



# DETERMINATION REPORT

CTF CONSULTING, LTD.  
(SUBSIDIARY OF CARBON TRADE AND  
FINANCE SICAR S.A.)

DETERMINATION OF THE  
ASSOCIATED PETROLEUM GAS RECOVERY  
FOR THE KHARAMPUR OIL FIELDS OF “ROSNEFT”

REPORT No. RUSSIA/0014/2009

REVISION No. 03

BUREAU VERITAS CERTIFICATION



## DETERMINATION REPORT

Date of first issue: 03/12/2008	Organizational unit: Bureau Veritas Certification Holding SAS
Client: CTF Consulting, Ltd.	Client ref.: Mr. Konstantin Myachin

## Summary:

Bureau Veritas Certification has made the determination of the Associated Petroleum Gas Recovery for the Kharampur oil fields of "Rosneft" project of CTF Consulting, Ltd., located in Tumen Region, Yamalo-Nenetsky Autonomous District, Krasnoselkupsky and Purovsky municipal districts, Russian Federation, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design document and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the determination process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent has revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology, which uses selected elements of the approved CDM methodology ACM0009/Version 02.1 and Version 03.1, and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.: RUSSIA/0014/2009	Subject Group: JI
Project title: Associated Petroleum Gas Recovery for the Kharampur oil fields of "Rosneft"	
Work carried out by: Dinesh Shetty – Lead verifier Leonid Yaskin – verifier Vera Skitina – verifier	
Work reviewed and approved by: Flavio Gomes – Operational Manager for Climate Change	
Date of this revision: 03/02/2011	Rev. No.: 03
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## Indexing terms

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**Abbreviations change / add to the list as necessary**

APG	Associated Petroleum Gas
BCS	Buster Compression Station
BV	Bureau Veritas
CAR	Corrective Action Request
CL	Clarification Request
CO <sub>2</sub>	Carbon Dioxide
DR	Document Review
EIA	Environmental Impact Assessment
EIR	Environmental Impact Assessment Report
ERU	Emission Reduction Unit
GHG	Green House Gas(es)
GTS	Gas Transportation System
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
I	Interview
IE	Independent Entity
IETA	International Emissions Trading Association
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of Verification
NGO	Non Governmental Organization
NPV	Net Present Value
PCF	Prototype Carbon Fund (World Bank Carbon Finance Unit)
PDD	Project Design Document
PP	Project Participant
TUGS	Temporary Underground Gas Storage
UNFCCC	United Nations Framework Convention for Climate Change



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## 1 Introduction

CTF Consulting Ltd. has commissioned Bureau Veritas Certification to determine its JI project “Associated Petroleum Gas Recovery for the Kharampur oil fields of “Rosneft” (hereafter called “the project”) located in located in Tumen Region, Yamalo-Nenetsky Autonomous District, Krasnoselkupsky and Purovsky municipal districts, Russian Federation. CTF Consulting Ltd. coordinates the determination process on behalf of the project beneficiaries Carbon Trade and Finance SICAR S.A. and JSC “NK Rosneft”.

This report summarizes the findings of the determination of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

### 1.1 Objective

The purpose of the determination is to provide an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan, and the project's compliance with relevant UNFCCC and host country criteria are determined in order to confirm that the project design, as documented, is sound and reasonable, and meets the stated requirements and identified criteria. Determination is a requirement for all JI projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reduction units (ERUs).

UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

### 1.2 Scope

The determination scope is defined as an independent and objective review of the project design document (PDD), the project's baseline study (BLS) and monitoring plan (MP) and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements for Joint Implementation (JI) projects, the guidelines for the implementation of Article 6 of the Kyoto Protocol (Decision 16/CP.7) as agreed in the Marrakech Accords, in particular the verification procedures under the JI Supervisory Committee, and associated interpretations. Bureau Veritas Certification has, based on the recommendations in the Validation and Verification Manual (IETA/PCF), employed a risk based approach in the determination process, focusing on the identification of significant risks for project implementation and generation of ERUs.

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



### **1.3 GHG Project Description (Quotation from Section A.2. of the PDD Version 1.4 dated 01.02.2011)**

Associated petroleum gas (APG) is a by-product of oil extraction. It is a mixture of volatile hydrocarbons – methane, ethane, propane and butane. It also contains light liquid-phase hydrocarbons, mainly, pentane and hexane. APG may be dissolved in underground oil reservoir, or accumulate in the upper layer of oil-bearing bed, forming a gas cap.

One of the main ways of useful utilization of associated petroleum gas is its separation into several commercial products: broad fraction of light hydrocarbons (BFLH), dry gas, which predominantly consists of methane, and casinghead gasoline – a mixture of heavier hydrocarbons, also known as condensate. Component composition of dry gas is similar to that of natural gas. Dry gas is similar to natural gas by its composition and used domestically as fuel for power plants and energy source in residential sector and industry. Dry gas is also exported abroad. Casinghead gasoline is either used directly as motor fuel or processed further. The BFLH is refined into ethane fraction and propane-butane fraction. Also BFLH is used in petrochemical industry as the primary source of raw materials, for production of liquefied propane-butane and high-octane petrol fractions.

The purpose of the proposed Joint Implementation project is useful utilization of the associated petroleum gas at the production sites of Kharampur group of oil-fields of Rosneft company, operated by its subsidiary, RN-Purneftegas, Ltd. This group of oil-fields includes North-Kharampur, South-Kharampur, and Festival oil-fields. Oil production at Kharampur group of oil-fields began in 1990. These oil-fields have high gas-oil ratios. Large volumes (about 1 billion cubic meters per year) of associated petroleum gas are historically flared and up to now. According to the subsoil user license, RN-Purneftegas has never been obliged to utilize any specified fraction of this gas. Actually, environmental permits officially sanction the gas flaring.

The proposed project includes the existing booster pump stations (BPS) with water discharge and preliminary water discharge units (PWDU): BPS “Festival”, BPS-1 “South-Kharampur”, PWDU-2 “South-Kharampur”, BPS-2 “North-Kharampur”, and PWDU “North-Kharampur” coupled with oil treatment facility (OTF) and central commercial tank (CCT). All facilities are equipped with high and low pressure flares. A small portion of APG is used for own needs of the facilities, while the remaining gas is flared. Nine of ten flares emit soot during APG flaring, because they operate under “carbon-black flaring” conditions, which are characterized by noticeable underfiring of methane. This has been proved by calculations of emission limits, and by remote photographs of the sites.

Flaring of associated petroleum gas at the existing BPS and PWDU sites is considered as baseline scenario for the proposed project.

The project envisages the following activities:

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- Recovery and delivery to the booster compressor station (BCS) the high-pressure associated petroleum gas under its own pressure and preliminary compressed low-pressure APG from the existing BPS “Festival”, BPS-1 “South-Kharampur”, PWDU-2 “South-Kharampur”, BPS-2 “North-Kharampur”, and PWDU “North-Kharampur”.
- Low-temperature condensation of APG and its separation into the following commercial products: dry gas fraction, compliant to industry standard OST 51.40-93, and BFLH fraction (C3 and higher extraction rate is at least 90%).
- Transportation of commercial BFLH through a multiphase pumping station (MPS) to Tarasovskoe oil-field, where the product is shipped to consumers.
- Injection of commercial dry gas through the injection wells into the Temporary underground gas storage (TUGS) at Cenomanian gas deposit of Kharampur gas condensate field.

The proposed project will utilize several infrastructure objects, of which only the multiphase pumping station currently exists. This MPS is temporarily dormant. It was constructed for collection and transportation of condensate from Kynsko-Chaselsky group of oil-gas-condensate field, but gas production has been suspended there.

The Temporary underground gas storage for commercial dry gas will be built near remotely located and yet unexplored Kharampur gas field. Rosneft company has the license for exploration of this gas deposit. The company is planning to drill the cluster of injections wells and to furnish all related infrastructure. Project documents have confirmed suitability of Cenomanian bed of gas deposit for dry gas storage. According to the Technical Design Specifications of 2006, up to 7.5 billion cubic meters of associated gas could be injected in Cenomanian bed PK1 during six-year period. This amount equals only to 3.8% of initial gas reserves in this large gas deposit. Daily injection rate could be 3.42 million m<sup>3</sup>. In time of PDD development the initial plans were even corrected to decrease the amount of gas to be injected in TUGS.

After the gas is injected in TUGS, it may be topped immediately after the injection is finished (in 2013). Exploration of gas deposits of Kharampur gas field may begin at the same time.\* The integrated gas transporting system of the Russian Federation shall be accessible at that time, after completion of 170 km connective gas main from Kharampur deposit to Purpeiskaya pumping station of OJSC “Gazprom”. Topping of the injected gas and commercial exploration of Kharampur gas deposit may start even earlier, if the access to integrated gas transporting system is provided. At that time, the annual gas production at Kharampur gas field shall considerably exceed the annual volume of gas injection into TUGS.



Table A 2.1 Projected volumes of utilization of associated petroleum gas

	2010	2011	2012	Total
Utilization of APG, million m3	505.135	958.054	1031.140	2494.329

Project implementation became possible due to Joint Implementation (JI) mechanism under the Kyoto Protocol. An initial decision to implement the project was made by Rosneft company in 2006 after that a technical project design development had started. Construction of the gas collection pipelines begun in the middle of 2008 while main construction is planned to be fulfilled in 2009. The revenue from sales of the emission reduction units (ERU) increases the investment attractiveness of this project. In the absence of a project the associated petroleum gas would be continuously flared.

