



# VERIFICATION AND CERTIFICATION REPORT

# **Ecoayres Argentina S.A.**

# Methane recovery and effective use of power generation project Norte III-B Landfill

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17-12-2008	CDM.VER0500
Project Title:	
Methane recovery and effective use of power generation	on project Norte III-B Landfill
Organisation:	Client:
SGS United Kingdom Limited	Ecoayres Argentina S.A.
Publication of Monitoring Report:	
Monitoring Period:	01/01/2008 to 30/04/2008
First Monitoring Version and Date:	Version 1, 09/05/2008
Final Monitoring Version and Date:	Version 3, 15/12/2008

#### Summary:

SGS United Kingdom Ltd has performed the initial and first periodic verification of the CDM project "Methane recovery and effective use of power generation project Norte III-B Landfill" and UNFCCC Reference Number 0928. The verification includes confirming the implementation of the monitoring plan of the registered PDD and the application of the monitoring methodology as per ACM0001 version 4 dated 28<sup>th</sup> July 2006 and ACM0002 version 6 dated 19<sup>th</sup> May 2006. A site visit was conducted to verify the data submitted in the monitoring report.

The purpose of the project is to capture and destroy methane from the landfill site Norte III-B including the partial use of gas for electricity generation purposes (in order to generate electricity to be used for this project with an estimated total initial capacity of 330 kW). The landfill is located at San Miguel district in the Buenos Aires province, Argentina. It is expected that the project will result in greenhouse gas emission reduction by combusting of the recovered methane contained in the landfill gas. The installation of the project consists of a well based gas collection system with a combustion unit attached behind in order to flare the captured methane under controlled burning conditions and the partial use of gas for electricity generation purposes.

SGS confirms that the project is implemented in accordance with the validated and registered Project Design Document. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the implementation of the project has resulted in **14,265 tCO2e** during period from 01/01/2008 to 30/04/2008.

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CDM Verification						
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### Abbreviations

CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide equivalent
LFG	Landfill Gas
DOE	Designated Operational Entities
GHG	Greenhouse Gas (es)
GWP	Global Warming Potential
CH <sub>4</sub>	Methane
DCH <sub>4</sub>	Density of Methane
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
SGS	SGS United Kingdom Ltd
PDD	Project Design Document
UNFCCC	United Nations Framework Convention on Climate Change
NGO	Non-Governmental Organization
IETA	International Emissions Trading Association
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor



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# 1. Introduction

#### 1.1 Objective

SGS United Kingdom Ltd has been contracted by Ecoayres Argentina, S.A. to perform an independent verification of its CDM project "Methane recovery and effective use of power generation project Norte III-B Landfill". CDM projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Certified Emission Reductions (CERs).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The emissions report conforms with the requirements of the monitoring plan in the registered PDD and the approved methodology; and
- The data reported are complete and transparent.

#### 1.2 Scope

The scope of the verification is the independent and objective review and ex post determination of the monitored reductions in GHG emission by the project activity. The verification is based on the validated and registered project design document and the monitoring report. The project is assessed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures and related rules and guidance.

SGS has, based on the recommendations in the Validation and Verification Manual, employed a risk-based approach in the verification, focusing on the identification of significant reporting risks and the reliability of project monitoring.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

#### 1.3 Project Activity and Period Covered

This engagement covers emissions and emission reductions from anthropogenic sources of greenhouse gases included within the project boundary of the following project and period.

Title of Project Activity:	Methane recovery and effective use of power generation project Norte III-B Landfill
UNFCCC Registration Number:	0928
Monitoring Period Covered in this Report	01/01/2008 to 30/04/2008
Project Participants	Ecoayres Argentina S.A.
Location of the Project Activity:	San Miguel district, Buenos Aires Province, Argentina

The proposed project activity aims to recover and utilize the landfill gas emanating from the landfill. The project is designed to be implemented in 2 phases: Phase I of the project involves the design, construction and operation of a landfill gas (LFG) collection and flaring system.

