



VALIDATION REPORT GAZPROM GERMANIA GMBH

CAPTURE AND PROCESSING LOW PRESSURE ASSOCIATED GAS FROM THE NEFT DASHLARI AND PALCHIQ PILPILASSI OIL FIELDS OF SOCAR

REPORT No.TURKEY-VAL/TURKEY-
VAL/CER.630.10.C45/2011

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BUREAU VERITAS CERTIFICATION

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VALIDATION REPORT

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06/06/2011	Bureau Veritas Certification Holding SAS
Client:	Client ref.:
GAZPROM GERMANIA GMBH	Mr. DAVID GRAEBE

Summary:

Bureau Veritas Certification has conducted the validation of Capture and processing low pressure associated gas from the Neft Dashlari and Palchiq Pilpilassi oil fields of SOCAR, owned by State Oil Company of Azerbaijan Republic (SOCAR), which is located in Neft Dashlari and Palchiq Pilpilassi offshore oilfields in the Absheron Peninsula Region of Baku, Azerbaijan, on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The validation 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 additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion. The overall validation, from Contract Review to Validation Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the validation process is a list of Clarification Requests, Corrective Actions Requests, and Forward Actions Requests (CLs, CARs and FARs), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies the baseline and monitoring methodology AM0009 Version 05 and meets all relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests the registration of the project as a CDM project activity.

Report No.:	Subject Group:	
TURKEY-CER/CER.630.10.C45/2011	CDM	
Project title:		
Capture and processing low pressure associated gas from the Neft Dashlari and Palchiq Pilpilassi oil fields of SOCAR		
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Internal Technical Review carried out by:		
Mr. Robin WANG		
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Work approved by:

Flavio Gomes

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Abbreviations

BVCH	Bureau Veritas Certification Holding SAS
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
FAR	Forward Action Request
GHG	Green House Gas(es)
MoV	Means of Verification
MP	Monitoring Plan
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual



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1. INTRODUCTION

GAZPROM Germania GmbH has commissioned Bureau Veritas Certification to validate its CDM project Capture and processing low pressure associated gas from the Neft Dashlari and Palchiq Pilpilassi oil fields of SOCAR (hereafter called “the Project”) at Neft Dashlari and Palchiq Pilpilassi offshore oilfields in the Absheron Peninsula Region of Baku, Azerbaijan.

This report summarizes the findings of the validation 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 objective of a validation is to provide a thorough and 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 validated in order to confirm that the project design, as documented, is sound and reasonable, and meets the applicable CDM requirements and the identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

1.2. Scope

The validation scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the requirements of paragraph 37 of the CDM M&Ps, the applicability conditions of the selected methodology and guidance issued by the Board.

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

1.3. Validation Team

The assessment team and internal technical reviewer team consist of the following personnel:

FUNCTION	NAME	TA 10.2	TASK PERFORMED*
Team Leader	Mrs. Burcu MUTMAN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input checked="" type="checkbox"/> RI <input type="checkbox"/> TR
Team Member	Mr. Mustafa UNAL	<input type="checkbox"/>	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input checked="" type="checkbox"/> RI <input type="checkbox"/> TR
Technical Specialist	Mr. Leonid YASKIN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input type="checkbox"/> TR
Financial Specialist	Mr. Murat GENCER	<input type="checkbox"/>	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input type="checkbox"/> TR
Internal Technical	Mr. Robin WANG	<input checked="" type="checkbox"/>	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input checked="" type="checkbox"/> TR



Reviewer (ITR)			
Specialist supporting ITR	N.A.	<input checked="" type="checkbox"/>	<input type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input checked="" type="checkbox"/> TR

*DR = Document Review; SV = Site Visit; RI = Report issuance; TR = Internal Technical Review

2. METHODOLOGY

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

In order to ensure transparency, a validation protocol was customized for the project, according to the version 01.2 of the Clean Development Mechanism Validation and Verification Manual, issued by the Executive Board at its 55th meeting on 30/07/2010 (Ref-22). The protocol shows, in a transparent manner, criteria (requirements), means of validation and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The completed validation protocol is enclosed in Appendix A to this report.

2.1. Review of Documents

The Project Design Document (PDD) submitted by GFA ENVEST GmbH and additional background documents related to the project design and baseline were reviewed.

Furthermore, cross checks were made between information provided in the PDD and information from sources other than those used, the DOE's sectoral or local expertise and, independent background investigations.

