01	Borehole		0.5	11.0	6.0	1019	
L-02	Borehole						Inaccessible – Covered by Retaining Wall
L-03	Borehole						Inaccessible – Coved C&D

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

EPA Export 25-07-2013:15:20:43

Interpretation

Methane was detected in leachate monitoring well L-01 (0.5% v/v) in December, but was not detected in October or November. Methane was not detected in any of the other monitoring locations in the reporting period. The levels recorded do not constitute an exceedance of the emission limits for gas as L-01 is located within the waste body.

In October, carbon dioxide was detected above the trigger level of 1.5% v/v at three boreholes located outside the waste body GS-05 (6.0% v/v), GS-06 (2.0% v/v), and BH-7 (3.0% v/v) which is consistent with previous monitoring events. Carbon dioxide was not detected above the trigger level in the other borehole located outside the waste body (BH-2).

Carbon dioxide was detected in four of the six monitoring locations in November. The results for BH-02 and BH-07 which are located outside the waste body were below the trigger level of 1.5% v/v at slightly lower levels than previously recorded. The trigger level was exceeded in one (1) of the three (3) monitored boreholes located outside the waste body in November (GS-05, 2.3%v/v).

The December event showed levels consistent with the previous two monitoring events. Levels outside the waste body were above the trigger level in GS-05 (3.3% v/v) but below in both BH-02 (0.4%v/v) and BH-07 (0.5% v/v).

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

OCM conducted gas monitoring in the transfer station building and the site offices during all three monitoring events. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

Carbon dioxide levels exceeded the trigger limit of 1.5% in the 4th quarter of 2004 on 11 occasions. Of the 12 gas measurements taken in the 4 available monitoring locations located outside the fill area (GS-5, GS-6, BH-2, and BH-7) there was 50% compliance with the trigger limits. Carbon dioxide levels measured in the monitoring locations in the fill (GS-08, GS-09 and L-01) ranged from 1.0 to 11.0% v/v over the monitoring period, with the highest level (11% v/v) detected in GS-08 in October. These levels are consistent with previous monitoring events.

EPA Export 25-07-2013:15:20:43

Landfill Gas Monitoring Q1 2005

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address:** Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference:** E3242, N2179		
Site Status: Operational		**Date:** 06/01/2005		
Instrument used: Gas Data LMSx	**Normal Analytical Range:** 0 – 100%			
Monitoring Personnel: OCM		**Weather:** Windy; Dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole						Headworks Damaged
GS-05	Borehole		0.0	2.3	18.9	1018	
GS-06	Borehole		0.0	7.2	15.3	1018	
GS-07	Borehole						Headworks Damaged
GS-08	Borehole						Headworks Damaged
GS-09	Borehole						Headworks Damaged
GS-11	Borehole						Headworks Damaged
BH-2	Borehole		0.0	0.2	20.9	1018	
BH-5	Borehole						Headworks Damaged
BH-6	Borehole						Removed pending relocation
BH-7	Borehole		0.0	0.4	20.5	1019	
L-01	Borehole		0.0	4.4	15.9	1019	
L-02	Borehole	-					Inaccessible – Covered by Retaining Wall
L-03	Borehole						Headworks Damaged

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

EPA Export 25-07-2013:15:20:43

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 07/02/2005		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Overcast, dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole						Replaced by BH-5
GS-05	Borehole		0.0	3.5	18.0	1025	
GS-06	Borehole		0.0	6.7	15.2	1025	
GS-07	Borehole						Removed pending relocation
GS-08	Borehole						Removed pending relocation
GS-09	Borehole		0.0	7.5	8.8	1025	
GS-11	Borehole						Inaccessible – Coved
BH-2	Borehole		0.0	0.2	21.0	1025	
BH-5	Borehole		0.0	0.0	21	1025	Newly Installed
BH-6	Borehole						Removed pending relocation
BH-7	Borehole		0.0	0.2	20.7	1025	
L-01	Borehole		0.0	1.5	16.3	1025	
L-02	Borehole						Inaccessible – Covered by Retaining Wall
L-03	Borehole						Headworks Damaged

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

EPA Export 25-07-2013:15:20:43

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 01/03/2005		
Instrument used: Gas Data LMSx	**Normal Analytical Range:** 0 – 100%			
Monitoring Personnel: OCM		**Weather:** Cold, Dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-05	Borehole		0.0	4.1	12.1	1007	
GS-06	Borehole		0.0	6.3	15.2	1007	
GS-07	Borehole		0.0	12	8.6	1008	
GS-08	Borehole		0.0	13	10.1	1008	
GS-09	Borehole		0.0	9.4	9.7	1009	
GS-10	Borehole		2.5	18	0.0	1008	Newly Installed into Waste
GS-11	Borehole		0.0	13	6.2	1008	
BH-2	Borehole		0.0	0.1	20.9	1008	
BH-5	Borehole		0.0	5.7	14.6	1007	
BH-6	Borehole		0.0	2.1	17.7	1008	
BH-7	Borehole		0.0	0.3	20.5	1008	
L-01	Borehole		0.0	9.7	5.1	1008	
L-02	Borehole		0.0	7.5	8.8	1008	
L-03	Borehole		0.2	14	0.5	1008	