Once the quality and quantity of the methane gas available from the site is determined, Phase II of the project will be implemented which will constitute the design, construction and operation of a LFG to electricity system.

As to the Capture and Treatment System lifetime, the Flare System and the Electricity Generation System must be considered separately. A lifetime exceeding 20 and 10 years respectively has been estimated by PP.

The crediting period is 10 years starting from 01/01/2008 to 31/12/2017.

The project boundary for Phase I is the site of the proposed activity where the gas is captured and flared. The project boundary for Phase II encompasses the site of the landfill and the electricity generation



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equipment. The system boundaries for determining a combined margin grid emission factor include the national electricity grid of Argentina. Phase II is not implemented yet.



# 2. Methodology

#### 2.1 General Approach

SGS's approach to the verification is a two-stage process.

In the first stage, SGS completed a strategic review and risk assessment of the projects activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

At the end of this stage, SGS produced a Periodic Verification Checklist which, based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

Using the Periodic Verification checklist, SGS verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a site visit and a desk review of the monitoring report. This verification report describes the findings of this assessment.

#### 2.2 Verification Team for this Assessment

Name	Role	SGS Office
Emilio Doens	Lead Assessor	SGS Panama
Claudia Ottaggio	Local Assessor	SGS Argentina
Aurea Nardelli	Expert	SGS United Kingdom Limited

#### 2.3 Means of Verification

#### 2.3.1 Review of Documentation

The validated PDD, the monitoring report submitted by the client and additional background documents related to the project performance were reviewed. A complete list of all documents reviewed is attached in section 8 of this report.



#### 2.3.2 Site Visits

As part of the verification, the following on-site inspections have been performed

Location: San Miguel district, Buenos Aires Province, Argentina		
Date: 09/05/2008		
Coverage:	Source of Information / Persons Interviewed	
Review of records and interviews with project participants.	Ricardo Bocco; Daniel Murdoch	

#### 2.4 Reporting of Findings

As an outcome of the verification process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the team shall raise a New Information Request (NIR) specifying what additional information is required.

Where a non-conformance arises the team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- I. the verification is not able to obtain sufficient evidence for the reported emission reductions or part of the reported emission reductions. In this case these emission reductions shall not be verified and certified;
- II. the verification has identified misstatements in the reported emission reductions. Emission reductions with misstatements shall be discounted based on the verifiers ex-post determination of the achieved emission reductions

The verification process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification actors. These have no impact upon the completion of the verification activity.

Corrective Action Requests and New Information Requests are detailed in Periodic Verification Checklist. The Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

#### 2.5 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment Team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.



# 3. Verification Findings

#### 3.1 Project Documentation and Compliance with the Registered PDD

During the site visit (09/05/2008), it was verified that the project has been implemented as stated in the registered PDD. The physical components include the measurement equipment, the control system and the landfill gas collection system. The project boundaries are according to the registered PDD. The project is implemented according the information provided in registered PDD, using correctly the methodology ACM0001 version 4 and ACM0002 version6. The PDD stated that the crediting period is fixed and is from 01/01/2008 to 31/12/2017. This monitoring period is from 01/01/2008 to 30/04/2008. Due technical delays in the commissioning of the project, the date of the entrance in operation was 18/02/2008. For this monitoring period the project implementation only involves the design, construction and operation of a landfill gas (LFG) collection and flaring system follows the ACM0001 ver 4.

#### 3.2 Monitoring Results

When the Monitoring report was submitted by PP was raised 2 CARs, one due the project name in the cover page was wrong and need to be fixed; the other CAR was that in the MR was not included a Summary table of the monitored parameter. Both CARs were closed out in the version 2 of the monitoring report submitted by PP.