To address Bureau Veritas Certification corrective action and clarification requests, GFA ENVEST GmbH revised the PDD and resubmitted it on 26/12/2012.

The validation conclusions presented in this report relate to the project as described in the PDD version 01.9.

2.2. Follow-up Interviews

On 19-20/07/2010, Bureau Veritas Certification performed a site visit and interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of State Oil Company of Azerbaijan Republic and GFA ENVEST GmbH were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
State Oil Company of Azerbaijan Republic (the Project Owner)	<ul style="list-style-type: none"> ➤ Project background information and CDM consideration. ➤ Project technology, operation and maintenance. ➤ Project approval and implementation status. ➤ Project management and monitoring plan. ➤ Stakeholder consultation process. ➤ Common practice in the area. ➤ Government policies related to the project activity.
Local Stakeholder	<ul style="list-style-type: none"> ➤ Project background in details ➤ Stakeholder comments ➤ Social and environmental impact of the project
GFA ENVEST GmbH (the Consultant)	<ul style="list-style-type: none"> ➤ Applicability of selected methodology. ➤ Baseline determination. ➤ Emission reductions calculation. ➤ Emission reduction monitoring plan.

2.3. Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the validation is to resolve issues that require further elaboration, research or expansion prior to Bureau Veritas Certification's positive conclusion on the project design.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:

- (a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable, verifiable and additional emission reductions;
- (b) The applicable CDM requirements have not been met;
- (c) There is a risk that emission reductions cannot be monitored or calculated.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A Forward Action Request (FAR) may also be raised during validation, to identify issues related to project implementation that require review during the first verification of the project activity.

To guarantee the transparency of the validation process, the issues raised, the responses provided by the project participants, the means of validation of such responses and references to any resulting changes in the PDD or supporting annexes are documented in the Validation Protocol in Appendix A.

2.4. Internal Technical Review

The validation report underwent an Internal Technical Review (ITR) before requesting registration of the project activity.



The ITR is an independent process performed to examine thoroughly that the process of validation has been carried out in conformance with the requirements of the validation scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the validation report to the reviewer, including any necessary validation documentation. The reviewer reviews the submitted documentation for conformance with the validation scheme. This will be a comprehensive review of all documentation generated during the validation process.

When performing an Internal Technical Review, the reviewer ensures that:

- The validation activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs and CLs during the validation exercise, review of sample documents.

The reviewer may raise Clarification Requests to the validation team and will discuss these matters with the Team Leader.

After the agreement of the responses to the Clarification Requests from the validation team as well as the PP(s), the finalized validation report is accepted for further processing such as uploading via the UNFCCC interface.

3. VALIDATION CONCLUSIONS

In the following sections, the conclusions of the validation are stated.

The findings from the desk review of the original project design documents and the findings from interviews are described in the Validation Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in 11 CAR(s), 44 CL(s) and 0 FAR(s).

The CARs and CLs were closed out based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section corresponds to the VVM paragraph.

3.1. Approval (43-44)

The letters of approval have been received and the following support documentation has been verified by Bureau Veritas Certification:



The DNA of Republic of Azerbaijan has issued a Letter of Approval (Ref-No 4/2061-01-15) on 24/09/2010 authorizing State Oil Company of Azerbaijan Republic as the Project Participant and confirms that the Project contributes to Republic of Azerbaijan's Sustainable development. (Ref-01)

The letter of Approval prepared for "Azerbaijan, Absheron Peninsula, Collection and utilization of low-pressured associated gas from Neft Dashlari and Palchiq Pilpilasi oil fields" refers to the following information;

- Azerbaijan Republic has ratified Kyoto Protocol;
- The Ministry of Ecology and Natural Resources was appointed the Designated National Authority by the Decree of the President of Azerbaijan Republic, dated April 1, 2005;
- Azerbaijan Republic participates voluntarily in the proposed CDM activity;
- The project serves to achieving sustainable development purposes in Azerbaijan Republic;

And DNA Approved that;

- The State Oil Company of Azerbaijan Republic has the right to participate as the Project Participant and as the Project Owner in the project;
- The State Oil Company of Azerbaijan Republic is the owner of produced Certified Emissions Reductions;
- The State Oil Company of Azerbaijan Republic has the right to produce Certified Emissions Reductions and to open a permanent account in the CDM register;
- The Designated National Authority will assist in agreed transferring of Certified Emissions Reductions between State Oil Company of Azerbaijan Republic and partner organization;
- It agrees for appointment of a sole physical (or juridical) person from the State Oil Company or by the State Oil Company for establishing all communications with United Nations Framework Convention on Climate Change Secretariat, CDM Executive Board and CDM register administration.