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

EPA Export 25-07-2013:15:20:43

Interpretation

Methane was detected in gas monitoring well GS-10 (2.5% v/v) and leachate monitoring well L-03 (0.2% v/v) in March. Methane was not detected in any of the other monitoring locations in the reporting period. The levels recorded do not constitute an exceedance of the emission limits, as GS-10 is located within the waste body.

In January, carbon dioxide was detected above the trigger level of 1.5% v/v at two boreholes located outside the waste body GS-05 (2.3% v/v) and GS-06 (7.2% v/v) which is consistent with previous monitoring events. Carbon dioxide was not detected above the trigger level in the other boreholes located outside the waste body (BH-2 and BH7). Due to damage to the wells monitoring was not possible at locations GS-01, GS-07, GS-08, GS-09, GS-11, BH-05, BH-06, L-02 and L-03 in January.

Carbon dioxide was detected above the trigger level in two of the five monitoring locations outside the waste body in February. The results for BH-02, BH-05 and BH-07 which are located outside the waste body were below the trigger level of 1.5% v/v at slightly lower levels than previously recorded. The trigger level was exceeded at locations GS-05 (3.5% v/v) and GS-06 (6.7% v/v). Monitoring was not possible at locations GS-07, GS-08, GS-11, BH-06, L-02 and L-03 in February.

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

In March, all of the landfill gas monitoring boreholes were in place. Four of the monitoring wells located outside the waste body (GS-05, GS-06, BH-05 and BH-06) had carbon dioxide levels above the trigger level. Higher than normal carbon dioxide levels were also recorded in the waste body (3-6% v/v higher on average) especially in the newly installed wells, GS-07, GS-08, GS-10, GS-11, BH-05 and BH-06.

OCM conducted gas monitoring in the transfer station building and the site offices during all three monitoring events. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

Carbon dioxide levels exceeded the trigger limit of 1.5% v/v in the 1st quarter of 2005 on 8 occasions. Of the 15 gas measurements taken in the 6 monitoring locations located outside the fill area (GS-05, GS-06, BH-2, BH-05, BH-06 and BH-7) there was 53% compliance with the trigger limits. Carbon dioxide levels measured in the monitoring locations in the fill (GS-07, GS-08, GS-09, GS-10, GS-11, L-01, L-02 and L-03) ranged from 1.5 to 18.0% v/v over the monitoring period, with the highest level (18% v/v) detected in GS-10 in March.

EPA Export 25-07-2013:15:20:43

Landfill Gas Monitoring Q2 2005

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 05/04/2005		
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM		**Weather**: Overcast with some showers		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0.0	0.1	20.9	1025	
GS-05	Borehole		0.0	3.1	16.2	1025	
GS-06	Borehole		0.0	5.8	14.2	1025	
GS-07	Borehole		0.0	0.0	17.3	1025	
GS-08	Borehole		0.0	9.5	18.9	1025	
GS-09	Borehole		0.0	0.0	17.9	1025	
GS-10	Borehole		1.1	0.0	16.2	1025	
GS-11	Borehole		0.0	4.2	16.5	1025	
BH-2	Borehole		0.0	0.2	19.8	1025	
BH-5	Borehole		0.0	0.1	20.2	1025	
BH-6	Borehole		0.0	0.1	20.4	1025	
BH-7	Borehole		0.0	0.3	19.7	1025	
L-01	Borehole		1.0	12.0	4.8	1025	
L-02	Borehole		-	-	-	-	Inaccessible
L-03	Borehole		0.0	0.0	20.4	1028	

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

EPA Export 25-07-2013:15:20:43

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot		**Site Address**: Fassaroe, Bray, Co. Wicklow		
Operator: GREENSTAR		**National Grid Reference**: E3242, N2179		
Site Status: Operational		**Date**: 03/05/2005		
Instrument used: Gas Data LMSx	**Normal Analytical Range:** 0 – 100%			
Monitoring Personnel: OCM		**Weather:** Overcast, dry		

