



July 1 – December 31, 2010 Reporting Period
Verification Report for the McKinney Landfill Project

Prepared for:
Montauk Energy Capital, LLC

February 11, 2011

Ruby Canyon Engineering
743 Horizon Ct. Suite 385
Grand Junction, Colorado 81506
(970) 241-9298

Table of Contents

1.0 Introduction	1
1.1 Project Background & Site Description	1
1.2 Responsible Party	1
1.3 Verification Team.....	1
1.4 Objectives	1
1.5 Scope	2
1.6 Verification Criteria.....	2
2.0 Verification Activities Summary.....	2
3.0 Verification Findings.....	3
3.1 Assessment of the GHG Reduction Project Operations	3
3.2 GHG Project Boundary (sources, sinks and/or reservoirs).....	4
3.3 Project Eligibility Criteria	4
3.4 Assessment of Information System Controls	7
3.5 Assessment of GHG Emissions Reductions Calculations	9
4.0 Verification Results	11
4.1 Findings Overview	12
5.0 Verification Opinion.....	13

1.0 Introduction

Ruby Canyon Engineering (RCE) was contracted by Montauk Energy Capital, LLC (Montauk) to perform the verification of the McKinney Landfill Project (“Project”) for the reporting period July 1, 2010 through December 31, 2010 to the Climate Action Reserve. The Project involves GHG emission reductions from the capture and use of methane from the municipal solid waste landfill located in McKinney, Texas.

1.1 Project Background & Site Description

The McKinney Landfill is an inactive municipal solid waste sanitary landfill that covers nearly 65 acres and is located approximately 30 miles north of Dallas Texas in the town of McKinney in Collin County, Texas. The McKinney Landfill began receiving waste in 1968 and ceased receiving municipal solid waste in 2004 and only accepted construction and demolition debris until its closure on December 31, 2008.

The North Texas Municipal Water District (NTMWD) entered into an agreement on July 10, 2007 with McKinney LFG, LLC, a wholly owned subsidiary of Montauk. The agreement transferred all rights to the landfill gas (LFG) and environmental attributes associated with the McKinney Landfill from NTMWD to McKinney LFG, LLC. The rights to the LFG and all the associated environmental attributes were transferred from McKinney LFG, LLC to Montauk through a subsequent contract agreement that became effective January 1, 2010. The Project consists of a LFG collection system and one open flare that combusts the collected gas. The Project has the option to install internal combustion engines to combust the gas and generate electricity in the future.

1.2 Responsible Party

Montauk Energy Capital, LLC
680 Andersen Drive
Foster Plaza 10, 5th Floor
Pittsburgh, PA 15220

1.3 Verification Team

The RCE verification team consisted of the following individuals who were selected based upon verification experience and knowledge of the landfill methane sector.

Lead Verifier: Sally Phipps
Team Member: Nina Pinette
Senior Reviewer: Bonny Crews

1.4 Objectives

The goal of the verification activities was to ensure that the claimed GHG emission reductions were complete, consistent, accurate, transparent and permanent and that the Project was in compliance with CAR project additionality, monitoring and reporting requirements. Furthermore, the verification activities ensure that the data provided to RCE is well documented and free of any material errors or omissions.

1.5 Scope

The scope of the sub-annual verification consisted of the following independent and objective activities:

- Review the reporting period's Project Design Document
- Review the reporting period's Project Monitoring Plan
- Conduct a site visit
- Review the Project Data Acquisition & QC Procedures
- Review the Project's baseline emission reductions and check that the baseline and Project boundaries have not changed
- Review the Project's emission reduction calculations
- Review of the Project documents and data against the requirements of the CAR Landfill Reporting Protocol 2.0, the Errata and Clarifications to Landfill Project Reporting Protocol Version 2.0 (January 4, 2011), the Landfill Project Verification Protocol 2.0, the CAR Program Manual (March 16, 2010), and the CAR Verification Program Manual version 2.0 (December 20, 2010).
- Issue requests for additional data, clarifications and corrective actions as necessary
- Issue a verification report, list of findings and opinion to Montauk and CAR