#### 1.4 Determination team

The determination team consists of the following personnel:

Dinesh Shetty

Bureau Veritas Certification      Team Leader, Climate Change Verifier

Leonid Yaskin

Bureau Veritas Certification      Team Member, Climate Change Verifier

Vera Skitina

Bureau Veritas Certification      Team Member, Climate Change Verifier

The Determination Report was reviewed by:

Flavio Gomes

Bureau Veritas Certification      Internal reviewer

## 2. Methodology

The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The determination consisted of the following three phases:

- i) desk review of the project design document and the baseline and monitoring plan;
- ii) follow-up interviews with project stakeholders;
- iii) resolution of outstanding issues and the issuance of the final determination report and opinion.

In order to ensure transparency, a determination protocol was customized for the project, according to the Determination and Verification Manual (IETA/PCF). The protocol shows, in a transparent manner, criteria (requirements), means of



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verification and the results from validating the identified criteria. The determination protocol serves the following purposes:

- it organizes, details and clarifies the requirements a JI project is expected to meet;
- it ensures a transparent determination process where the independent entity will document how a particular requirement has been validated and the result of the determination.

The determination protocol consists of five tables. The different columns in these tables are described in Figure 1.



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The completed determination protocol is enclosed in Appendix A to this report. **Determination Protocol Table 1: Mandatory Requirements**

Requirement	Reference	Conclusion	Cross reference
The requirements the project must meet.	Gives reference to the legislation or agreement where the requirement is found.	This is either acceptable based on evidence provided (OK), a <b>Corrective Action Request (CAR)</b> or a <b>Clarification Request (CL)</b> of risk or non-compliance with stated requirements. The CAR's and CL's are numbered and presented to the client in the Determination Report.	Used to refer to the relevant protocol questions in Tables 2, 3 and 4 to show how the specific requirement is validated. This is to ensure a transparent determination process.

**Determination Protocol Table 2: Requirements checklist**

Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in several sections. Each section is then further subdivided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question. (See below). <b>Clarification Request (CL)</b> is used when the determination team has identified a need for further clarification.

**Determination Protocol Table 3: Baseline and Monitoring Methodologies**

Checklist Question	Reference	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements of baseline and monitoring methodologies should be met. The checklist is organized in several sections. Each section is then further subdivided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (OK), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question. (See below). <b>Clarification Request (CL)</b> is used when the determination team has identified a need for further clarification.



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<b>Determination Protocol Table 4: Legal requirements</b>				
<b>Checklist Question</b>	<b>Reference</b>	<b>Means of verification (MoV)</b>	<b>Comment</b>	<b>Draft and/or Final Conclusion</b>
The national legal requirements the project must meet.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided ( <b>OK</b> ), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question. (See below). <b>Clarification Request (CL)</b> is used when the determination team has identified a need for further clarification.

<b>Determination Protocol Table 5: Resolution of Corrective Action and Clarification Requests</b>			
<b>Report corrective action and clarifications requests</b>	<b>Ref. to checklist question in tables 2/3</b>	<b>Summary of project owner response</b>	<b>Determination conclusion</b>
If the conclusions from the Determination are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Tables 2, 3 and 4 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the determination team should be summarized in this section.	This section should summarize the determination team's responses and final conclusions. The conclusions should also be included in Tables 2, 3 and 4, under "Final Conclusion".

**Figure 1 Determination protocol tables**

## 2.1 Review of Documents

The Project Design Document (PDD) Version 1.2 dated 17/11/2008 submitted by CTF Consulting Ltd. and additional background documents related to the project design, baseline, and monitoring plan, i.e. Kyoto Protocol, Host Country Laws, Guidelines for Users of the Joint Implementation Project Design Document Form, Approved Methodology ACM0009/Versions 02/1 and 03.1, CDM Tool for the Demonstration and Assessment of Additionality, JISC Guidance on Criteria for Baseline Setting and Monitoring, and others were reviewed.

Having obtained the approval of the project from the RF Ministry for Economic Developments #709 dated 30/12/2010 CTF Consulting submitted the PDD Version 1.4 dated 01/02/2011 based on which this Determination Report Version 03 was issued.


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The determination findings presented in this report relate to the project as described in the published PDD version 1.2 dated 17/11/2008, the PDD Version 1.3 dated 24/12/2008 and the final PDD Version 1.4 Dated 01/02/2011.

## 2.2 Follow-up Interviews

On 03/12/2008, 16-17/12/2008 and 23/12/2008 Bureau Veritas Certification performed interviews with project participants to confirm selected information and to resolve issues identified in the document review. Representatives of JSC "NK Rosneft", JSC "RN Purneftegas", and CTF Consulting Ltd. were interviewed (see References). The main topics of the interviews are summarized in Table 1.

**Table 1 Interview topics**

<b>Interviewed organization</b>	<b>Interview topics</b>
JSC "NK Rosneft"	<ul style="list-style-type: none"> <li>➤ RN Purneftegas visit</li> <li>➤ NK Rosneft Business Plan and Gas Programme</li> <li>➤ Timetable of the construction works</li> <li>➤ Project NPV calculations</li> </ul>
JSC "RN Purneftegas"	<ul style="list-style-type: none"> <li>➤ Site visit</li> <li>➤ Purneftegas gas programme</li> <li>➤ Timetable of the construction works</li> <li>➤ Baseline scenario parameters</li> <li>➤ Project management organisation</li> <li>➤ Project monitoring responsibilities</li> <li>➤ Monitoring equipments</li> <li>➤ Legal and other requirements (subsoil use license)</li> <li>➤ Technical project design</li> <li>➤ Environmental Impact Assessment</li> <li>➤ Public Hearings</li> <li>➤ Quality control and quality assurance procedures</li> <li>➤ Training to the project activity</li> </ul>
CTF Consulting Ltd.	<ul style="list-style-type: none"> <li>➤ Baseline scenario</li> <li>➤ Monitoring plan</li> <li>➤ Applicability of ACM0009</li> <li>➤ Additionality justification</li> <li>➤ Conformity of PDD to JI requirements</li> </ul>

## 2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to raise the requests for corrective actions and clarification and any other outstanding issues that

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needed to be followed on by the project participants for Bureau Veritas Certification positive conclusion on the project design.

*Corrective Actions Requests (CAR)* are issued, where:

- i) mistakes have been made with a direct influence on project results;
- ii) JI or host Party requirements have not been met; or
- iii) there is a risk that the project would not be accepted as a JI project or that emission reductions will not be certified.

*Clarification Requests (CL)* are issued where

- iv) additional information is needed to fully clarify an issue.

A draft determination protocol, summarising BV Certification's preliminary findings, was submitted to the project participants on 03/12/2008. The preliminary findings identified 3 Corrective Action Requests and 4 Clarification Requests. On 24/12/2008 the project participants submitted their final response to the BV Certification's initial findings together with the Project Design Document Version 1.3. The amendments and corrections made by the project participants to the PDD and the additional information and clarifications provided by them satisfactorily addressed BV Certifications' concerns and the Determination Report Revision 01 was issued and sent to BVC Internal Technical Reviewer (ITR) for review.

No comments on the PDD were received during the public review period.

This Determination Report Version 03 is issued based on the received PDD Version 1.4 dated 01/02/2011 which refers in Section A.5 to the received project approval by the RF Ministry for Economic Developments #709 dated 30/12/2010. The approval was made available to the AIE which determined it as genuine.

To guarantee the transparency of the determination process, the CAR's and CL's raised are summarized in Appendix A, Table 5.

### 3 Determination Findings

In the following sections, the findings of the determination are stated. The determination findings for each determination subject are presented as follows:

- i) the findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Determination Protocol in Appendix A.
- ii) where Bureau Veritas Certification had identified issues that needed clarification or that represented a risk to the fulfillment of the determination protocol criteria or the project objectives, a Clarification or Corrective Action Request, respectively, has been issued. The Clarification and Corrective Action Requests are stated, where



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- applicable, in the following sections and are further documented in the Determination Protocol in Appendix A.
- iii) where Clarification and Corrective Action Requests have been issued, the response by the project participants to resolve these requests is summarized in this draft final determination report.
  - iv) the draft final conclusions of the determination are presented consecutively.

### 3.1 Project Design

Bureau Veritas Certification recognizes that Carbon Trade and Finance SICAR S.A is helping Russia fulfil its goals of promoting sustainable development. The project appears to be in line with Russia specific JI requirements because it leads to reduction of GHG emissions by termination of Associated Petroleum Gas flaring and implementation of a state-of-art technology of APG processing enabling to produce two commercial products: dry gas and broad fraction of light hydrocarbons (BFLH).

Dry gas will be injected until 2013 into a temporary underground gas storage to be constructed in the Cenomanian gas deposit, after that it will be supplied to the integrated gas transporting system (GTS) of the Russian Federation thereby substituting for natural gas - the fuel with the same carbon content. Broad fraction of light hydrocarbons (BFLH), which contains at least 90% of C<sub>3</sub> and heavier hydrocarbons. will, as conservatively assumed in the PDD, substitute for propane-butane motor fuel (with the same carbon content) or traditional gasoline and diesel motor fuels (with even higher carbon content).

Thus, project implementation intends to result in useful utilization of large volumes of APG (up to 1 billion m<sup>3</sup> yearly) instead of the gas flaring and in total reduction of air emissions by more than 6.8 million tCO<sub>2</sub>.

The project design is sound. The geographical (Kharampur group of oil-fields at Krasnoselkupsky and Purovsky municipal districts of Yamalo-Nenetsky Autonomous District, Tumen Region) and temporal (2 years, 7 months) boundaries of the project are clearly defined. A specialized institute has worked out technical project design documentation (2007), tenders for purchasing main equipment have been conducted (2008), most of gas collection pipes has been mounted (2008).

Outstanding issues related to the project design, PP's responses and BV Certification's conclusions are presented below as follows:

CL 01 Please clarify the purpose of the project.

PP's response: The amended PDD dated 24/12/2008 states in A.1.: "The purpose of the proposed Joint Implementation project is useful utilization of the associated petroleum gas at the production sites of Kharampur group of oil-fields of Rosneft company, operated by its subsidiary, RN-Purneftegaz, Ltd."

