



**GREENHOUSE GAS REPORT for
CARBON CREDIT SOLUTIONS INC. TILLAGE PROJECT #3**

FEBRUARY 2010

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Introduction

Carbon Credit Solutions Inc. ("CCS") uses the Specified Gas Emitters Regulations Quantification Protocol for Tillage System Management Version 1.3 February 2009 which can be found in the Offset Project Plan for CCS Tillage Project #3 (February 2010) attached Appendix A along with the Specified Gas Emitters Regulations Additional Guidance for Interpretation of the Quantification Protocol for Tillage System Management for Carbon Offsets in Alberta Version 1 February 2008 ("Tillage Protocol") also found in the Offset Project Plan for CCS Tillage Project #3 (February 2010) attached as Appendix A which sets out the requirements for quantification of greenhouse gas (GHG) emission reductions associated with a change from conventional or full tillage (FT) to reduced till (RT) or no-till (NT) on Canadian Prairie Provinces agricultural soils. Carbon Credit Solutions Inc. Tillage Project #3 referred to as "the Project". The Project consistently followed the process described in the Offset Project Plan for Tillage Project #3 (February 2010) attached as Appendix A.

The verification process, using the CAN/CSA-ISO 14064 Part 3 standards has been used to ensure we have:

- enhanced our integrity through the GHG quantification;
- provided credibility, consistency, and transparency;
- facilitated in the development and implementation of the GHG management strategies and plans;
- provided assurance in the development and implementation of our Project;
- developed strong materiality in the development and implementation of our Project;
- ensured competence and transparency in tracking performance and progress of our Project;
- provided solutions and identified the GHG risks or liabilities;
- presented sufficient strength to ensure investor confidence; and
- provided clarity and conservativeness in the crediting and trading of the CCS developed GHG emission reductions or removal enhancements.

To demonstrate that the CCS Project met the requirements under the Tillage Protocol, CCS has collected and can supply sufficient evidence to demonstrate that:

- Farms included within the CCS Project were producing annual crops on the applicable land;
- Farms in the CCS Project did operate on the applicable land in a no-till or reduced till system as defined in the Tillage Protocol;
- The quantification of reductions achieved by the CCS Project is based on actual measurement and monitoring (except where indicated in this protocol) as indicated by the Tillage Protocol; and
- The Project has met the requirements for offset eligibility as specified in the applicable regulation and guidance documents for the Alberta Offset System.

The Verification Report was completed in February, 2010 by ICF International and covered the period of time from January 1, 2002 to December 31, 2009.

1. Project Scope

This Project consists of the aggregation of greenhouse gas emission reductions generated from the reductions of greenhouse gas emissions through the change in best management practices used by participants in the implementation of no-till and/or reduced till systems on agricultural lands situated in

the Province of Alberta. CCS, as an aggregator, has collected greenhouse gas emission reductions created by individual farm participants in order to provide sufficient quantities of greenhouse gas emission reductions as required by interested buyers. These greenhouse gas emission reductions have been generated in accordance with the Tillage Protocol. Each participant provided land use information for each quarter section. The CCS software program tracks the information as the CCS data input team member makes each entry. The information is confirmed by the data input team member and farm records are available in each file. The lands must comply with the definitions provided by the Tillage Protocol. Evidence is provided by each participant in order to qualify for entry into the Project. The quantification of reductions achieved by the Project are based on actual measurements and monitoring. Using the Tillage Protocol as a guidance document, each participant provided evidence to ensure all eligibility was met and all criteria was followed.

2. Project Description & Details

The Project includes the aggregation of greenhouse gas emission reductions generated from individual participants and their lands within each individual farm operation. In this regard, the scope of the Project may vary from year to year as more participants join the Project. The lands included within this Project will be an accumulation of farm operations located entirely within the Province of Alberta. Ecoregions include Dry Prairie and Parkland. These ecoregions are determined by our software program based on the legal land description entered into the software. The Project consistently followed the process described in the Offset Project Plan for Tillage Project #3 (February 2010) attached as Appendix A.

The time period to be covered in the initial verification audit will be from January 1, 2002 to December 31, 2009. Subsequent verification audits will occur on a yearly basis examining the previous year's data.

3. GHG Calculations & Assertion

The GHG reductions or removals (in tonnes CO₂e) were calculated, including clearly identifying all inputs, emission factors, equations and methods using the Specified Gas Emitters Regulations Quantification Protocol for Tillage System Management Version 1.3 February 2009 along with the Specified Gas Emitters Regulations Additional Guidance for Interpretation of the Quantification Protocol for Tillage System Management for Carbon Offsets in Alberta Version 1 February 2008 using their inputs, tables, emission factors, equations and methods as outlined within section 2.5 Quantifications of Reductions, Removals and Reversals of Relevant SS's. The Offset Project Plan for Tillage Project #3 describes the calculation methodologies. Our process described in the Offset Project Plan for Tillage Project #3 has been consistency followed.