1.6 Verification Criteria

Table 1 Sub-annual Verification Criteria

Standard of Verification	Climate Action Reserve Landfill Reporting Protocol 2.0, Errata and Clarifications to Landfill Project Reporting Protocol, Version 2.0, Landfill Project Verification Protocol 2.0, CAR Program Manual, CAR Verification Program Manual version 2.0 and the International Standards Organization (ISO) 14064-3 Specification with guidance for the validation and verification of greenhouse gas assertions
Verification Process	CAR and ISO 14064-3
Level of Assurance	Reasonable assurance
Materiality	A 97 percent quantitative materiality threshold as per section 1.6.4 of the Verification Program Manual

2.0 Verification Activities Summary

The verification of the July 1, 2010 through December 31, 2010 reporting period was a repeat sub-annual verification of the Project. RCE had verified two previous reporting periods for the Project and had conducted one site visit during the first verification cycle. The current verification began with Montauk selecting the RCE as the verification body. A site visit was required for this verification cycle and was conducted on January 10, 2011.

Prior to starting the verification, RCE developed a site visit and desktop verification plan that was followed throughout the verification. The verification plan consisted of the following activities:

- Completion of a Project COI/NOVA renewal form by RCE to identify any potential conflict of interest with the Project or Project developer. The COI/NOVA form was submitted to CAR's

online website and the COI assessment revealed no conflicts of interest and was approved by CAR on December 09, 2010.

- A teleconference verification kick-off meeting was held with Sharon Frank and Adam Andara of Montauk on December 21, 2010. During the kick-off meeting RCE reviewed the verification objectives and process, the verification schedule, and requested the verification background documents.
- RCE received the background verification documents by email from Montauk starting on January 5, 2011 through February 9, 2011 and two CDs of the FTP site data was received the week of January 17, 2011.
- RCE performed a strategic review and risk assessment of the received data and support documents in order to understand the scope and areas of potential risk in the GHG emissions reductions.
- Both a risk-based site visit and a desktop sampling plan were developed based upon the strategic review and risk assessment. The verification plan and sampling plans were used throughout the verification and were revised as needed based upon additional risk assessments.
- A site visit was conducted on January 10, 2011
- A risk-based desk-top review of the submitted verification documents was performed. The desk top review included an assessment of the GHG calculation methods and inputs, source data completeness, GHG management and monitoring systems, evidence of regulatory compliance and record retention practices.
- Requests for Additional Data, Clarifications & Corrective Actions were submitted to Montauk during the verification.
- A senior review of the verification sampling, report and opinion was conducted.
- A final verification report, verification opinion and list of findings were developed.
- An exit meeting was held with the client on February 11, 2011.

3.0 Verification Findings

3.1 Assessment of the GHG Reduction Project Operations

The Project currently collects LFG from the McKinney Landfill and destroys it via combustion through an open candlestick flare. The Project Design Document (PDD) allows for LFG to be utilized in two Caterpillar 3520 lean burn internal combustion engines (to produce electricity) each with a rated capacity of 1.6 MW. However, no internal combustion engines were in operation and the verified Project activity consisted only of the LFG collection system and candlestick flare.

The LFG collection system consists of a series of wellheads that pull gas from 36 vertical and horizontal extraction points. The collected gas is pulled by a blower into the main header line and routed to the flare skid. Excess moisture is removed from the gas by various knockout vessels before it passes through the flow meter and on to the candlestick flare. Prior to the installation of the Project LFG collection and conveyance system a passive solar flare that is connected to the landfill leachate riser system was installed at the site. The solar flare is not utilized unless enough gas collects in the leachate lines to activate the flare.