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Conclusion: The omission in the PDD is eliminated. This CL is closed based on the amendment to the PDD.

CL 02 Please clarify from which year dry gas is supplied to the GTS.

PP's response: 2013 is now indicated throughout PDD version 1.3 dated 24/12/2008 as the year from which the dry gas will be supplied to the GTS.

Conclusion: The uncertainty in the PDD is eliminated. This CL is closed based on the amendment to the PDD.

### 3.2 Baseline and Additionality

For justification of the baseline choice and additionality argumentation, the project participants use selected elements of the approved CDM methodology AM0009/Version 03.1 "Recovery and utilization of gas from oil wells that would otherwise be flared or vented", what is in line with Clause 20 (b) of JISC "Guidance for baseline setting and monitoring". PDD clearly describes how the applicability conditions of AM0009/Version 03.1 are fulfilled in the context of the project.

A seeming deviation from the methodology concerns the applicability condition that the recovered gas and the products replace in the market the same type of fuels or fuels with higher carbon content per unit of energy. According to the PDD, dry gas recovered from APG will be temporarily stored in the underground storage and will not enter in 2010-2012 into the gas transportation system (GTS) and thus, during these years there is not actual replacement of the natural gas by the project.

Nonetheless, the GHG emissions due to flaring in current practices no more take place in 2010-2012 and thus, emissions previously existed are really prevented. So, the project deals with just the deferred, for a few years, replacement of the natural gas in the GTS. This is reasonably explained in PDD Section B.2. According to cash flow analysis, the total amount of dry gas accumulated during 2010-2012 will be transported to end users in 2013. Therefore, the project is in no way a storage activity.

To identify the baseline scenario the project participants applied the basic approach of ACM0009/Version 03.1. The chosen baseline was selected from seven plausible alternative scenarios specified in AM0009/Version 03.1. Business as usual scenario with APG flaring, which complies with mandatory legislation and regulations, was identified as the baseline scenario since for NK Rosneft this has been economically the most attractive course of action and the only realistic and credible alternative scenario to the project activity. Continuation of the current practice of gas flaring is the only baseline stipulated by the methodology ACM 0009/Version 03.1.

To prove the project additionality, the provisions of the additionality tool [4] was used instead of the combined tool referred to in ACM 0009/Version 03.1, as not all potential alternative scenarios to the proposed project activity were available options to project participants. The investment analysis, complemented by the

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sensitivity analysis, demonstrated that the proposed project activity is not financially attractive and not economically or financially feasible for NK Rosneft without the revenue from the sale of certified emission reductions (CERs). Though unnecessary, two barriers to the project activity were analysed: APG price regulation & disproportion, and limited access to GTS. The analysis of the investment and institutional barriers has demonstrated that the proposed project activity is not a likely baseline scenario.

Outstanding issue related to the project design, PP's responses and BV Certification's conclusions is presented below as follows:

CL 03 Common practice analysis is not clearly stated and is focused instead on the country-wide problem of APG utilisation. This leaves the additionality issue not proven in full. Please clarify if similar activities cannot be observed or such exist but have essential distinctions from the project activity.

PP's response: The amended PDD Version 1.3 dated 24/12/2008 states inter alia in Section B.2. under "Common practice analysis":

"The Russian APG is processed mainly by SIBUR company, which is a petrochemical holding. However, large gas processing plants (GPP) of SIBUR located in Khanty-Mansiysky and Yamalo-Nenetsky autonomous districts are constructed 30 and more years ago during Soviet Union time. The last gas processing plant in USSR and Russia was commissioned in 1989. It means that those plants cannot be considered in common practice analysis because were implemented in absolutely other economic circumstances and time.

There are no examples of large scale greenfield APG processing implemented so far solely by oil company as Rosneft. There are a number of examples of small scale APG processing. For large scale processing there is one recent example of commissioning the previously inoperative gas processing installation MAU-3 at Nizhnevartovsky GPP performed by TNK-BP-SIBUR joint venture. However, this project is not a greenfield but only recovery of previously abandoned equipment.

The other and main difference is that in most of the cases oil companies realize their APG utilization programmes because of mandatory APG utilization rate prescribed in the license for oil field exploration. However, as it is mentioned before, Rosneft does not have a mandatory APG utilization rate for Kharampur group of oilfields and preformed project is a voluntary activity" (end of quotation).

Conclusion: The indefiniteness in the PDD is eliminated. This CL is closed based on the amendment to the PDD.

### 3.3 Monitoring Plan

The monitoring plan, data to be collected and the approach to archiving them are in accordance with AM0009/Version 02.1.

Project participants made reasonable improvements to the formulas from AM0009/ Version 02.1as follows:



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- (1) electricity consumption is taken into account as per ACM 0009/Version 03.1. Electrical grid emission factor was calculated by the method of Carbon Trade & Finance SICAR S.A, which was verified by Bureau Veritas Certification in November 2008 under a separate contract with CTF Consulting Ltd. It provides more accurate estimation of GHG project emissions;
- (2) methane emissions factors for processing, storage and transportation processes were calculated by IPCC, rather than EPA, method. The rationale for this amendment was appropriately justified in PDD Section D.1.1.2.
- (3) methane emissions due to underfiring of APG in flares were accounted according to the Guidelines [8] approved by the State Committee for Environmental Protection.

An operational and management structure that the project participants(s) will implement in order to monitor emission reduction is clearly described in the PDD. The site visit confirmed the availability and operationability of this structure. Monitored data quality assurance and quality control procedures are backed up by the Environmental Management System certified to ISO 14001.

There are no outstanding issues related to the monitoring plan.

### 3.4 Calculation of GHG Emissions

The formulas used for calculation of baseline and project emissions were given in the PDD Section D.

The initial volumes of processed associated gas were taken from the Business Plan of RN-Purneftegas Ltd. for the period 2009-2013. The volumes of processing products and carbon content therein were estimated using equations in technical design document [10] with corrections for APG volumes in the Business Plan.

Values of project emissions in 2010, 2011, 2012 are presented in the PDD Table E.1.1 which specifies all the emission sources:

- (1) Project CO<sub>2</sub> emissions from combustion, flaring or venting of APG;
- (2) Project fugitive emissions during operation of equipment and gas transportation, which include emissions during:
  - a) gas transportation by the compressors,
  - b) during gas transportation in pipes,
  - c) during gas treatment,
  - d) gas storage in TUGS,
  - e) backpumping of dry gas (conservatively added to 2012 emissions);
- (3) Project emissions from electricity consumption.

Values of baseline emissions in 2010, 2011, 2012 are presented in the PDD Table E.1.1 which specifies the following emission sources:

- (1) APG flaring,
- (2) APG underfiring.



Values of estimated project and baseline emissions, and emission reductions are presented in the PDD Table E.6.1 (see below). The verifiers checked the calculations and found the results accurate.

Year	Estimated project emissions (tonnes of CO <sub>2</sub> equivalent)	Estimated leakage (tonnes of CO <sub>2</sub> equivalent)	Estimated baseline emissions (tonnes of CO <sub>2</sub> equivalent)	Estimated emission reductions (tonnes of CO <sub>2</sub> equivalent)
2010	85 996	0	1 479 965	1 393 969
2011	163 560	0	2 814 521	2 650 961
2012	239 085	0	3 034 661	2 795 576
Total (tonnes of CO <sub>2</sub> equivalent)	488 641	0	7 329 147	6 840 506

Outstanding issues related to the GHG emissions and crediting period, PP's responses and BV Certification's conclusions are presented below as follows:

CAR 01 The presented Table E.6.1. does not provide the total values of baseline emissions, project emissions and emission reductions for the crediting period, as stipulated in the JISC "Guidance for the users of the PDD Form.

PP's response: Table E.6.1. was duly corrected to show the total values of baseline emissions, project emissions and emission reductions for the crediting period (see the table above).

Conclusion: This CAR is closed based on the correction made to the PDD.

CL 04 Please clarify why the start of the crediting period is defined as 01/01/2010 though the starting date of project activity is defined as June 2010.

PP's response: Starting date is defined as July of 2008.

Conclusion: The ambiguity in the PDD is eliminated. This CL is closed based on the amendment made to the PDD.

### 3.5 Sustainable Development Impacts

Outstanding issue related to the sustainable development impacts, PP's responses and BV Certification's conclusions is presented below as follows:

CL 05 An analysis of the environmental impacts of the project is not described in PDD though it is available in technical project design documents [15]. Please clarify this issue in PDD.

PP's response: The amended PDD Version 1.3 dated 24/12/2008 states inter alia in section F.1:



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“Under this Law, two environmental impact assessments (EIA) has already developed by Tyumen research and development and engineering center of oil and gas technology for the following projects:

- Technical project “Collection, preparation, compressing and injection of low-pressure gas of Kharampur group of oil-fields into Temporary underground gas storage (TUGS), in the amount of 1 billion m<sup>3</sup> per year” (by VolgaUralNIPigas Ltd., 2007);
- Technical project “Construction and operation of Temporary underground gas storage for natural gas at Kharampur oil-production site on the basis of Cenomanian gas deposit for storage of dry gas of Kharampur group of oil-fields” (by VNIIGAZ Ltd., 2007).

These documents shall be submitted to State expertise before project implementation for approval. The Expertise shall decide if the project design documents meet all requirements of currently enforced normative acts.

Following types of anthropogenic impacts were marked out:

1. mechanical factors
2. technological factors

“Mechanical factors associate with construction work – surface layout, filling road, pipelining, building and construction works. One of the main mechanical factors during building and construction works is unregulated thoroughfare transport.

Technological factors associate with environmental pollution. The pollution of landscape takes place at all stages of life cycle of the objects (BPS, PWD, BCS, MPS, etc). Emergency will be the reason for environmental pollution. Noise pollution renders considerable contribution in the whole of environmental pollution.