The data collected to monitor the emissions in this stage are

- 1. the total captured landfill gas (LFG) in m<sup>3</sup>;
- 2. the total flared LFG in  $m^3$ ;
- 3. the total LFG used for electricity generation purposes in  $m^3$ ;
- 4. the flare efficiency in %;
- 5. Methane fraction of LFG in %;
- 6. LFG temperature in °C;
- 7. LFG pressure in Pa;
- 8. the total electricity and/or other power source used in gas capture activities in Tj/month;
- 9. Regulatory requirements relating to LFG;
- 10. Operation time of the electrical power plant in hours

The parameters and the monitoring approach discussed in the monitoring report (Ref. 2) and verified in the project's internal system are consistent with the registered PDD (Ref. 1) and the applied monitoring methodology ACM0001 version 4. Some parameters were not reported by the project activity in this monitoring period because:

- At the time of the verification of the first monitoring period the project was not generating electricity yet (Landfill Gas to Energy (LFGTE) module was not implemented yet in the project activity), the parameters related to electricity generation are not monitored, reported or verified in this monitoring period.
- 2. According to ACM0001 version 4, the Regulatory Requirements should be recorded at the renewal of crediting period. The project has a fixed crediting period for 10 years; therefore the data is not applicable for the project. The information also complies with Section C.2.2 of the registered PDD (Ref.1).

The parameters monitored by the project activity in this monitoring period are:

- LFG total,y = LFG flare,y (total amount of landfill gas captured)
- FE (Flare efficiency)
- W<sub>CH4,y</sub> (Methane fraction of the landfill gas)
- Temperature
- Pressure
- EL<sub>Imp</sub>. (Energy consumed by project activity)



• Operation time of the electrical power plant in hours

#### Total amount of LFG captured

#### LFG total,y = LFG flare,y

Equipments specifications verified on site:

<u>Two Flow Meter</u>: Manufactured by Thermal Instrument Co, Inc.

Model 62-9/9500 / Serial No.:2007445 dated 18/09/2007; and Model 62-9/9500 / Serial No.:2007446 dated 18/09/2007.

The flare system installed at present consists of two torches. Each of these torches counts on a flow meter. The flare torches work alternatively, one or the other, and they never make it simultaneously. The installed flow meters are used to obtain data of the amount of landfill gas captured data. The certificate of the manufacture calibration was provided during the site visit (Ref. 23). According to PDD section B.7.1, "The flow meter will be subject to a regular calibration and testing regime to ensure accuracy"; during the site visit PP provide a list of all the equipment installed and used by the project; in this list is indicated the calibration frequency of the flow meter which is yearly. According with the calibration certificates provides cover this monitoring period; the next date for calibration is September, 2008.

The data of the amount of landfill gas captured is recorded every two minutes and is generated automatically through a logging system. Data Log in the system is then recorded by operator. During the site visit it was verified that the values recorded are the same that provide in the ER calculation spreadsheet.

To verify the data reported in the Monitoring Report for this monitoring period were check all the ER spreadsheets provides by PP. It was verified that the equipment registers data continuously and periodically as required by the methodology.

#### FE - Flare Efficiency

The Flare Efficiency test for both flare torches were conducted by an independent laboratory named INDUSER Lab; accredited by Argentinean Accreditation Organism (Ref 25. The FE tests submitted by PP are dated 14/03/2008 with a result of 99.9% and 19/04/2008 with a result of 100%; complying with the methodology requirement and the average result (99.9%) has been applied for this monitoring period. It is important point out that for February the Flare Efficiency test was not done; for that month PP use 90 % as default value, as it expresses the ACM0001 version 4.

#### W<sub>CH4,y</sub> - Methane Fraction of LFG

Equipments used to determine the CH<sub>4</sub> fraction:

Gas analizer: Manufactured by Hugbert Sudamerica; Model Microgas 3; Serial N° 5084; Calibration periodicity: yearly. Calibration Certificate N° 2k736 dated 30/01/2007. The information regarding with the gas analyzer was checked during the site visit; the calibration is done with patron gases available on site.

It was verified during the site visit that the methane fraction of the landfill gas data is recorded continuously through the fixed gas analyzer. The data is recorded every two minutes and is generated automatically through a logging system. Data Log in the system is then recorded by operator. During the site visit it was verified that the values recorded are the same that provide in the ER calculation spreadsheet.