During the site visit and desktop review RCE did not observe any evidence that Project design or operational boundaries had changed from the previous verification. The landfill remains closed, there were no new wells added to the Project and the caterpillar engines have not been installed. However, a new Thermal Instruments 62-9/9500 flow meter (serial number 2010041) was installed during the January 1 to June 30, 2010 reporting period.

3.2 GHG Project Boundary (sources, sinks and/or reservoirs)

According to the CAR Landfill Project Reporting Protocol 2.0 only CO₂ and CH₄ GHGs are included from the baseline and Project activities. The GHG emission sources resulting from the baseline and the Project activity must be deducted from the Project GHG emission reductions. GHGs emitted result from methane oxidized in the soil, methane vented to the atmosphere, methane destroyed in the pre-Project and Project destruction devices, fossil fuel use, and electricity use.

Table 2 lists the sources of GHG emissions reviewed during the verification of the Project.

Table 2 Project GHG Sources, Sinks and Reservoirs

Activity	GHG Sources, Sinks & Reservoirs
Baseline	• CH₄ vented to the atmosphere. • CH₄ destroyed in the passive flare. • CO₂ from the oxidation of CH₄ by soil bacteria. As the landfill is not covered with a synthetic liner, a 10 percent oxidation factor resulting from natural oxidation by soil bacteria was applied to the baseline emissions.
Project	• CO₂ from the combustion of CH₄ in the flare. • CO₂ from the combustion of fossil fuels used during operation and maintenance activities for the Project activity. • CO₂ resulting from the consumption of imported electricity.

3.3 Project Eligibility Criteria

The CAR Landfill Project Reporting Protocol 2.0 specifies three eligibility rules that a GHG Project developer must meet in order to register reductions with CAR. The three eligibility rules in the CAR Landfill Reporting Protocol 2.0 and the CAR Program Manual (March 16, 2010) are location, Project operation start date, and additionality requirements that consist of meeting the performance standard and exceeding any legal requirements. RCE had previously verified the Project start date, location and baseline emissions. RCE observed no changes in the Project start date, baseline emissions and location from the last verification cycle.

RCE performed a complete additionality assessment to ensure that the Project met the Performance Standard Test and Legal Requirements Test. In addition, the Project developer must provide evidence of exclusive ownership rights to the GHG reductions and evidence that the Project is in compliance with all applicable local, state and Federal requirements. RCE reviewed the Attestation of Voluntary Implementation, Attestation of Regulatory Compliance and Attestation of Title as well as supporting evidence that the Project was not required to combust their LFG, was in compliance with all applicable regulations and that Montauk Energy Capital, LLC has exclusive ownership of the generated GHG emission reductions.

Below is a summary of the CAR eligibility rules and the Project's compliance to each requirement.

- Eligibility Rule 1: Location:

The Landfill Project Reporting Protocol 2.0 states that eligible projects must be located in the United States and its territories. The Project is a US-based landfill located in the town of McKinney in Collin County, Texas, USA and therefore meets this eligibility requirement.

- Eligibility Rule 2: Project Start Date:

The Landfill Project Reporting Protocol 2.0 dated November 18, 2008 states that pre-existing projects must have a start date on or after January 1, 2001 and must be listed with CAR twelve months from the effective date of the protocol. The start date is defined as the date at which a qualifying destruction device becomes operational. The McKinney Project began flaring gas on August 1, 2008.

To confirm the Project start date RCE examined The Notice of Construction/Installation and Startup of the Landfill Gas Utility Flare letter sent to the Texas Commission on Environmental Quality (TCEQ), the flare purchase order and the Flare Performance Test Report. The reviewed evidence in combination with interviews with the landfill personnel concerning the Project start date was sufficient evidence to affirm that the Project began flaring gas on August 1, 2008 and therefore meets the Project start date requirements.

- Eligibility 3: Additionality:

According to the CAR additionality requirements Project Developers must pass a Performance Standard test and a Legal Requirements test in order to show that the Project reductions are above and beyond business as usual.