Reduced/No Tillage

The coefficients and calculations used by the CCS software program in the calculation of reduced/no tillage greenhouse gas emission reductions uses the coefficients and calculations specified in the Tillage Protocol.

Specified Gas Emitters Regulations Quantification Protocol for Tillage System Management Version 1.3 February 2009 provides an explanation of the calculations and coefficients used in the Tillage Protocol. In **Table 1** below, the column titles provides the equation used to calculate default coefficients use in calculating greenhouse gas emission reductions. The baseline adjusted default coefficients to multiply by the number of hectares.

Table 1

Tillage Change	Emission Factor	* Assurance Factor \neq	+ Nitrous Oxide Reduction ¥	+ Energy Reduction €	= Total
Parkland					
FT to NT	0.36	0.875	0.019	0.075	0.41
FT to RT	0.02	0.875	0.019	- 0.010	0.027
Dry Prairie					
FT to NT	0.20	0.925	0.005	0.030	0.22

Specified Gas Emitters Regulation Quantification Protocol for Tillage System Management Version 1.3 February 2009 also provides an explanation of the calculations and coefficients used in the Tillage Protocol when irrigation occurs in Dry Prairie. In **Table 1a** below, the column titles provides the equation used to calculate default coefficients use in calculating greenhouse gas emission reductions when irrigation has occurred on lands in the Dry Prairie zone. The baseline adjusted default coefficients to multiply by the number of hectares.

Table 1a Irrigation in Dry Prairie

Tillage Change	Emission Factor	* Assurance Factor \neq	+ Nitrous Oxide Reduction ¥	+ Energy Reduction €	= Total
Dry Prairie					
FT to NT	0.36	0.925	0.019	0.030	0.38
FT to RT	0.02	0.900	0.019	- 0.004	0.033

The emission reductions of each vintage year for reduced/no tillage are as follows: (Reductions are rounded down to the nearest whole number as requested by Alberta Environment)

Vintage Year	Reductions Tonnes of CO ₂ e
2002	12031
2003	13265
2004	15519
2005	16028
2006	16604
2007	16826
2008	17391
2009	20632
Total	128296

4. Quantification of Greenhouse Gas Emission Reductions

Quantification of the reductions, removals and reversals of relevant SS's for each of the greenhouse gases will be completed using the methodologies outlined **Table 2**, below (A listing of relevant emission factors is provided within Appendix A found on pages 27 -31 of the Tillage Protocol. These calculation methodologies serve to complete the following three equations for calculating the emission reductions from the comparison of the baseline and Project conditions).

Table 2

Emission Reduction = Emissions Baseline – Emissions Project

Emissions _{Baseline} = Emissions Energy Use
+ Emissions Carbon Sequestration* Assurance Factor
+ Emissions Nitrogen
Emissions _{Project} = 0
Where:
Emissions _{Baseline} = sum of the emissions under the baseline condition.
Emissions _{Energy Use} = component of emissions under SS's B9 Pesticide Production, B3 Seed Distribution (On-Site), B7 Fertilizer and Lime Distribution (On-Site), B11 Pesticide Distribution (On-Site)
Emissions _{Carbon Sequestration} = component of emissions under SS B13 Soil and Crop Dynamics
Assurance Factor = Factor to account for reversals due to tillage events. Relevant assurance factors are provided in Appendix A found on pages 27 -31 of the Tillage Protocol.
Emissions _{Nitrogen} = component of emissions under SS B13 Soil and Crop Dynamics
Emissions _{Project} = sum of the emissions under the project condition

CCS has collected information from each participant regarding the volume of GHG sources, sinks and reservoirs relevant to the activity and relevant to the baseline scenarios.

5. Verification of CCS Tillage Project #3

The scope of verification will be limited to emission reductions and removals for the practices of crop residue, no-till and reduced till for annual crops grown throughout Canadian Prairie Provinces by landowners who have contracted with Carbon Credit Solutions Inc. to claim greenhouse gas reductions. The intent is to verify the compatibility of data and verification tasks.

The verification process will adhere to the international standard CAN/CSA-ISO 14064 Part 3 – Greenhouse Gases: Specification with guidance for the validation and verification of greenhouse gas assertions.

Verification criteria are the benchmarks or comparison standards to which the verifier compares the GHG assertion and supporting evidence.

ICF International will verify that the Carbon Credit Solutions Inc. GHG assertion is:

- substantiated by sufficient and appropriate evidence, and;
- meets the criteria of the Specified Gas Emitters Regulations Quantification Protocol for Tillage System Management Version 1.3 February 2009 along with the Specified Gas Emitters Regulations Additional Guidance for Interpretation of the Quantification Protocol for Tillage System Management for Carbon Offsets in Alberta Version 1 February 2008 protocol to use as the verification criteria.