#### Total LFG used for electricity generation purposes

For this monitoring period the project implementation only involves the design, construction and operation of a landfill gas (LFG) collection and flaring system follows the ACM0001 ver 4. Once the quality and quantity of the methane gas available from the site is determined; the next Phase of the project will be implemented which will constitute the design, construction and operation of a LFG to electricity system and the monitoring of the LFG used for electricity generation purposes must follow the ACM0002 ver 6 as described in the registered PDD.

#### EL<sub>Imp</sub> - Energy consumed by project activity

The electricity consumption is being monitored and is accounted as project emissions. The electricity consumed by the project was not supplied by the electric grid; it was obtained from a generator that runs on



fuel diesel. The resulting emissions are subtracted from the project's reduction calculation (see ref. 2). During the site visit was check the receipt of diesel consumption for the GenSet founded in accordance with the CER's calculation spreadsheet.

#### LFG Temperature

Equipments used to determine the LFG temperature:

Thermocouple: Manufactured by Thermo-Couple Products, Inc.; Model Thermotron 2800; Serial # Type J; calibration frequency yearly; calibration certificate dated 01/12/2007. The information regarding with the thermocouple was checked during the site visit. It was verified during the site visit that the LFG temperature data is recorded continuously through the thermocouple. The data is recorded every two minutes and is generated automatically through a logging system. Data Log in the system is then recorded by operator. During the site visit it was verified that the values recorded are the same that provide in the ER calculation spreadsheet.

#### LFG Pressure

Equipments used to determine the LFG Pressure:

Pressure Transmitter manufactured by Emerson Process Management Rosemount, Inc.; Model 3051CD2A22A1AM5B4Q4 Serial N° 1849795; calibration frequency yearly; calibration certificate dated 17/11/2007. The information regarding with the pressure transmitter was checked during the site visit. It was verified during the site visit that the LFG pressure data is recorded continuously through the pressure transmitter. The data is recorded every two minutes and is generated automatically through a logging system. Data Log in the system is then recorded by operator. During the site visit it was verified that the values recorded are the same that provide in the ER calculation spreadsheet.

#### Operation time of the electrical power plant

The GenSet working hours is measured directly using an hour meter, this data with the diesel consumption is used for the CO2 Emissions of the GenSet. During the site visit was reviewed the Gen Set operation log by the Local Assessor.

Ecoayres Argentina has implemented an integrated management system in the project (ISO 9001:2000; ISO14001:2004 and OHSAS 180001:2007)

#### 3.3 Remaining Issues, CAR's, FAR's from Previous Validation or Verification

This is the first periodic verification. No remaining issues from the validation process were found.

#### 3.4 Project Implementation

The project was implemented and the equipment installed as described in the registered PDD.

It was also verified, as stated in the PDD, that only Phase 1 (flaring) has been implemented, and that the installed equipment and monitoring plan are in line with the PDD and validation report. At the time of this verification assessment, Phase 2 had not been implemented. Furthermore, the monitoring report only refers to ACM0001 ver 4. However, when the electricity generation is up and running, the monitoring exercise must follow the ACM0002 ver 6, as described in the registered PDD

#### 3.5 Completeness of Monitoring

The reporting procedures reflect the content of the monitoring plan. The monitoring mechanism is effective and reliable

#### 3.6 Accuracy of Emission Reduction Calculations

The calculation of emission reductions is found to be correct. 2 CARs were raised, the response to NIRs was satisfactory and these were closed. The details of the reported and the verified values for all parameters are listed in section 4.



#### 3.7 Quality of Evidence to Determine Emission Reductions

Critical parameters used for the determination of the Emission Reductions are discussed above in section 3.2 above. All the data recorded is in compliance with the monitoring report.