However using up-to-date technology during building and construction works and operation objects environmental impact will be minimal” (end of quotation).

Conclusion: The omission in the PDD is eliminated. This CL is closed based on the amendment made to the PDD.

### 3.6 Comments by Local Stakeholders

Public hearings on the project “Collection, preparation, compressing and injection of low-pressure gas of Kharampur group of oil-fields into Temporary underground gas storage (TUGS), in the amount of 1 billion m<sup>3</sup> per year” were held on 21.02.2008. The participants included project developers from RN-Purneftegas Ltd., the President of municipal administration of Purovsky municipal district, journalists and representatives of independent association.

The participants of the public hearings issued the Protocol on the hearing results. This Protocol has been attached to project design documents to be submitted for the State environmental expertise. This Protocol has been signed by RN-Purneftegas Ltd. and approved the administration of Purovsky municipal district.



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The Protocol with records of participant's speeches was made available to the verifiers.

Outstanding issue related to the sustainable development impacts, PP's responses and BV Certification's conclusions is presented below as follows:

CL 06 Please clarify the nature of the comments.

PP's response: The amended PDD Version 1.3 dated 24/12/2008 states inter alia in section G.1:

"During the public hearings the stakeholders touched following topics:

1. Taking building and construction works by local organization. This makes supplement for local budget and gives additional employment of local labor force.
2. Training of local labor force and employment in the objects.
3. Helping to construction of museum in Kharampur village and other social and cultural objects.
4. Noise pollution of pipelining through the rivers will be considerable.
5. Unauthorized access to the protected territory for fishing.

All above-listed opinions were taken into account by specialists of RN Purneftegaz".

Conclusion: The omission in the PDD is eliminated. This CL is closed based on the amendment made to the PDD.

#### **4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS**

According to the modalities for the Determination of JI projects, the AIE shall make publicly available the project design document and receive, within 30 days, comments from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

Bureau Veritas Certification published the project documents on BVC site [www.bureau-veritas.ru](http://www.bureau-veritas.ru) on 20/11/2008 and invited comments within 19/12/2008 by Parties, stakeholders and non-governmental organizations.

No comments from third parties have been received.

#### **5 DETERMINATION OPINION**

Bureau Veritas Certification has been engaged by CTF Consulting, Ltd to perform a determination of the JI project "Associated Petroleum Gas Recovery for the Kharampur oil fields of "Rosneft". The determination was performed on the basis of UNFCCC criteria for JI projects, in particular the verification procedures under the JI Supervisory Committee, as well as host country criteria and the criteria given to provide for consistent project operations, monitoring and reporting.



**BUREAU  
VERITAS**

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The determination consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the issuance of the draft determination report and opinion.

The review of the project design documentation, the subsequent follow-up interviews, and the resolution of the Corrective Action Requests and Clarification Requests have provided Bureau Veritas Certification with the sufficient evidences to determine the fulfilment of the above stated criteria and to demonstrate that the project is additional.

An analysis of the investment and institutional barriers demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that it is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The review of the project design documentation (Versions 1.2 through 1.4) and the follow-up interviews with the project participant and CTF Consulting have provided Bureau Veritas Certification with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

The determination is based on the information made available to us and the engagement conditions detailed in this report.

## 6 REFERENCES

### Document or Type of Information referred to in the Protocol, Appendix A

1	PDD "Associated Petroleum Gas Recovery for the Kharampur oil fields of "Rosneft" Version 01.2 dated 17/11/2008.
2	AM0009/Version 03.1 "Recovery and utilization of gas from oil wells that would otherwise be flared or vented". Approved baseline and monitoring methodology. CDM – Executive Board.
3	AM0009/Version 02.1 "Extraction and utilization of gas from oil wells that would otherwise be flared". Revision to approved baseline and monitoring methodology. CDM – Executive Board.
4	Tool for the demonstration and assessment of additionality (Version 05.2). CDM – Executive Board. Methodological tool.
5	Guidelines for Users of the Joint Implementation Project Design Document Form, JISC. Third Meeting, Report – Annex 2.
6	Guidance on criteria for baseline setting and monitoring. Version 01. JISC.
7	2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 4, Section 4.2
8	"Guidelines for calculation of air emissions from APG flaring", Research Institute of Air Protection, Saint Petersburg, 1998



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9	Business plan of RN-Purneftegas Ltd. for the period 2009-2013.
10	“Collection, treatment, compressing and injection of low-pressure gas of Kharampur group of oil-fields into Temporary Underground Gas Storage (TUGS), in the amount of 1 billion m <sup>3</sup> per year”, Project Design Document, VolgoUralNIPIGaz Ltd., Orenburg, 2007
11	“Project design documentation for construction and exploitation of Temporary underground gas storage in Cenomanian gas deposit at Kharampur oil-field, for storage of dry gas of Kharampur group of oil-fields”, VNIIGAZ Ltd., Moscow Region, Razvilka Village, 2007
12	On-site interviews at RN Purneftegas (project operator) conducted by Leonid Yaskin on 16-17 December 2008.
13	On-site interviews at OJSC Rosneft (project participant) conducted by Leonid Yaskin on 23 December 2008.
14	On-site interviews at CTF Consulting LTD (project participant) conducted by Leonid Yaskin on 3 and 23 December 2008.
15	“Collection, treatment, compressing and injection of low-pressure gas of Kharampur group of oil-fields into Temporary Underground Gas Storage (TUGS), in the amount of 1 billion m <sup>3</sup> per year”. Project Design Document. Volume 11. Environment protection. Tyumen Research and Engineering Centre of Oil & Gas Technologies (ZAO NIPINEFTEGAZ), 2007. Volume 12. Environmental Impact Assessment. NK Rosneft – Scientific and Engineering Centre, Krasnodar, 2007.
16	On environmental expertise. Federal Law dated 23.11.1995 N 174-Φ3, last revision by Federal Law dated 16.05.2008 N 75-Φ3.
17	On the composition of sections of project documentations and requirements to their content. RF Government Resolution dated 16.02.2008 N8.
18	Protocol of Public hearings on the project “Collection, preparation, compressing and injection of low-pressure gas of Kharampur group of oil-fields into Temporary underground gas storage (TUGS), in the amount of 1 billion m <sup>3</sup> per year”, dated 21.02.2008.
19	On approval of methodological instructions for examination of project documentation. Order by the Ministry of Economic Development and Trade of the RF, dated 20 December 2007, N 444.

**Document or Type of Information obtained at the site visits**

1	Ref. [9-15, 18] in the table of references above.
2	Project NPV calculation tables with input data
3	Additional agreement to subsoil-use license СЛХ № 01884 НЭ granted to JSC “NK Rosneft” for development of Kharampur oil-condensate field (north and south beds). License expiry date is prolonged to 06.06.2038.
4	Target Gas Programme of JSC “NK Rosneft” for 2008-2013 On increase of the level of utilization of associated oil gas and heightening of natural recourses recovery. Approved by President of NK Rosneft on 16.07.2008.
5	Outline timetable of design works, equipment delivery and construction of the object “Underground Gas Storage” at Kharampur oil field. Issued by RN Purneftegas on 22.08.2008.
6	Conclusion of “Environmental Impact Assessment”. NK Rosneft – Scientific and Engineering Centre, Krasnodar, 2007.
7	Permission No 162 for emission of polluting substances in atmospheric air. For



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	the period 01.11.2007 - 21.12.2010. Rostekhnadzor Department for Yamalo-Nenetsky Autonomous Okrug. Issued 26.09.2007.
8	Calibration records and tags concerning laboratory equipment:
9	Structural scheme of Information-Control System for collection, treatment, compressing and injection of low-pressure gas of Kharampur group of oil-fields into Temporary Underground Gas Storage under variant II.

**Persons interviewed:**

1	Rostislav Latysh, JSC "NK Rosneft", Deputy director of Department of asset management, economics and business planning.
2	Evgeny Sokolov, CTF Consulting, Ltd., General Director.
3	Konstantin Myachin, CTF Consulting, Ltd., Carbon Projects Manager.
4	Svetlana Gryazeva, CTF Consulting, Ltd., Carbon Projects Expert.
5	Vitaly Litvinenko, JSC RN Purneftegas, General Director.
6	Valey Bedrin, JSC RN Purneftegas, Deputy General Director for development.
7	Anatoly Umantsev, JSC RN Purneftegas, Head of Department for perspective development and organisation of project activities.
8	Aidar Gabdulkhakov, JSC RN Purneftegas, Deputy Head of Department for treatment and transport of oil, gas and condensate.
9	Ivan Morikov, JSC RN Purneftegas, Deputy Head of Department for perspective development and organisation of project activities.
10	Ilmir Ayupov, JSC RN Purneftegas, Lead Specialist of Department for perspective development and organisation of project activities.
11	Ivan Myschak, JSC NK Rosneft Presentation, Chief Geologist.
12	Sergey Kislyakov, JSC RN Purneftegas, Head of Unit for Environment Protection.
13	Mikhail Strugatsky, JSC RN Purneftegas, Chief mythologist.
14	Elena Savchenko, JSC RN Purneftegas, Economist.



## APPENDIX A: COMPANY JI PROJECT DETERMINATION PROTOCOL

Table 1 Mandatory Requirements for Joint Implementation (JI) Project Activities

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
1. The project shall have the approval of the Parties involved.	Kyoto Protocol Article 6.1 (a)	<p>Pending. The written project approvals are to be provided after the determination of the PDD. As per Determination Report Version 02.</p> <p><b>The pending issue is closed in this DR Version 3 based on the available project approval by the RF Ministry for Economic Development #709 dated 30/12/2010.</b></p> <p>Verifier's Note 1: Russian Federation can issue an approval on a determined project only.</p> <p>Verifier's Note 2: The Draft Glossary approved by 13th</p>	Table 2 Section A.5.