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0.0	0.0	17.6	1008	
GS-05	Borehole		0.0	1.9	14.4	1008	
GS-06	Borehole		0.0	5.2	20.3	1008	
GS-07	Borehole		0.0	0.0	20.8	1025	
GS-08	Borehole		8.7	9.6	0.0	1008	
GS-09	Borehole		0.0	0.0	20.8	1008	
GS-10	Borehole		-	-	-	-	Not able to open head works
GS-11	Borehole		0.0	0.0	20.5	1008	
BH-2	Borehole		0.0	0.1	20.5	1008	
BH-5	Borehole		0.0	0.2	20.5	1008	
BH-6	Borehole		0.0	0.1	20.1	1008	
BH-7	Borehole		0.0	0.5	20.0	1008	
L-01	Borehole		0.0	0.0	20.6	1040	
L-02	Borehole		-	-	-	-	Inaccessible
L-03	Borehole		0.0	0.0	20.5	1008	

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

EPA Export 25-07-2013:15:20:43

LANDFILL GAS MONITORING FORM	Baseline		Ambient	x
Site Name: Greenstar Materials Recovery Ltd. – Fassaroe Depot	**Site Address**: Fassaroe, Bray, Co. Wicklow			
Operator: GREENSTAR	**National Grid Reference**: E3242, N2179			
Site Status: Operational	**Date**: 03/06/2005			
Instrument used: Gas Data LMSx	**Normal Analytical Range**: 0 – 100%			
Monitoring Personnel: OCM	**Weather**: Bright and sunny			

Results

Sample Station Number	Borehole/ spike/other		CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Barometric Pressure (mb)	Comment
GS-01	Borehole		0.0	0.0	16.5	1036	
GS-05	Borehole		0.0	1.8	15.2	1036	
GS-06	Borehole		0.0	5.9	17.8	1036	
GS-07	Borehole		0.0	0.0	19.6	1036	
GS-08	Borehole		8.7	4.0	11.6	1036	
GS-09	Borehole		0.0	0.0	18.8	1036	
GS-10	Borehole		-	-	-	-	Not able to open head works
GS-11	Borehole		0.0	0.0	18.6	1036	
BH-2	Borehole		0.0	0.2	21.5	1036	
BH-5	Borehole		0.0	0.4	19.8	1036	
BH-6	Borehole		0.0	0.1	19.6	1036	
BH-7	Borehole		0.0	0.4	21.1	1036	
L-01	Borehole		0.0	0.0	14.1	1036	
L-02	Borehole		-	-	-	-	Inaccessible
L-03	Borehole		0.0	0.0	20.6	1036	

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

EPA Export 25-07-2013:15:20:43

Interpretation

Methane was detected in gas monitoring well GS-10 in April (1.1% v/v) in GS 8 in May and June (8.7% v/v and 8.9% v/v) and in leachate monitoring well L-01 (1.0% v/v) in April. Methane was not detected in any of the other monitoring locations in the reporting period. GS-08, GS-10 and L-01 are located within the fill area. Methane was not detected in any of the wells outside the fill area.

In April, carbon dioxide was detected above the trigger level of 1.5% v/v at two boreholes located outside the waste body GS-05 (3.1% v/v) and GS-06 (5.8% v/v), which is consistent with previous monitoring events. Carbon dioxide was not detected above the trigger level in the other boreholes located outside the waste body.

In May carbon dioxide was detected above the trigger level of 1.5% v/v in two of the monitoring locations outside the waste body GS-05 (1.9% v/v) and GS-06 (5.2% v/v). Carbon dioxide was not detected above the trigger level in the other boreholes located outside the waste body. These levels whilst exceeding the trigger levels are lower than recorded in April. Monitoring was not possible at locations GS-10 and L-02 in May as these locations were not accessible.

In June carbon dioxide was detected above the trigger level of 1.5% v/v in two of the boreholes located outside the waste body GS-05 (1.8% v/v) and GS-06 (5.9% v/v). Carbon dioxide was not detected above the trigger level in the other boreholes located outside the waste body.

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

OCM conducted gas monitoring in the transfer station building and the site offices during all three monitoring events. The monitoring did not detect the presence of carbon dioxide or methane in any of the buildings.

Carbon dioxide levels exceeded the trigger limit of 1.5% v/v in the 1st quarter of 2005 on 6 occasions. Of the 18 gas measurements taken in the 6 monitoring locations located outside the fill area (GS-05, GS-06, BH-2, BH-05, BH-06 and BH-7) there was 56% compliance with the trigger limits. Carbon dioxide levels measured in the monitoring locations in the fill (GS-07, GS-08, GS-09, GS-10, GS-11, L-01, L-02 and L-03) ranged from 0.1 to 12.0% v/v over the monitoring period, with the highest level (18% v/v) detected in L-01 in April.