#### 3.8 Management System and Quality Assurance

The companies involved in the project have ISO 9001:2000, ISO14001:2004 and OHSAS 180001:2007 quality assurance system implemented, therefore we can affirm that the management system the CDM project is in place; with the responsibilities properly identified and in place.

In order to verify data quality, the Companies involves in the project works in accordance with a quality assurance procedure, which establishes the operational and management structure implemented.

#### 3.9 Data from External Sources

The external data used and sources are:

Electricity Grid EF= 0.425 tCO<sub>2</sub>/MWh – Official EF for the Argentinian Grid by Energy Secretary of Argentina.

CH<sub>4</sub> GWP= 21 – Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories.

 $CH_4$  Density = 0.0007168 t $CH_4$ /m<sup>3</sup> $CH_4$  – ACM0001 ver 4.

Diesel Emission Factor = 74 kgCO<sub>2</sub>/Tj –1996 IPCC

Diesel Calorific Value = 43 Tj/Gg - 1996 IPCC

Diesel Density = 840 - 1996 IPCC



# 4. Calculation of Emission Reductions

Parameter	Reported Value	Verified Value
Total amount of landfill gas captured	1,771,918 m <sup>3</sup>	1,771,918 m <sup>3</sup>
Total amount of landfill gas flared	1,755,295 m <sup>3</sup>	1,755,295 m <sup>3</sup>
Flare efficiency	99.9%	99.9%
Methane fraction in the landfill gas $W_{CH4}$ Obs <sup>1</sup> : Data is reported as percentage (average) in the CER Spreadsheet for every month (February – April). It is not possible to have a single value reported, as data is recorded every 2 minutes (continuously) and used for ER calculation in the excel files.	52% (average)	52% (average)
GWPCH <sub>4</sub>	21 tCO <sub>2</sub> e/tCH <sub>4</sub>	21 tCO2e/tCH <sub>4</sub>
Methane Density $(D_{CH4})$	0.0007168 tCH₄/m³CH₄	0.0007168 tCH₄/m³CH₄
Gen Set working hours (hours)	1,395.46 hours	1,395.46 hours
Total Amount of fuel needed for the operation (lt/month)	9,430.86 lt/month	9,430.86 lt/month

ER<sub>y</sub> = MD<sub>project, y</sub> \* GWP<sub>CH4</sub> + EL<sub>y</sub> \* CEF<sub>electritity, y</sub> - EL<sub>imp</sub>\*EF<sub>electricity</sub><sup>2</sup>

At this moment the project doesn't generate electricity to the grid then emission reductions formula is:

 $ER_y = MD_{project, y} * GWP_{CH4}$ 

MD<sub>project, y</sub> = MD<sub>flared, y</sub> + MD<sub>electricity, y</sub>

At this moment the project doesn't generate electricity to the grid then MD<sub>project, y</sub> is equal to:

MD<sub>flared, y</sub> = LFG<sub>flared, y</sub> \* W<sub>CH4</sub> \* D<sub>CH4</sub> \* FE

 $MD_{flared, y} = (1,755,295 \text{ m}^3) * (52\% \text{ (average)}^3) * (0.0007168 \text{ tCH}_4/\text{m}^3\text{CH}_4) * (99.9\%)$  $MD_{flared, y} = 14,290 \text{ tCO}_2\text{e}$ 

As the Project is not generating electricity, and is not connected to the grid, the electricity consumption by the project had been during this period by the use of a diesel Gen Set; so the emissions produced by the Gen Set for the period was 25  $tCO_2e$ 

<sup>&</sup>lt;sup>1</sup> Data is reported as percentage (average) in the CER Spreadsheet for every month (February – April). It is not possible to have a single value reported, as data is recorded every 2 minutes (continuously) and used for ER calculation in the excel files.

<sup>&</sup>lt;sup>2</sup> The amounts of electricity or fuel needed for the operation of this biogas capture and treatment project, including the necessary suction pumps for the capture system must be monitored. The resulting emissions are subtracted from the project's reduction. Due the project is not yet connected to the grid for the operation fuel is used.