Performance Standard Test

The McKinney Landfill had previously installed a non-qualifying passive solar flare prior to the Project start date. The non-qualifying destruction device was installed on the leachate collection riser system in 2006.

RCE reviewed evidence of the pre-project passive solar flare that included the Landfill Solar Gas Flare permit dated June 14, 2006 and the McKinney Pollution Control Project Air Permit Registration dated December 21, 2007 which includes the passive flare. The reviewed evidence was sufficient for RCE to conclude that the pre-project flare was a non-qualifying destruction device that was installed voluntarily. The Project only considers LFG that was destroyed beyond that resulting from pre-project destruction system as additional.

Therefore, the Project proponent meets the performance standard threshold under Option 2 of the Landfill Project Reporting Protocol Performance Standard Test. Option 2 states "If the landfill was previously collecting and destroying LFG using a destruction device which would not qualify under this protocol (e.g. passive flares), the project is additional under the following condition:

- a. "Only the LFG destroyed beyond that resulting from the pre-project collection and destruction system is considered additional (i.e. those reductions resulting from the implementation of the new GHG reduction project)."

Legal Requirement Test

For the Legal Requirement Test, Project proponents must ensure that emission reductions achieved by the Project would not have occurred in the baseline case or due to federal, state, or local regulations.

In particular, the McKinney Landfill is subject to NSPS regulation which requires the facility to conduct Non-Methane Organic Compound (NMOC) emission rate testing. RCE

reviewed the October 25, 2007 Tier 2 NMOC test results at 41.5 Mg/year and the closure report indicating that the McKinney Landfill should not have to recalculate its NMOC emissions within the next 5 years (through 2011) unless additional information on Tier 2 testing is required by TCEQ. No evidence was found that the McKinney Landfill should have to recalculate its NMOC emissions or that the McKinney Landfill has continued to accept waste which would increase its NMOC emissions.

The McKinney PDD and the McKinney Monitoring Plan detail the monitoring methods, frequency and the project parameters monitored. Montauk also performs an annual environmental and legal requirements assessment and records their findings in the McKinney Environmental Audit Checklist to ensure the Project is not required to collect and combust their LFG.

RCE reviewed the PDD, Monitoring Plan and the annual McKinney Environmental Audit Checklist dated January 3, 2011 and confirmed that there is a clear and rigorous method in place to ensure the Project passes the CAR Legal Requirements Test. RCE also examined the Project's Attestation of Voluntary Implementation, on file with CAR that was signed by the Vice President and General Council of Montauk Energy Capital, LLC on January 1, 2011. The review indicated that the Project developer is following their procedures and is in compliance with CAR's Program Manual (March 16, 2010) and the Landfill Project Reporting Protocol 2.0 requirements.

Additionally, there are no local, Texas or Federal requirements for the installation of a LFG collection and destruction system at the McKinney Landfill. Therefore the Project passes the legal requirements test.

- Regulatory Compliance

RCE examined the procedures outlined in the PDD and McKinney Monitoring Plan used to ensure their regulatory compliance and variety of submitted evidence demonstrating their current compliance. Evidence reviewed includes the Project's Attestation of Regulatory Compliance, signed by the Vice President and General Council of Montauk Energy Capital, LLC on January 1, 2011, on file with CAR. Other evidence reviewed includes the annual McKinney Environmental Audit dated January 3, 2011, air permits that included the flare permit and Title V air permit, waste water and solid waste permits, and an email attestation from the NTMWD.

Starting in 2011 the McKinney Landfill and Montauk intend to install gas engines to combust collected LFG and generate electricity. The installation required the issuance two new solid waste permits from TCEQ to authorize the modification of the Municipal Solid Waste (MSW) permit and the operation of the gas engines. RCE reviewed the two new permits and verified that they were included in the McKinney Environmental Audit. Additional evidence reviewed included an email from the NTMWD dated December 29, 2010 which indicated that other than the two new permits, the McKinney Landfill did not have any new environmental compliance requirements in the third and fourth quarters of 2010.