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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		<p>JISC Committee clarifies that:</p> <p>a) At least the written project approval(s) by the host Party(ies) should be provided to the AIE and made available to the secretariat by the AIE when submitting the determination report regarding the PDD for publication in accordance with paragraph 34 of the JI guidelines;</p> <p>(b) At least one written project approval by a Party involved in the JI project, other than the host Party(ies), should be provided to the AIE and made available to the secretariat by the AIE when submitting the first verification report for publication in accordance with paragraph 38 of the JI guidelines, at the latest.</p>	
<p><b>2.</b> Emission reductions, or an enhancement of removal by sinks, shall be additional to any that would otherwise occur.</p>	<p>Kyoto Protocol Article 6.1 (b)</p>	<p>OK</p>	<p>Table 2, Section B.2</p>



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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
3. The sponsor Party shall not acquire emission reduction units if it is not in compliance with its obligations under Articles 5 & 7.	Kyoto Protocol Article 6.1 (c)	OK	N/A
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3.	Kyoto Protocol Article 6.1 (d)	OK	N/A
5. Parties participating in JI shall designate national focal points for approving JI projects and have in place national guidelines and procedures for the approval of JI projects.	Marrakech Accords, JI Modalities, §20	OK	The Russian national focal point is the Ministry of Economic Development.  The Russian national guidelines and procedures are established by the RF Government Order N 332 dated 28/05/07 and by RF Ministry of Economic Development and Trade Order N 444 dated 20/12/07.
6. The host Party shall be a Party to the Kyoto Protocol.	Marrakech Accords, JI Modalities, §21(a)/24	OK	Russia has ratified the Kyoto Protocol by Federal Law N 128-Φ3 dated



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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
			04/11/04.
7. The host Party's assigned amount shall have been calculated and recorded in accordance with the modalities for the accounting of assigned amounts.	Marrakech Accords, JI Modalities, §21(b)/24	OK	The Russian Federation's assigned amount has been calculated and recorded in the 4th National Communication dated 12/10/06.
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4.	Marrakech Accords, JI Modalities, §21(d)/24	OK	Russian Federation has established the GHG Registry by the RF Government Order N 215-p dated 20/02/06.
9. Project participants shall submit to the independent entity a project design document that contains all information needed for the determination.	Marrakech Accords, JI Modalities, §31	OK	CTF Consulting LTD has been submitted a PDD to Bureau Veritas Certification, which contains all information needed for determination.
10. The project design document shall be made publicly available and Parties, stakeholders and UNFCCC accredited observers shall be invited to, within 30 days, provide comments.	Marrakech Accords, JI Modalities, §32	OK	The PDD was made publicly available for comments on Bureau Veritas Rus site from 20 November to 19



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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
			December 2008.
<b>11.</b> Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party shall be submitted, and, if those impacts are considered significant by the project participants or the host Party, an environmental impact assessment in accordance with procedures as required by the host Party shall be carried out.	Marrakech Accords, JI Modalities, §33(d)	OK	Table 2, Section F
<b>12.</b> The baseline for a JI project shall be the scenario that reasonably represents the GHG emissions or removal by sources that would occur in absence of the proposed project.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.2
<b>13.</b> A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.2
<b>14.</b> The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure.	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B.2
<b>15.</b> The project shall have an appropriate monitoring plan.	Marrakech Accords, JI Modalities, §33(c)	OK	Table 2, Section D
<b>16.</b> A project participant may be: (a) A Party involved in the JI project; or (b) A legal entity authorized by a Party involved to	"Glossary of Joint Implementation	The Russian project participant is authorized by	Table 2, Section A



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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
participate in the JI project.	Terms", Version 02 [4]	the Russian Federation through the issuance of the project approval by the RF Ministry for Economic Development #709 dated 30/12/2010.	



Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
<b>A. General Description of the project</b>					
<b>A.1 Title of the project</b>					
A.1.1. Is the title of the project presented?	1	DR	The title of the project is: "Associated Petroleum Gas Recovery for the Kharampur oil fields of "Rosneft".		OK
A.1.2. Is the current version number of the document presented?	1	DR	The PDD Version 1.2.		OK
A.1.3. Is the date when the document was completed presented?	1	DR	The PDD Version 1.2 is dated 17/11/2008.		OK



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<b>A.2. Description of the project</b>					
A.2.1. Is the purpose of the project included?	1, 12, 14	DR I	Please make clear the purpose of the project.	GL-04	OK
A.2.2. Is it explained how the proposed project reduces greenhouse gas emissions?	1	DR	A reasonable explanation is given. The project reduces greenhouse gas emissions by recovery and utilization of associated petroleum gas (APG) from oil wells. In the absence of this project, almost all APG would have been flared.		OK
<b>A.3. Project participants</b>					
A.3.1. Are project participants and Party(ies) involved in the project listed?	1	DR	Party A is the Russian Federation Party B is not defined yet Project participants are listed as follows: OJSC "NK Rosneft" (Russian Federation); Carbon Trade and Finance SICAR S.A. (Luxemburg)		OK
A.3.2. The data of the project participants are presented in tabular format?	1, 5	DR	The data are presented in the tabular format as per ref. [5]. Refer to PDD Section A.3.		OK
A.3.3. Is contact information provided in Annex 1 of the PDD?	1	DR	Refer to PDD Annex 1.		OK
A.3.4. Is it indicated, if it is the case, if the Party involved is a host Party?	1	DR	Russian Federation is indicated as a host Party		OK
<b>A.4. Technical description of the project</b>					
A.4.1. Location of the project activity					



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A.4.1.1. Host Party(ies)	1	DR	The Russian Federation		OK
A.4.1.2. Region/State/Province etc.	1	DR	Tumen Region, Yamalo-Nenetsky Autonomous District, Krasnoselkupsky and Purovsky municipal districts.		OK
A.4.1.3. City/Town/Community etc.	1	DR	130 km to the south of Tarko-Sale urban village, and 180 km to the east of Gubkinsky town.		OK
A.4.1.4. Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	1	DR	PDD Section A.4. defines in detail the physical location, including information allowing the unique identification of the project.		OK
A.4.2. Technology(ies) to be employed, or measures, operations or actions to be implemented by the project					
A.4.2.1. Does the project design engineering reflect current good practices?	1	DR	The project design engineering represents current good practices in processing Associated Petroleum Gas.		OK
A.4.2.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 10, 11, 12, 13	DR 	The project uses the state-of-art technology of APG processing by a scheme of high-pressure compression and low-temperature condensation techniques with turbo expanders and recuperative heat exchangers to produce broad fraction of light hydrocarbons (BFLH) and dry gas.		OK
A.4.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,12, 13	DR 	The project technology is unlikely to be substituted by other or more efficient technologies within the project period.		OK
A.4.2.4. Does the project require extensive initial training	1,12,	DR	The project envisages extensive initial		OK



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and maintenance efforts in order to work as presumed during the project period?	13, 14	I	training of managers and the monitoring team in order to work as presumed during the project period. Please refer to PDD Section D.3.		
A.4.2.5. Does the project make provisions for meeting training and maintenance needs?	1,12, 13, 14	DR I	These provisions are stipulated in PDD Section D.3.		OK
A.4.3. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances					
A.4.3.1. Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	1, 13, 14	DR I	It is clearly explained in PDD Section A.4.3 as follows. In the absence of this project, almost all APG is flared thereby generating GHG emissions. The project will achieve GHG emission reductions through APG recovery, treatment and separation, by low-temperature condensation techniques, into the two commercial products: <ul style="list-style-type: none"> <li>• Dry gas, which is injected into temporary underground gas storage to be constructed in the Cenomanian gas deposit of yet unexplored large gas field. Gas injection will continue until 2013-2014, after that the dry gas will be supplied to the integrated gas transporting system (GTS) of the Russian Federation thereby substituting for natural</li> </ul>		



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			<p>gas - the fuel with the same carbon content.</p> <p>Please clarify, throughout the PDD, from which year the dry gas is supplied to the GTS. Reduce the length of the section to one page.</p> <ul style="list-style-type: none"> <li>Broad fraction of light hydrocarbons (BFLC), which contains at least 90% of C<sub>3</sub> and heavier hydrocarbons. BFLC will, as conservatively assumed, substitute for propane-butane motor fuel (with the same carbon content) or traditional gasoline and diesel motor fuels (with even higher carbon content).</li> </ul> <p>Thus, project implementation will result, as stated in Section A.4.3 of the PDD, in useful utilization of large volumes of APG (almost 1 billion m<sup>3</sup>) instead of the gas flaring and in total reduction of GHG emissions by more than 6.8 million tCO<sub>2</sub>.</p>	GL02	OK
A.4.3.2. Is it provided the estimation of emission reductions over the crediting period?	1	DR	Total estimated emission reductions over the crediting period equal 6 840 507 tones of CO <sub>2</sub> equivalent.		OK
A.4.3.3. Is it provided the estimated annual reduction for the chosen credit period in tCO <sub>2</sub> e?	1	DR	The estimated annual reduction in the years 2010, 2011, 2012 of the credit period is provided in tCO <sub>2</sub> e (ref to PDD Section A.4.3.1.).		OK
A.4.3.4. Are the data from questions A.4.3.2 and A.4.3.3 above presented in tabular format?	1, 5	DR	The data are presented in the tabular format as per ref. [5]. Refer to PDD Section A.4.3.1.		OK