EPA Export 25-07-2013:15:20:43

3. *Submit leachate monitoring results for 2004 and 2005 including a full interpretation of the obtained results*

The monitoring programme specifies monthly measurements of leachate levels and the once off analysis of leachate samples. Sufficient volumes of leachate have not been present in the monitoring wells to allow for the collection of representative samples to date. The results of the monitoring including an interpretation of the data is presented in the quarterly monitoring reports, and are summarised below.

Leachate Level Q1 2004

	Date	L-01	L-02
Leachate Level (m bgl)	27 Jan 2004	16.00	NDP*
	26 Feb 2004	15.90	7.10
	29 Mar 2004	15.92	7.05

*NDP = No Detection Possible

The total depth of L-01 is 16.08 m bgl and L-02 is 7.37 m bgl. A bailer was used to dip both wells to confirm the dip meter readings. In L-01, leachate was measured at 16.00 m bgl in January and 15.90 m bgl in February and 15.92 m bgl in March. In L-02, leachate was encountered at a depth of 7.10 m bgl in February and 7.05 m bgl in March. L-02 was not accessible in January due to a retaining wall partially covering the access point. This wall was subsequently removed allowing for readings in February and March.

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

Leachate Level Q2 2004

	Date	L-01	L-02	L-03
Leachate Level (m bgl)	20 April 2004	16.00	-*	16.4
	24 May 2004	15.89	-*	16.5
	10 June 2004	15.91	-*	16.4

*Well inaccessible

The total depth of L-01 is 16.08 m bgl, L-02 is 7.37 m bgl and L-03 is 17.00 m bgl. A bailer was used to dip the wells to confirm the dip meter readings. In L-01, the levels ranged from 16.00 m bgl in April and 15.89 m bgl in May to 15.91 m bgl in June. L-02 was not accessible during the monitoring period due to a retaining wall partially covering the access point. L-03 was installed in April to a depth of 17 m. The leachate level in the well was recorded at a mean level of 16.4 m over the three month monitoring period.

EPA Export 25-07-2013:15:20:44

On the 24th February 2004, the Agency conducted monitoring at L-01 and L-02 but were unable to collect representative samples due to the lack of leachate in the wells. This is consistent with previous monitoring conducted at these locations.

Leachate Level Q3 2004

	Date	L-01	L-02	L-03
Leachate Level (m bgl)	08 July 2004	15.95	-*	-*
	06 August 2004	15.97	-*	-*
	03 September 2004	15.90	-*	-*

*Well inaccessible

The total depth of L-01 is 16.08 m bgl, L-02 is 7.37 m bgl and L-03 is 17.00 m bgl. A bailer was used to dip L-01 to confirm the dip meter reading. L-01, was effectively dry in July, August and September. L-02 was not accessible during the monitoring period due to a retaining wall partially covering the access point. L-03 was also inaccessible as it was covered by C&D waste.

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

Leachate Level Q4 2004

	Date	L-01	L-02	L-03
Leachate Level (m bgl)	01 October 2004	15.90	-*	-*
	02 November 2004	15.94	-*	-*
	02 December 2004	15.89	-*	-*

*Well inaccessible

The total depth of L-01 is 16.08 m bgl, L-02 is 7.37 m bgl and L-03 is 17.00 m bgl. A bailer was used to dip L-01 to confirm the dip meter reading. L-01, was effectively dry in October, November and December. L-02 was not accessible during the monitoring period due to a retaining wall partially covering the access point. L-03 was also inaccessible as the headworks were damaged.

Leachate Level Q1 2005

	Date	L-01	L-02	L-03
Leachate Level (m bgl)	6th January 2005	15.90	-*	-*
	7th February 2005	15.90	7.10	16.70
	1st March 2005	15.98	7.10	16.74

*Well inaccessible

EPA Export 25-07-2013:15:20:44

The total depth of L-01 is 16.08 m bgl, L-02 is 7.37 m bgl and L-03 is 17.00 m bgl. A bailer was used to dip the wells to confirm the dip meter reading. There was insufficient liquid in the wells to collect a representative sample for analysis.

Leachate Level Q2 2004

	Date	L-01	L-02	L-03
Leachate Level (m bgl)	5th April 2005	15.93	-*	16.77
	3rd May 2005	15.95	7.17	16.78
	3rd June 2005	15.98	7.12	16.81

*Well inaccessible

The total depth of L-01 is 16.08 m bgl, L-02 is 7.37 m bgl and L-03 is 17.00 m bgl. A bailer was used to dip the wells to confirm the dip meter reading. There was insufficient liquid in the wells to collect a representative sample for analysis.

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

EPA Export 25-07-2013:15:20:44