During RCE's review, no evidence of non-compliance was found, and the procedures for ensuring regulatory compliance in the Project PDD and Monitoring Plan were being properly followed.

- Ownership of Generated Reductions

The NTMWD entered into a Landfill Gas Rights Lease agreement on July 10, 2007 with McKinney LFG, LLC; a wholly-owned subsidiary of Montauk that transferred all rights to the LFG and environmental attributes associated with the McKinney Landfill to McKinney LFG, LLC. In September 2010, Montauk developed a contract agreement titled the “Environmental Attribute Assignment” that transferred all the rights to the LFG and all the associated environmental attributes from McKinney LFG, LLC to Montauk as of January 1, 2010.

The Environmental Attribute Assignment confirmed that Montauk is the sole owner and operator of the Project and sole owner of the emission reductions associated with the Project. To verify the ownership the Project’s GHG emission reductions, RCE had reviewed during previous verifications the Landfill Gas Rights Lease agreement and the Environmental Attribute Assignment.

To verify Montauk’s continued ownership of the generated emission reductions, RCE conducted interviews with key personnel and reviewed the Attestation of Title, signed by the Vice President and General Council of Montauk on January 1, 2011 and on file with CAR, for evidence of ownership of the generated emission reductions.

3.4 Assessment of Information System Controls

A verification site visit was conducted on January 10, 2010 where the majority of the GHG management systems review took place and was achieved through observing the onsite procedures and interviewing the Field Technician. The onsite review included an assessment of the Project data collection, processing and handling procedures, recordkeeping and data storage, the quality control and assurance procedures, and a field tour of the Project equipment.

RCE reassessed the GHG management systems during the site visit and desktop verification of the current reporting period. The sub-annual review focused on assessing the changes from the last verification cycle and the continued compliance of the data gathering, quality control and assurance procedures, GHG management and monitoring procedures, and record retention systems to the PDD, Project Monitoring Plan, Data Acquisition Procedures, CAR Landfill Project Reporting Protocol 2.0, Errata and Clarifications (February 4, 2011), and the CAR Program Manual (March 16, 2010) requirements.

The primary data gathered for the Project includes LFG flow, pressure, temperature, and methane content of the LFG. A Thermal Instrument 62-9/9500 Flow Meter continuously monitors the flow after the blower and a condensate knockout prior to combustion in the candlestick flare. The position of the flow meter is adequate to ensure laminar flow. The flow meter was replaced in March 2010 and was factory calibrated to the standard conditions of 60°F and one atmosphere prior to installation, and was quarterly calibrated in the field using a single point test with Pitot tube and manometer. During the desk-top verification RCE examined the Thermal Instrument 62-9/500 (serial number 2010041) Flow Meter factory calibration certificate dated February 11, 2010 and the quarterly field calibration reports dated September 23, 2010 and December 15, 2010. The calibration certificate and field calibration reports demonstrated that the flow meter was in calibration and the Project developer calibrated the flow meter according to the CAR Landfill Project Reporting Protocol 2.0.

RCE had observed during the first verification site visit the Flow Meter Pitot tube and manometer field calibration procedures and the readings recorded into the field notebook. RCE re-examined the field notebook and interviewed the Field Technician during the repeat site visit and verified that the field calibration procedures were followed and the Field Technician accurately recorded the manometer results. RCE also examined the Gas Flow Calculation – Pitot tube spreadsheets that contain the manometer field calibration results and verified that the flow meter was accurate within +/-5 percent. The manometer was factory calibrated by Dwyer Instruments, Inc. on March 12, 2010 and the calibration certificate was provided to RCE. Thus the annual calibration requirement for the manometer was satisfied.