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<b>A.5. Project approval by the Parties involved</b>					
A.5.1. Are written project approvals by the Parties involved attached?	1	DR	Project received approval by the RF Ministry for Economic Development #709 dated 30/12/2010.		OK
<b>B. Baseline</b>					
<b>B.1. Description and justification of the baseline chosen</b>					
B.1.1. Is the chosen baseline described?	1,2	DR	The chosen baseline, namely the continuation of the current practice of gas flaring is described.		OK
B.1.2. Is it justified the choice of the applicable baseline for the project category?	1,2	DR	The chosen baseline is selected from seven plausible alternative scenarios, which are specified in AM0009/Version 03.1 "Recovery and utilization of gas from oil wells that would otherwise be flared or vented" and analysed in PDD Section B.1.  The baseline is the most economically and technically feasible scenario and it does not violate Russian legal requirements.  Continuation of the current practice of gas flaring is the only baseline stipulated by the methodology ACM 0009/Version 03.1.		OK
B.1.3. Is it described how the methodology is applied in the context of the project?	1,2	DR	Following Clause 20 (b) of JISC "Guidance for baseline setting and monitoring", the project participants use selected elements of the approved CDM methodology AM0009/Version 03.1 for justification of the baseline choice and additionality		OK



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		<p>argumentation. It is described in PDD Section B.1.1. how the applicability conditions of AM0009/Version 03.1 are fulfilled in the context of the project.</p> <p>A seeming deviation from the methodology concerns the applicability condition that the recovered gas and the products replace in the market the same type of fuels or fuels with a higher carbon content per unit of energy.</p> <p>According to the PDD, dry gas recovered from APG will be temporarily stored in the underground storage and will not enter in 2010-2012 into the gas transportation system (GTS) and thus, during these years there is not actual replacement of the natural gas by the project.</p> <p>Nonetheless, the CO<sub>2</sub> and CH<sub>4</sub> emissions due to flaring in current practices no more take place in 2010-2012 and thus, emissions previously existed are really prevented. In fact, the project deals with just the deferred, for a few years, replacement of the natural gas in the GTS. This is reasonably explained in PDD Section B.2.</p> <p>According to cash flow analysis, the amount of dry gas accumulated during 2010-2012 will be transported to end users in 2013. Therefore, the project is in no way a storage</p>		
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			activity.		
B.1.4. Are the basic assumptions of the baseline methodology in the context of the project activity presented (See Annex 2)?	1,9,12	DR	Basic assumptions of the baseline methodology concern the chemical composition of APG incoming to booster pump station (current data of lab technical analysis) and the estimated maximum volumes of APG flared (data of technical project [9]). This data is given in Annex 2. It is also assumed that APG flaring is not prohibited locally by the licence for the use of the Kharampur oil field or country-wide by the Russian legislation. All these assumptions were checked during the site visit and were found adequate.		OK
B.1.5. Is all literature and sources clearly referenced?	1	DR	Relevant literature and sources are clearly referenced.		OK
<b>B.2. Description of how the anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the JI project</b>					
B.2.1. Is the proposed project activity additional?	1, 2, 4	DR	To prove the project additionality, the provisions of the additionality tool [4] was used instead of the combined tool referred to in ACM 0009/Version 03.1, as not all potential alternative scenarios to the proposed project activity were available options to project participants.  Continuation of APG flaring was identified as the only realistic and credible alternative		



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			<p>scenario to the project activity that is in compliance with mandatory legislation and regulations.</p> <p>The investment analysis, complemented by the sensitivity analysis, demonstrated that the proposed project activity is not financially attractive and not economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs).</p> <p>Though unnecessary, two barriers to the project activity were analysed: APG price regulation &amp; disproportion, and limited access to GTS.</p> <p>Common practice analysis is not clearly stated and is focused instead on the country-wide problem of APG utilisation. This leaves the additionality issue not proven in full. Please clarify if similar activities cannot be observed or such exist but have essential distinctions from the project activity.</p>	GL-03	OK
B.2.2. Is the baseline scenario described?	1,2	DR	Refer to B.1.		OK
B.2.3. Is the project scenario described?	1,2	DR	This is the alternative 6 “Recovery and transportation of APG and the products of its processing to final consumers” which is selected based on review of seven plausible scenarios, listed in ACM 0009/Version 03.1. The project scenario is described in sufficient detail in PDD Section A.4.3.		OK



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B.2.4. Is an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario included?	1,2	DR	Please refer to PDD Section A.4.3. and Section B.2. The termination of APG flaring and the realisation of APG recovery and utilization leads to reductions of the GHG emissions below those that would have occurred in the absence of the project.		OK
B.2.5. Is it demonstrated that the project activity itself is not a likely baseline scenario?	1,4	DR	Refer to PDD Section B.1. and Section B.2. The project activity without registration under JI mechanism is not a likely baseline scenario due to the existing investment, institutional, and technological barriers to the project implementation. Anyway, it is shown by the investment analysis that the project activity is not economically and financially feasible without the revenue from the sale of certified emission reductions.		OK
B.2.6. Are national policies and circumstances relevant to the baseline of the proposed project activity summarized?	1	DR	An extensive review of policies and circumstances relevant to the baseline of the proposed project activity is presented in PDD Sections B.1. (ref. to Alternative 2 "On-site APD flaring") and B.2. (ref. to "Common Practice Analysis").		OK
<b>B.3. Description of how the definition of the project boundary is applied to the project activity</b>					
B.3.1. Are the project's spatial (geographical) boundaries clearly defined?	1	DR	Refer to A.4.1.4.		OK



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<b>B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline</b>					
B.4.1. Is the date of the baseline setting presented (in DD/MM/YYYY)?	1,14	DR	The date of the baseline setting is presented as 15/09/2008.		OK
B.4.2. Is the contact information provided?	1	DR	CTF Consulting Ltd. (Moscow); Contact person: Konstantin Myachin, Carbon project manager; Ph. +7 495 984 59 51 e-mail: <a href="mailto:konstantin.myachin@carbontradefinance.com">konstantin.myachin@carbontradefinance.com</a>		OK
B.4.3. Is the person/entity also a project participant listed in Annex 1 of PDD?	1	DR	CTF Consulting Ltd. is an affiliate of the project participant Carbon Trade and Finance SICAR S.A. listed in Annex 1 of PDD.		OK
<b>C. Duration of the small-scale project and crediting period</b>					
<b>C.1. Starting date of the project</b>					
C.1.1. Is the project's starting date clearly defined?	1,5	DR	June 2010 is indicated as the project's starting date in PDD section C1.		OK
<b>C.2. Expected operational lifetime of the project</b>					
C.2.1. Is the project's operational lifetime clearly defined in years and months?	1,5	DR	30 years between 2010 and 2040.		OK
<b>C.3. Length of the crediting period</b>					
C.3.1. Is the length of the crediting period specified in years and months?	1,5	DR	It is specified as 3 years from 01/01/2010 to 31/12/2012. Please clarify why the start of the crediting	GL-04	OK



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			period is defined as on 01/01/2010 though the starting date of project activity is defined as June 2010.		
<b>D. Monitoring Plan</b>					
<b>D.1. Description of monitoring plan chosen</b>					
D.1.1. Is the monitoring plan defined?	1,3	DR	The monitoring plan is defined based on the AM0009/Version 02.1 "Extraction and utilization of gas from oil wells that would otherwise be flared" with justified deviations (ref. to D.1.4).		OK
D.1.2. Option 1 – Monitoring of the emissions in the project scenario and the baseline scenario.	1,3	DR	All the monitoring endpoints, measured parameters and formulas used are identified.		OK
D.1.3. Data to be collected in order to monitor emissions from the project, and how these data will be archived.	1,3	DR	Data to be collected and the approach to archiving them are in accordance with AM0009/Version 02.1.		OK
D.1.4. Description of the formulae used to estimate project emissions (for each gas, source etc.; emissions in units of CO2 equivalent).	1,2, 3,7	DR	The basic formulas used to estimate project emissions are taken from AM0009/ Version 02.1. Refer to PDD Formulae D.1.1.2.-1.  Reasonable improvements were made to the formulas as follows: (1) electricity consumption is taken into account as per ACM 0009/Version 03.1; (2) methane emissions factors for processing, storage and transportation processes were calculated by IPCC, rather than EPA, method; (3) fugitive emissions due to		OK



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			<p>carbon-black firing were accounted.</p> <p>Electrical grid emission factor was calculated by the method of Carbon Trade &amp; Finance SICAR S.A. justified in PDD Annex 4.</p> <p>Emission factors for technological processes were calculated by 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 4, Section 4.2. The rationale for this amendment was appropriately justified in PDD Section D.1.1.2.</p> <p>Methane emissions due to underfiring of APG in flares (carbon-black flaring conditions) were calculated in accordance with the Guidelines [8] approved by the State Committee for Environmental Protection.</p>		
D.1.5. Relevant data necessary for determining the baseline of anthropogenic emissions of greenhouse gases by sources within the project boundary, and how such data will be collected and archived.	1,3	DR	Data to be collected and the approach to collecting and archiving them are in accordance with AM0009/ Version 02.1.		OK
D.1.6. Description of the formulae used to estimate baseline emissions (for each gas, source etc, emissions in units of CO2 equivalent).	1,3, 8	DR	The formulae used to estimate baseline emissions is taken from AM0009/ Version 02.1. Refer to PDD Formulae D.1.1.4-1. Reasonable improvements were made to the		OK



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			formula to take account, where appropriate, of carbon-black firing conditions characterized by underfiring of methane [ 8].		
D.1.7. Option 2 – Direct monitoring of emissions reductions from the project (values should be consistent with those in section E)	1,3	DR	Not applicable.		OK
D.1.8. Data to be collected in order to monitor emission reductions from the project, and how these data will be archived.	1,3	DR	Not applicable.		OK
D.1.9. Description of the formulae used to calculate emission reductions from the project (for each gas, source etc; emissions/emission reductions in units of CO2 equivalent).	1,3	DR	Not applicable.		OK
D.1.10. If applicable, please describe the data and information that will be collected in order to monitor leakage effects of the project.	1,3	DR	Fugitive emissions due to fuel substitution by final consumers are not taken into account as per AM0009/ Version 02.1.		OK
D.1.11. Description of the formulae used to estimate leakage (for each gas, source etc.; emissions in units of CO2 equivalent).	1,3	DR	Not applicable.		OK
D.1.12. Description of the formulae used to estimate emission reductions for the project (for each gas, source etc.; emissions in units of CO2 equivalent).	1,3	DR	The formula used to estimate the emission reductions from the project is taken from AM0009/ Version 02.1		OK
D.1.13. Is information on the collection and archiving of information on the environmental impacts of the project provided?	1, 12	DR I	Upon the approval of the legally required “Project of emission limits for facilities involved in preparation and transportation of oil, gas and condensate of RN-Purneftegas”, the company obtained the Emission Permit No. 162, which quantifies its environmental		OK