<sup>&</sup>lt;sup>3</sup> Data is reported as percentage (average) in the CER Spreadsheet for every month (February – April). It is not possible to have a single value reported, as data is recorded every 2 minutes (continuously) and used for ER calculation in the excel files.



#### GENSET CO2 EMISSIONS CALCULATION

Total tCO<sub>2</sub>e/month = Monthly Calorific Value \* Diesel EF

Total tCO₂e/month:	25	tCO <sub>2</sub> e
Monthly Calorific Value:	0.341	Tj/month
	0.008	Gg/month
	7.922	ton/month
Monthly Consumption of GenSet:	9,430.83	lts/month
Operation hours: Ave. Consumption of GenSet:	1,396.11 7.05	hours/month Its/hour

Diesel		
Emission Factor:	74.1kg CO <sub>2</sub> / Tj	
Calorific Value CV:	43 Tj / Gg	
Density:	840	

(see ER calculation spreadsheet).

Based on the verified value and applying the ACM0001 ver 4 formulas, the emission reductions for this monitoring period (01/01/2008 to 30/04/2008) are: **14,265 tCO<sub>2</sub>e** 



# 5. Recommendations for Changes in the Monitoring Plan

There are no recommendations for changes in the monitoring plan.

#### 6. Overview of Results

#### Assessment Against the Provisions of Decision 17/CP.7:

Is the project documentation in accordance with the requirements of the registered PDD and relevant provision of decision 17/CP.7, EB decisions and guidance and the COP/MOP?

Yes. The results of the compliance assessment are recorded in the verification checklist which is used as an internal report only.

Have on-site inspections been performed that may comprise, inter alia, a review of performance records, interviews with project participants and local stakeholders, collection of measurements, observations of established practices and testing of the accuracy of monitoring equipment?

Yes. Claudia Ottaggio visited the sites and undertook interviews, collected data, audited the implementation of procedures, checked calibration certificates and checked data, inter alia.

The results of the site visits are recorded in the verification checklist which is used as an internal report only.

The evidences have been checked and collected. The revised monitoring report is attached with this verification report.

Has data from additional sources been used? If yes, please detail the source and significance.

Yes, see section 3.9 of this report. The following data and parameters have been used:

Electricity Grid EF=  $0.425 \text{ tCO}_2/\text{MWh}$  – Official EF for the Argentinian Grid by Energy Secretary of Argentina.

CH<sub>4</sub> GWP= 21 – Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories.

 $CH_4$  Density = 0.0007168 t $CH_4$ /m<sup>3</sup> $CH_4$  – ACM0001 ver 4.

Diesel Emission Factor = 74 kgCO<sub>2</sub>/Tj -1996 IPCC

Diesel Calorific Value = 43 Tj/Gg – 1996 IPCC

Diesel Density = 840 - 1996 IPCC

Please review the monitoring results and verify that the monitoring methodologies for the estimation of reductions in anthropogenic emissions by sources have been applied correctly and their documentation is complete and transparent.

Yes. The monitoring methodology has been correctly applied and the monitoring report and supporting references are complete and transparent.

Have any recommendations for changes to the monitoring methodology for any future crediting period been issued to the project participant?

#### No.

Determine the reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the CDM project activity, based on the data and information using calculation procedures consistent with those contained in the registered project design document and the monitoring plan.

The data used in anthropogenic emission reduction calculation is consistent with those contained in the registered PDD and monitoring plan. The emission reduction was 28,108 tCO<sub>2</sub>e for the period 01/01/2008 to 30/04/2008 as per estimation made in the registered PDD. The actual emission reduction has been verified as 14,265 tCO<sub>2</sub>e for the same period.



Identify and inform the project participants of any concerns related to the conformity of the actual project activity and its operation with the registered project design document. Project participants shall address the concerns and supply relevant additional information.

"No such non conformity of the actual project activity and its operation with the registered project design document has been observed."