The McKinney Field Technician records the monthly and quarterly equipment cleaning and inspections into dedicated field logs titled the “McKinney Flare Station Inspection Log”. RCE reviewed copies of the third and fourth quarter McKinney Flare Station Inspections Logs dated 7/20/2010, 8/23/2010, 9/20/2010, 10/13/2010, 11/28/2010 and 12/15/2010. The Project equipment is repaired on an as needed basis by the Field Technician or a contracted third party. The review of the McKinney Flare Station Inspection Logs confirmed that the Project monitoring equipment was cleaned and inspected according to the CAR Landfill project Reporting Protocol 2.0 protocol requirements.

The LFG methane content was continuously monitored using an ABB Natural Gas Chromatograph Model #NGC 8200. The instrument is programmed to perform daily self calibrations against reference gases of known concentrations. The Project LFG flow, pressure, and methane content is digitally recorded by a Yokogawa FX106 paperless chart recorder in one minute intervals and transmitted to the Montauk FTP internet site on an hourly basis. The data is downloaded weekly from the Montauk FTP site and the LFG flow (standard cubic feet per day) and the average methane content of the LFG for each day is entered by the Field Technician into a spreadsheet title “McKinney LF Flare Log”. RCE conducted a risk-based review of the McKinney LF Flare Logs during the desktop emission reductions calculations review.

The Gas Chromatograph is calibrated quarterly by a third party ABB representative. The Gas Chromatograph calibration reports titled “Totalflow Laptop Calibration Results Report” dated September 19, 2010 and December 17, 2010 were submitted to RCE for review. The review of the ABB instrument calibration reports indicated that the Gas Chromatograph was in calibration and recorded gas analysis data accurately.

The operation of the flare is continuously monitored using a thermocouple located within the flare shroud to record the temperature and operating hours of the flare. Temperature readings are transmitted to the Yokogawa recorder and electronically transmitted to the Montauk FTP internet site on an hourly basis. An automatic valve is used to stop flow to the flare if the flame is extinguished. If the temperature drops below the specified threshold of 300°F the flare will shut down and the temperature drop will be reflected in the Yokogawa data. In addition, site personnel observe the flare and notify the Field Technician in the event the flare is inoperable. All instances when the flare is down are recorded into the McKinney LF Flare Log.

The Yokogawa data logger has a compact flash card with 2GB capacity and can retain approximately two months worth of raw data. In addition, data from the FTP website is downloaded weekly and transferred to CDs for storage. The data transfer from the FTP site to the McKinney LF Flare Logs and the data quality control and assurance procedures are described in a Monitoring Plan and PDD supporting document titled “Data Acquisition Procedures”. RCE reviewed the Data Acquisitions Procedures document and verified that the procedures were in

conformance with CAR Landfill Gas Project Protocol 2.0 requirements and that they were followed by Montauk.

No changes were made to the Project Monitoring Plan from the last verification cycle. However, Montauk updated the PDD to include the latest Environmental Audit Checklist and to state that the LFG Thermal Instruments Flow Meter installed in February of 2010 was calibrated to 60°F and one atmosphere standard conditions. RCE verified that Montauk followed their Monitoring Plan and PDD and complied with the CAR Landfill Project Reporting Protocol 2.0 and CAR Program Manual requirements during the July 1 through December 31, 2010 reporting period.

3.5 Assessment of GHG Emissions Reductions Calculations

The emission reduction calculations assessment included a review of the Project assumptions, raw data inputs and accuracy of calculations. RCE assessed the formulas and raw data inputs used to determine the emission reduction calculations as described in the McKinney PDD and the calculation spreadsheet titled “McKinney Calcs 2nd Half 2010” in a similar manner to the previous verification.

RCE first assessed the completeness of the raw data and how the data was transferred to the calculation spreadsheet. Next the formulas and raw data inputs were reviewed for compliance with the Landfill Project Reporting Protocol 2.0. Lastly RCE recalculated the GHG emissions and reductions and compared the results to Project calculations to determine if the GHG emissions were materially correct.