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			impacts. The company regularly monitors its emission parameters, according to the schedule of environmental impact monitoring, which was checked and confirmed during the site visit.		
D.1.14. Is reference to the relevant host Party regulation(s) provided?	1,12	DR I	Refer to PDD Section D.1.5.		OK
D.1.15. If not applicable, is it stated so?	1	DR	Refer to D.1.14.		OK
<b>D.2. Qualitative control (QC) and quality assurance (QA) procedures undertaken for data monitored</b>					
D.2.1. Are there quality control and quality assurance procedures to be used in the monitoring of the measured data established?	1,3, 12, 14	DR I	The company has quality control and quality assurance procedures based on the certified Environmental Management System to ISO 14001:2004. The particular QC and QA procedures are outlined in PDD Section D.2 and will be further elaborated before the project commissioning.		OK



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<b>D.3. Please describe of the operational and management structure that the project operator will apply in implementing the monitoring plan</b>				
D.3.1. Is it described briefly the operational and management structure that the project participants(s) will implement in order to monitor emission reduction and any leakage effects generated by the project	1,8	DR I	Refer to PDD Flowchart D.3.2 and Annex 3 (ref. to matrix of responsibilities).	OK
<b>D.4. Name of person(s)/entity(ies) establishing the monitoring plan</b>				
D.4.1. Is the contact information provided?	1	DR	CTF Consulting Ltd. (Moscow); Contact person: Konstantin Myachin, Carbon project manager; Ph. +7 495 984 59 51 e-mail: <a href="mailto:konstantin.myachin@carbontradefinance.com">konstantin.myachin@carbontradefinance.com</a>	OK
D.4.2. Is the person/entity also a project participant listed in Annex 1 of PDD?	1	DR	CTF Consulting Ltd. is an affiliate of the project participant Carbon Trade and Finance SICAR S.A. listed in Annex 1 of PDD.	OK
<b>E. Estimation of greenhouse gases emission reductions</b>				
<b>E.1. Estimated project emissions</b>				
E.1.1. Are described the formulae used to estimate anthropogenic emissions by source of GHGs due to the project?	1,3	DR	Refer to D.1.4.	OK
E.1.2. Is there a description of calculation of GHG project emissions in accordance with the formula	1,3	DR	Refer to PDD Section D.1.1.2.	OK



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specified in for the applicable project category?					
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	1,3	DR	The conservative assumptions of AM0009/Version 02.1 were supplemented by a more accurate estimation of electric grid emission factors and methane emission factors for technological processes (refer to D.1.4) .		OK
<b>E.2. Estimated leakage</b>					
E.2.1. Are described the formulae used to estimate leakage due to the project activity where required?	1,3	DR	Refer to D.1.10.		OK
E.2.2. Is there a description of calculation of leakage in accordance with the formula specified in for the applicable project category?	1,3	DR	Not applicable		OK
E.2.3. Have conservative assumptions been used to calculate leakage?	1,3	DR	Not applicable		OK
<b>E.3. The sum of E.1 and E.2.</b>					
E.3.1. Does the sum of E.1. and E.2. represent the small-scale project activity emissions?	1,3	DR	The project falls under category of large scale projects. As no leakage is expected, $E1+E2=E1$ .		OK
<b>E.4. Estimated baseline emissions</b>					
E.4.1. Are described the formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category?	1,3	DR	Refer to D.1.6.		OK
E.4.2. Is there a description of calculation of GHG baseline emissions in accordance with the formula	1,3	DR	Refer to PDD Section D.1.1.4.		OK



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specified for the applicable project category?					
E.4.3. Have conservative assumptions been used to calculate baseline GHG emissions?	1	DR	Accounting of black-carbon firing can be considered as a conservative assumption.		OK
<b>E.5. Difference between E.4. and E.3. representing the emission reductions of the project</b>					
E.5.1. Does the difference between E.4. and E.3. represent the emission reductions due to the project during a given period?	1,3	DR	Refer to PDD Section E.5.		OK
<b>E.6. Table providing values obtained when applying formulae above</b>					
E.6.1. Is there a table providing values of total CO <sub>2</sub> abated?	1	DR	The presented Table E.6.1. does not provide the total values of baseline emissions, project emissions and emission reductions for the crediting period, as stipulated in the JISC "Guidance for the users of the PDD Form.	CAR-04	OK
<b>F. Environmental Impacts</b>					
<b>F.1. Documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party</b>					
F.1.1. Has an analysis of the environmental impacts of the project been sufficiently described?	1, 12, 15	DR I	An analysis of the environmental impacts of the project is not described in PDD though it is available in technical project design documents [15]. Please clarify this issue in PDD.	GL-05	OK
F.1.2. Are there any host Party requirements for an Environmental Impact Assessment (EIA), and if	1, 16,	DR	There are the host Party requirement to carry out an Environmental Impact Assessment		OK



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yes, is an EIA approved?	17		(EIA) for the activity like the present project activity. The EIA for the relevant technical projects are now being prepared and should be approved prior to the project commissioning.		
F.1.3. Are the requirements of the National Focal Point being met?	1,19	DR	The requirements of the National Focal Point to present the EIA should be met before the submission of the project to the Coordination Centre of National Focal Point.		OK
F.1.4. Will the project create any adverse environmental effects?	1, 12, 15	DR I	Conclusion is pending a follow up on F.1.1.	Pending	OK
F.1.5. Are transboundary environmental impacts considered in the analysis?	1	DR	The project activity has no transboundary environmental impacts.		OK
F.1.6. Have identified environmental impacts been addressed in the project design?	1, 12, 14	DR I	Refer to F.1.2.		OK
<b>G. Stakeholders' comments</b>					
<b>G.1. Information on stakeholders' comments on the project, as appropriate</b>					
G.1.1. Is there a list of stakeholders from whom comments on the project have been received?	1, 12, 18	DR I	Public hearings on the project were held on 21.02.2008. The list of the participants is given in PDD Section G.1.		OK
G.1.2. The nature of comments is provided?	1, 12, 18	DR I	Please clarify the nature of the comments.	CL-06	OK

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G.1.3. Has due account been taken of any stakeholder comments received?	1,12	DR I	Conclusion is pending a follow up on G.1.2.	Pending	OK
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Table 3

**Baseline and Monitoring Methodologies:  
AM0009/Version 03.1 (ref. [2]) and AM0009/Version 02.1 (ref. [3])**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
<b>1 Applicability</b>					
1.1 Does the project activity recover and utilize associate gas from oil wells that was previously flared or vented?	1,2	DR	Refer to A.4.3.1 in Table 2.		OK
1.2 Does the project activity meet the specified conditions for methodology applicability?	1,2,3	DR	Refer to B.1.3 in Table 2.		OK
1.3 Is the identified baseline scenario the continuation of the current practice of flaring of the associated gas?	1,2	DR	Refr to B.2.1 in Table 2.		OK
<b>2 Baseline Methodology</b>					
<b>2.1 Project boundary</b>					
2.1.1 Does the project boundary include project oil wells, the site where the APG was flared in the absence of the project, the gas recovery and delivery infrastructure, and the recovered gas processing facility?	1,2	DR	Refer to PDD Section B.3. and Flowchart B.3.1.		OK
2.1.2 Is the inclusion of different emissions sources in the project boundary justified?	1,2	DR	Refer to PDD Section B.3., Table B.3.1.		OK
<b>2.2 Identification of the baseline scenario and demonstration of additionality</b>					
2.2.1 Is Step 1 "Identify plausible scenarios" carried out with regard to the listed alternatives?	1,2	DR	Refer to PDD Section B.1. All the listed alternatives were analysed including the baseline and the project scenario.		OK
2.2.2 Is Step 2 "Evaluate legal aspects" carried out addressing the alternatives permitted or restricted by	1,2	DR	Refer to PDD Section B.1.		OK



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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
law?					
2.2.3 Is Step 3 "Evaluate the economic attractiveness of alternatives" carried out?	1,2	DR	Refer to PDD Section B.2. This Step was carried out with regard to the proposed project activity what is in line with the "Tool for the demonstration and assessment of additionality" (Version 05.1). The IRR analysis determined that the project is not economically feasible without the revenue from the sale of certified emission reductions.		OK
<b>2.3 Baseline emissions</b>					
2.3.1 Are the baseline emissions calculated by the equation from the methodology?	1,3	DR	Refer to equation (D.1.1.4.-1) in PDD Section D.1.1.4, which includes an additional term taking account of carbon-black firing conditions characterized by underfiring of methane.		OK
<b>2.4 Project emissions</b>					
2.4.1 Are all the sources of the project emissions calculated by the equations from the methodology?	1,3	DR	Yes, as regards the following sources of CO <sub>2</sub> emissions: (i) combustion, flaring or venting of recovered gas, and (ii) accidental event during transportation of dry gas in pipelines. The source (iii) gas leaks during the storage and transportation were calculated by more accurate equations from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 4, Section 4.2. The source (iv) electricity consumption was added as per AM0009/Version 03.2 and calculated		OK