ICF International will review the information and systems related to the data management listed below:

- policies on security of IT systems;
- description of the data management system;
- procedures on data management;
- QA/QC controls;
- user manuals for GHG data management systems including methodologies for data capture.

ICF International will review the data calculations and assumptions listed below:

- emission and conversion factors and assumptions in equations;
- references to quantification protocols and conversion factors;
- identification of uncertainties

ICF International will review the client files including the following information:

- proof of ownership
- farming practices
- legal locations, size and location of project areas within legal location parcels, specific tillage activity data, etc.;
- confirmation of locations within the default ecoregion for which different coefficients are applied
- legal documents (e.g. contracts, certificates, and land titles);
- records by agents confirming land use (e.g. visual observations, crop insurance data, Canadian Wheat Board Permit books, equipment purchase receipts, etc). The Auditor will talk with agronomists in both the Dry Prairie and Parkland ecoregions;
- QA/QC on data entry in the data management system

It is probable the most accurate records of land use will be crop insurance records since they are verified by professional agronomists working for the insurance companies. Most of the participants in the program have provided this information to Carbon Credit Solutions Inc. An ICF International auditor will inspect these records to ensure the information has been accurately entered into Carbon Credit Solution Inc.'s data management system.

These records will be stratified to be representative of the Parkland and Dry Prairie ecoregions. If the information has been correctly entered no further sampling will be necessary. If inaccuracies are found the sample size will be increased accordingly.

A Verification Statement will be issued to Carbon Credit Solutions Inc. for inclusion in their greenhouse gas emission reductions submission to Alberta Environment.

A management letter will be issued to Carbon Credit Solutions Inc. containing observations that were made during the course of the verification audit that are not material to the GHG assertion but could improve the efficiencies and effectiveness of the project's GHG data management system and data controls. The information is confidential and will not be submitted to Alberta Environment.

Carbon Credit Solutions Inc. will correct any errors, omissions or misrepresentations identified during the course of the verification.

6. Level of Assurance

The levels of assurance as prescribed by the Specified Gas Emitters Regulation Offset Credit Project Guidance Document February 2008 Version 1.2 include:

The highest level of assurance is known as an audit or reasonable level of assurance. This is also known as positive assurance because the opinion is a direct factual statement expressing the opinion of the assurance practitioner.

The middle level is known as review or limited level of assurance. This is also known as negative assurance because the opinion is based on the identification of anomalies rather than the confirmation of the assertion. Typically, this is worded *"Based on our review, nothing has come to our attention that causes us to believe that the GHG statement is not, in all material respects, in accordance with the approved quantification protocols."*

The lowest level of assurance is a no assurance engagement. The most common example is a compilation engagement, such as hiring a person to prepare a tax return, which is not considered to be an assurance engagement because the verifier cannot express an opinion on their work.

The level of effort and cost required to complete a verification increases with the level of assurance. Alberta Environment has requested that at a minimum that a review level of assurance be provided for the GHG emission reductions submissions. Given that all of the participants have provided an assurance document to support their tillage practices and that random land title searches have been conducted where land tax assessments were provided, it is believed the Auditor will be able to offer a limited level of assurance, depending on the results of the audit.

The primary objectives of the Verification Plan will be to ensure that the CCS GHG assertion is materially correct. It is anticipated that the implementation of this verification plan is likely to result in the ability to provide a limited level of assurance if no discrepancies are found.

7. Project Proponent & Authorization

The Project Proponent is Carbon Credit Solutions Inc. (CCS) may be contacted at

Suite 5, 118 Main Street, N.E.
Airdrie, Alberta, Canada T4B 0R3
Attention: Mr. Laurence Ray, President
Telephone: 1-877-912-9132 or (403) 912-9132
Fax: (403) 948-3353
Email: laurence@carboncreditsolutions.ca
Website: www.carboncreditsolutions.ca

I am the duly authorized corporate officer of the Project Proponent mentioned above and have personally examined and am familiar with the information submitted in this GHG Report and the associated Project Plan for Carbon Credit Solutions Inc. Tillage Project #3 including the accompanying Notice of Creation on which it is based. Based upon reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, I hereby warrant that the submitted information is true, accurate and complete to the best of my knowledge and belief, and that all matters affecting the validity of the emission reduction claim or the protocol upon which it is based have been fully disclosed. I understand that any false statement made in the submitted information may result in de-registration and

serialization of credits and may be punishable as a criminal offence in accordance with provincial or federal statutes.

The Project Proponent has executed this GHG Report as of the 10th day of February, 2010.



Laurence Ray
President
Carbon Credit Solutions Inc.

Appendix A

Offset Project Plan for Carbon Credit Solutions Inc. Tillage Project #3