Risk-based samples of the Project raw daily data from the Montauk FTP site DDR files were compared to the daily gas flow volumes and methane gas concentrations recorded in the calculation spreadsheet and McKinney LF Flare Logs. The fossil fuel use and electricity use raw data from the invoices and receipts were also compared to the numbers used in the GHG emissions calculations. RCE sampled approximately 60 percent of the raw daily FTP site Project data and 100% percent of the electricity and fossil fuel consumption invoices. RCE selected samples based upon a risk analysis and sampled all instances of missing data or downtime. The selected samples were examined for data transcription tests, data completeness and accuracy. No material errors in the raw data or data transfers from the Yokogawa site to the flare logs or calculation spreadsheets were identified.

The GHG emissions calculations, pre-Project deduction calculations and the Project emission reduction calculations were reviewed for compliance to the CAR Landfill Project Reporting Protocol 2.0 calculation methodologies demonstrated in equations 5.1, 5.2, 5.3 and 5.4 of the protocol. A 96 percent destruction efficiency is assigned to the Project’s combustion device and applied accordingly in emission reduction calculations. Because the landfill does not have a synthetic liner, a 10 percent discount was applied to the baseline scenario and the pre-project methane destruction for bacterial oxidation of methane under the cap. RCE examined 100 percent the Project calculation methods and compared them to the protocol. RCE found material and non-material errors in the GHG calculations that were corrected by Montauk before the close of the verification.

RCE checked the accuracy, completeness and applicability of the calculations used to quantify the monthly CH₄ destroyed by the Project candlestick flare and the pre-Project deductions from the passive solar flare. Since the Thermal Instruments flow meter installed in March of 2010 records standard conditions at 60°F and one atmosphere, the flow readings did not need to be adjusted for temperature and pressure. The total volume of LFG per day was determined by

taking the sum of the LFG recorded for each of the one minute time intervals recorded during the day. Any time intervals where the LFG temperature readings fell below the low temperature threshold of 300 °F are voided out and no emission reductions were claimed for the time interval.

During the reporting period there were instances of missing data in July and September 2010. Montauk entered the missing data calculations into the McKinney LFG Flare Log that utilized the CAR 2.0 Errata and Clarifications to Landfill Project Reporting Protocol, Version 2.0 Data Substitution calculation methods. RCE verified the accuracy of the missing data substitutions and verified their compliance to the data substitution guidance. There were also instances when the flare was down during the months of July, August, September, October and November. RCE examined all instances of downtime and verified that no GHG emissions were claimed for these periods.

The net amount of methane destroyed by the Project was calculated per month, then summed for a six month total and converted into CO₂ equivalents (CO₂e). Project emissions for the McKinney Landfill consisted of indirect emissions of CO₂ from electricity consumption and direct emissions of CO₂ from the combustion of propane to assist the flare and the consumption of diesel in the onsite Kubota 4x4 vehicle. The pre-Project deductions in CO₂e consisted of the six month total of the monthly LFG that could be destroyed by passive solar flare that was installed before the Project activity.

The Project emissions were calculated from the product of activity data multiplied by an appropriate emission factor. The total Project GHG reductions in CO₂e were calculated by subtracting the Project Emissions and the pre-Project deductions from the net amount of methane destroyed by the Project in CO₂e. RCE determined that the emission reduction calculations followed the CAR Landfill Project Reporting Protocol 2.0 and found no material misstatements during the final review of the Project GHG reductions calculations and results.

To assess the trend in the Project emission reductions RCE compared the final emission reductions for September 1, 2009 through December 31, 2010. RCE quantified the average monthly emission reductions per reporting period and reviewed the trend in the monthly reductions between the reporting periods. The comparison indicated a fluctuating growth trend in the average monthly emission reductions from the first reporting period to the fifth reporting period. There was a decrease of 6.19 percent in the second reporting period and a significant increase of 17.16 percent in the third reporting period. The emission reductions dropped from the fourth reporting period to the fifth reporting period by approximately 7.58 percent. The emission reductions from each reporting period are summarized in **Table 3**.