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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			according to the verified method by Carbon Trade and Finance SICAR S.A.		
<b>2.5 Leakage</b>					
2.5.1 Does the project have a leakage?	1,3	DR	As fuels of the project activity substitute fuels with a higher carbon intensity, emission reductions were not adjusted as a conservative assumption.		OK
<b>2.6 Emission reductions</b>					
2.6.1 Are the emissions reductions calculated by the equation from the methodology?	1,3	DR	Refer to the equation (D.1.4.-1) from PDD Section D.1.4.		OK
<b>3 Monitoring Methodology</b>					
3.2.1 Are the monitoring points organised as per the methodology?	1,3	DR	Refer to PDD Section D.1 and Graph D.1.1		OK
3.2.2 Are all the parameters to be monitored included in the monitoring plan?	1,3	DR	Yes, as regards the parameters of APG, dry gas, and BFLH flows and accidental events.		OK
3.2.3 Are quality control and quality assurance procedures envisaged as per the methodology?	1,2	DR	Yes, with regard to all monitored parameters.		OK

**Table 4 Legal requirements**

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
<b>1. Legal requirements</b>					
1.1. Is the project activity environmentally licensed by the competent authority?	1,12	DR, I	Please refer to D.1.13 in Table 2.		OK
1.2. Are there conditions of the environmental permit? In case of yes, are they already being met?	1,12	DR, I	Please refer to 1.1 above.		OK
1.3. Is the project in line with relevant legislation and plans in the host country?	1,12	DR, I	Yes, the project is in line with relevant legislation and plans in the host country.		OK



Table 5 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3 and 4	Summary of project owner response	Determination team conclusion
<p><b>CAR 01</b> The presented Table E.6.1. does not provide the total values of baseline emissions, project emissions and emission reductions for the crediting period, as stipulated in the JISC "Guidance for the users of the PDD Form.</p>	E.6.1	Table E.6.1. was duly corrected to show the total values of baseline emissions, project emissions and emission reductions for the crediting period	This CAR is closed based on the correction made to the PDD.
<p><b>CL 01</b> Please clarify the purpose of the project.</p>	A.2.1	The purpose of the proposed Joint Implementation project is useful utilization of the associated petroleum gas at the production sites of Kharampur group of oil-fields of Rosneft company, operated by its subsidiary, RN-Purneftegas, Ltd.	The omission in the PDD is eliminated. This CL is closed based on the amendment to the PDD.
<p><b>CL 02</b> Please clarify from which year dry gas is supplied to the GTS.</p>	A.4.3.1	2013 is now indicated throughout PDD version 1.3 dated 24/12/2008 as the year from which the dry gas will be supplied to the GTS.	The uncertainty in the PDD is eliminated. This CL is closed based on the amendment to the PDD.
<p><b>CL 03</b> Common practice analysis is not clearly stated and is focused instead on the country-wide problem of APG utilisation. This leaves</p>	B.2.1	The Russian APG is processed mainly by SIBUR company, which is a petrochemical holding. However, large gas processing plants (GPP) of SIBUR located in Khany-Mansiisky	The indefiniteness in the PDD is eliminated. This CL is closed based on the amendment to the PDD.



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3 and 4	Summary of project owner response	Determination team conclusion
<p>the additionality issue not proven in full. Please clarify if similar activities cannot be observed or such exist but have essential distinctions from the project activity.</p>		<p>and Yamalo-Nenetsky autonomous districts are constructed 30 and more years ago during Soviet Union time. The last gas processing plant in USSR and Russia was commissioned in 1989. It means that those plants cannot be considered in common practice analysis because were implemented in absolutely other economic circumstances and time.</p> <p>There are no examples of large scale greenfield APG processing implemented so far solely by oil company as Rosneft. There are a number of examples of small scale APG processing. For large scale processing there is one recent example of commissioning the previously inoperative gas processing installation MAU-3 at Nizhnevartovsky GPP performed by TNK-BP-SIBUR joint venture. However, this project is not a greenfield but only recovery of previously abandoned equipment.</p> <p>The other and main difference is that in most of the cases oil companies realize their APG utilization programmes because of mandatory APG utilization rate prescribed in the license for oil field exploration. However, as it is mentioned before, Rosneft does not have a mandatory</p>	



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3 and 4	Summary of project owner response	Determination team conclusion
		APG utilization rate for Kharampur group of oilfields and preformed project is a voluntary activity.	
<p><b>CL 04</b> Please clarify why the start of the crediting period is defined as 01/01/2010 though the starting date of project activity is defined as June 2010</p>	C.3.1	Starting date is July of 2008.	The ambiguity in the PDD is eliminated. This CL is closed based on the amendment made to the PDD.
<p><b>CL 05</b> An analysis of the environmental impacts of the project is not described in PDD though it is available in technical project design documents [15]. Please clarify this issue in PDD.</p>	F.1.1	<p>Under this Law, two environmental impact assessments (EIA) has already developed by Tyumen research and development and engineering center of oil and gas technology for the following projects:</p> <ul style="list-style-type: none"> <li>• Technical project “Collection, preparation, compressing and injection of low-pressure gas of Kharampur group of oil-fields into Temporary underground gas storage (TUGS), in the amount of 1 billion m<sup>3</sup> per year” (by VolgaUralNIPiGas Ltd., 2007);</li> <li>• Technical project “Construction and operation of Temporary underground gas storage for natural gas at Kharampur oil-production site on the basis of Cenomanian gas deposit for storage of dry gas of</li> </ul>	The omission in the PDD is eliminated. This CL is closed based on the amendment made to the PDD.



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3 and 4	Summary of project owner response	Determination team conclusion
		<p>Kharampur group of oil-fields” (by VNIIGAZ Ltd., 2007).</p> <p>These documents shall be submitted to State expertise before project implementation for approval. The Expertise shall decide if the project design documents meet all requirements of currently enforced normative acts.</p> <p>Following types of anthropogenic impacts were marked out:</p> <ul style="list-style-type: none"> <li>3. mechanical factors</li> <li>4. technological factors</li> </ul> <p>Mechanical factors associate with construction work – surface layout, filling road, pipelining, building and construction works. One of the main mechanical factors during building and construction works is unregulated thoroughfare transport.</p> <p>Technological factors associate with environmental pollution. The pollution of landscape takes place at all stages of life cycle of the objects (BPS, PWD, BCS, MPS, etc). Emergency will be the reason for environmental pollution. Noise pollution renders considerable contribution in the whole of environmental pollution.</p>	



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Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2, 3 and 4	Summary of project owner response	Determination team conclusion
		However using up-to-date technology during building and construction works and operation objects environmental impact will be minimal.	
<p><b>CL 06</b> Please clarify the nature of the comments.</p>	G.1.2	<p>During the public hearings the stakeholders touched following topics:</p> <ol style="list-style-type: none"> <li>1. Taking building and construction works by local organization. This makes supplement for local budget and gives additional employment of local labor force.</li> <li>2. Training of local labor force and employment in the objects.</li> <li>3. Helping to construction of museum in Kharampur village and other social and cultural objects.</li> <li>4. Noise pollution of pipelining through the rivers will be considerable.</li> <li>5. Unauthorized access to the protected territory for fishing.</li> </ol> <p>All above-listed opinions were taken into account by specialists of RN Purneftegas”.</p>	The omission in the PDD is eliminated. This CL is closed based on the amendment made to the PDD.



## Appendix B: Verifiers CV's

### **Mr. Dinesh Shetty:**

Lead Verifier

Bureau Veritas Certification India - Lead Auditor, Lead Tutor, Lead Verifier

He is a Chemical Engineer with over all 16 years of experience. He has worked with National Productivity Council of India as Project Consultant and trainer for projects in the field of Environment Management for thirteen years. Initial one year in Bureau Veritas Certification, he was working as lead auditor and trainer for ISO 9001:2000, ISO 14001:2004 and OHSAS 18001 standards in Bureau Verification Certification. For the last two and half years he is involved in the validation and verification of projects under Clean Development Mechanism. He has undergone intensive training on Clean Development Mechanism. He involved in the validation and verification processes of more than 35 CDM projects

### **Leonid Yaskin, PhD (thermal engineering)**

Verifier.

Bureau Veritas Certification Rus General Director- Lead Auditor, Lead Tutor, Verifier

He has over 30 years of experience in heat and power R&D, engineering, and management, environmental science. He worked in Krrzhizhanovsky Power Engineering Institute, All-Russian Teploelectroproject Institute, JSC Energoperspectiva. He worked for 8 years on behalf of European Commission as a monitor of Technical Assistance Projects. He is a Lead auditor of Bureau Veritas Certification for Quality Management Systems (IRCA registered), Environmental Management System (IRCA registered), Occupational Health and Safety Management System (IRCA registered). He performed over 250 audits since 2002. Also he is a Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and a Lead Tutor of the IRCA registered OHSAS 18001 Lead Auditor Training Course. He is an Assuror of Social Reports. He has undergone intensive training on Clean Development Mechanism /Joint Implementation and is involved in the determination and verification of over 75 JI and CDM projects.

### **Vera Skitina, PhD (chemicals)**

Verifier

Bureau Veritas Certification Rus Technical Director - Lead Auditor, Lead Tutor, Verifier

She has over 15 years of experience in powder metallurgy, aluminium metallurgy, plastic metal working, physical-chemistry processes, gas production at power plant, environmental science. She worked in Irkutsk Aluminium Plant, SUAL powder metallurgy plant, Nadvoitzky aluminium plant, Central Scientific Institute of Metals. She is a Lead auditor of Bureau Veritas Certification for Quality Management Systems (IRCA registered), Environmental Management System (IRCA registered), Occupational Health and Safety Management System (IRCA registered). She performed over 200 audits since 2004. Also she is a Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and a Lead Tutor of the IRCA registered ISO 9001 Lead Auditor Training Course. She is an Assuror of Social Reports. She has undergone intensive training on Clean Development Mechanism /Joint Implementation and is involved in the determination and verification of over 30 JI projects.