Post monitoring report on UNFCCC website

Yes, the monitoring report is available at ref. UNFCCC Project Reference Number 0928 on UNFCCC website

http://cdm.unfccc.int/Projects/DB/DNV-CUK1171431768.63/iProcess/SGS-UKL1225185658.57/view



### 7. Verification and Certification Statement

SGS United Kingdom Ltd has been contracted by Ecoayres Argentina, S. A to perform the verification of the emission reductions reported for the CDM project Methane recovery and effective use of power generation project Norte III-B Landfill and UNFCC Reference Number 0928 in the period from 01/01/2008 to 30/04/2008

The verification is based on the validated and registered project design document and the monitoring report for this project. Verification is performed in accordance with section I of Decision 3/CMP.1, and relevant decisions of the CDM EB and CoP/MoP. The scope of this engagement covers the verification and certification of greenhouse gas emission reductions generated by the above project during the abovementioned period, as reported in the first monitoring report, dated 28/08/2008 version 2.

The management of the Ecoayres Argentina, S. A is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project Monitoring Report Version 3 dated 15/12/2008. Calculation and determination of GHG emission reductions from the project is the responsibility of the management of the Methane recovery and effective use of power generation project Norte III-B Landfill. The development and maintenance of records and reporting procedures are in accordance with the monitoring report.

It is our responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the period from 01/01/2008 to 30/04/2008 based on the reported emission reductions in the Monitoring Report version 3 dated 15/12/2008 for the same period.

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these, SGS planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that this reported amount of GHG emission reductions for the period is fairly stated.

SGS confirms that the project is implemented as described in the validated and registered project design documents. Based on the information we have seen and evaluated, we confirm the following:

Project Title:	Methane recovery and effective use of power generation project Norte III-B Landfill
UNFCCC Reference Number:	0928
Registered and Approved PDD used for Verification:	PDD version 02.5 - 10/01/2007.
Methodology used for Verification:	ACM0001 version 4 & ACM0002 version 6
Applicable Period:	from 01/01/2008 to 30/04/2008
Total GHG Emission Reductions Verified:	14,265 tCO <sub>2</sub> e

#### Signed on behalf of the Verification Body by Authorized Signatory

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Signature:

Name: Siddharth Yadav Date: 23<sup>rd</sup> February 2009



#### 8. Document References

Reference List		
ID	Documents	Description
1	PDD	http://cdm.unfccc.int/Projects/DB/DNV- CUK1171431768.63/view
2	Monitoring report v1 Monitoring report v2 Monitoring report v3 and ER calculation spreadsheet	Sample the first Monitoring and spreadsheet to receive the considerations.
3	Manual Management System	DOC E0000-000 BASED IN ISO 9001- 2000/14001:2004 & OHSAS18001:2007.
4	Ecoayres note	Explaining that is part of consolidate group of companies –copies of certificates and accreditations of quality systems.
5	Organizational Chart	Descriptions of functions
6	Detail of personal of plant	Description
7	Certificates of training	Certificates of training and courses all personal.
8	Planning of training	Description of the training program
9	Procedure R0601-000	Competence, take of conscience and formation.
10	TE 0806-001	Fire Control
11	TE 0806-002	Lixiviate Control
12	TE 0806-003	Fuel and other substances Control
13	Te 0806-006	Evacuation Plan
14	Te 0806-007	Accidents
15	Te 0806-000	Emergency Response
16	Te 0806-000/1	Contingencies Records
17	Te 0806-000/2	Control elements List
18	Te 0806-000/3	Telephones List
19	Te 0806-000/4	Personnel Roles for emergency
20	Te 0806-000/5	Alarms Codes for emergency
21	Te 0806-000/6	Siren Control Format
22	F/E0707-000/01	Equipment List
23	Calibacion.pdf	Calibration certificates and description of equipment.
24	Argentinian Emission Factor - Energy Secretary of Argentina.pdf	Official Grid Emission Factor for the Argentinian Grid.
25	Induser OAA accreditation	Certificate of Accreditation of INDUSER Laboratory.

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