Table 3 Summary of the Yearly Emission Reductions

Reporting Period	1	2	3	4	5
Reporting Period Dates	Sep 1 - Dec 31, 2008	Jan 1 – June 30, 2009	July 1 - Dec 31, 2009	Jan 1 – June 30, 2010	July 1 – Dec 31, 2010
Months	4	6	6	6	6
Emission Reductions (metric tons CO ₂ e)	28,176	39,799	48,042	49,548	46,060
Emission Reductions Monthly Average (metric tons CO ₂ e)	7,044	6,633	8,007	8,258	7,676
Percent Increase per Monthly Average		-6.19%	17.16%	3.13%	-7.58%

The Project Field Technician informed RCE that the McKinney Landfill has been going through the process of closure since 2008 and is currently going through the final stages of the closure. During the closure process some of the 4 inch sub-headers had to be removed and some had to be temporarily reinstalled in order to preserve the integrity of the gas collection system. Due to removal and reinstallation of the gas collection system sub-headers, the flow of the LFG going to the Project fluctuated throughout each reporting period. Once the final landfill grade is reached all the sub-headers will be reinstalled and the Field Technician expects the flow of the LFG to become much more consistent.

The Field Technician also informed RCE that flare shutdowns, built up condensate and draining of the condensate will also affect the flow of LFG to the Project. Evidence of the sub-header adjustments can be found in the Field Technician's field notes and evidence of any flare shutdowns can be found in the Flare Downtime Logs. Based on RCE's review, the primary reason for the observed fluctuations in the emission reductions per reporting period appears to be the removal and reinstallation of the gas collection system sub-headers.

4.0 Verification Results

Montauk provided sufficient evidence and good documentation of their emission estimates, data collection procedures, monitoring and quality control procedures. The verification process focused on verifying the sub-annual emissions estimates and the source data used by Montauk Energy Capital, LLC to quantify the emission reductions in accordance with the CAR Landfill Project Reporting Protocol 2.0. The following is a summary of the verification results.

The Project proponents reported 46,060.62 metric tons of CO₂e as per the information provided in the McKinney Calcs 2nd Half 2010 spreadsheet dated February 9, 2011. During the verification, some material and non-material misstatements were identified that necessitated corrective actions by the Project proponent. All misstatements were addressed by Montauk and RCE found no misstatements during the final review.

The emission reductions verified are as follows:

Table 4 Emission Reductions Verified for July 1, 2010 through December 31, 2010

Emissions Verified	CO₂e (metric tons)
Baseline Emissions	48,681
Project Emissions	32
Pre-Discount	2,589
Total Emission Reductions	46,060

4.1 Findings Overview

During the verification process, RCE made requests for Clarifications, Corrective Actions and Supplemental Documentation to complete the verification. According to RCE's verification procedures all Corrective Actions must be addressed by Montauk before a positive verification opinion will be submitted. The details of these requests are documented in the RCE List of Findings and attached separately from this report.

5.0 Verification Opinion

RCE conducted a risk-based analysis of the McKinney Landfill Project (“Project”) GHG assertion where RCE performed a strategic review of the Project data and evidence. Based upon the processes and procedures and the evidence collected, RCE concludes with a reasonable level of assurance that the Project emission reductions resulting from the capture and destruction of LFG during the reporting period July 1, 2010 through December 31, 2010 can be considered:

- in conformance with the CAR Landfill Project Reporting Protocol 2.0 standards
- without material discrepancy at a level of 97 percent, and
- verified with a reasonable level of assurance.

The verified Emission Reduction CRTs are listed in the **Table 5**.

Table 5 Emission Reductions Verified for July 1, 2010 through December 31, 2010

Emissions Verified	CO ₂ e (metric tons)
Emission Reductions	46,060

Lead Verifier Signature



Sally Phipps

Senior Reviewer Signature



Bonny Crews