The DNA of Federal Republic of Germany has issued a Letter of Approval (Ref-No E.1.6-18410-0436) on 28/11/2012, authorizing GAZPROM Germania GmbH as the Project Participant for the Project in Republic of Azerbaijan.

Bureau Veritas Certification received these letters of approval from the project participants and does not doubt the letters' authenticity.

The letters of approval do not refer to a specific version of the validation report.

In accordance with para. 45 – 48/VVM, Bureau Veritas Certification considers that:

- (a) Each letter confirms the Party is a Party to the Kyoto Protocol;



- (b) Each letter confirms the participation is voluntary;
- (c) In the case of the host Party, the letter confirms that the proposed project activity contributes to the sustainable development of the country;
- (d) Each letter refers to the precise proposed project activity title in the PDD being submitted for registration.
- (e) The letter(s) of approval is unconditional with respect to the items above.
- (f) The letter(s) of approval has been issued by the respective Party's DNA and is valid for the proposed project activity under validation.

3.2. Authorization (49)

The participation for each project participant has been authorized by a Party of the Kyoto Protocol.

The validation team concludes this by the letter of approval of the host party is given by the Ministry of Ecology and Natural Resources of the Republic of Azerbaijan (dd. 24/09/2010, document # 4/2061-01-15) and by the letter of approval of the Federal Republic of Germany (dd. 28/11/2012 , document # E1.6-18410-0436)

3.3. Sustainable Development (52)

The host Party's DNA has confirmed the contribution of the Project to the sustainable development of the host Party. Please refer to section 3.1 of this report.

3.4. Modalities of Communications (58,61)

The validation team has performed due diligence on the MoC statement and validated the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories.

Bureau Veritas Certification confirms that the MoC statement complies with all relevant forms and requirements.

3.5. Project Design Document (63)

Bureau Veritas Certification hereby confirms that the PDD complies with the latest forms of the guidance documents for completion of PDD.

3.6. Changes in the Project Activity (17)

The major differences between the final version PDD and the webhosted PDD are listed in Table 2 below:



VALIDATION REPORT

Table 2 Changes between the final PDD and the webhosted PDD

Item	PDD version 1.01 (Webhosted)	PDD version 1.09 (Final)	Validation Opinion
Table B.3.2	CO2 stated as both baseline and project main emission source Others neglected as minor source	Justification revised to state that it is excluded for simplification.	CL3 has been raised about the issue and closed. Bureau Veritas Certification hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity.
Methodology applicability conditions	Update in accordance with AM009 v.04	Updated in accordance with AM009 v.5	CAR06 was closed as due additions were made Applicability conditions from the methodology and the tools applied is applicable to the Project, which, complies with all the applicability conditions therein.
Baseline alternatives	In line with AM009 v.04 requirements	Revised according to AM009 v.05, alternative scenarios have changed between versions	Determined alternatives are credible and are in line with the methodology
IRR of alternative scenarios	5,75% and 19,48 %	9,85% and 19,30%	CL17, CL37, CL22, CL24, CL26 were raised for corrections and improvements and were closed.
Common practice analysis	Caspian region oil producing countries evaluated.	Non-azeri companies from the transnational region defined are also	CAR10, CL21 raised and successfully closed.



		considered	Bureau Veritas Certification hereby confirms that the underlying assumptions regarding investment analysis are appropriate and the financial calculations are correct.
Project boundary	According AM009 v.04	Revised according to AM009 v05	Bureau Veritas Certification hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity.
Project description	Lacked detail on technical aspects.	Revised in line with the requirements of the methodology and further detail given regarding monitoring equipment and processes	Bureau Veritas Certification hereby confirms that the project description in the final PDD is accurate and complete in all respects.

3.7. Project Description (69)

The Project is the recovery of the low-pressure associated gas from the offshore oil platforms, which is currently vented, to be processed for use of the general population and industrial enterprises to displace other fossil fuels. Project is located in Neft Dashlari and Palchiq Pilpilassi offshore oilfields in the Absheron Peninsula Region of Baku, Azerbaijan, which has exact geographical coordinates that are classified by the Azerbaijan government.

Neft Dashlari is the first operating offshore oil platform in the world. It is current practice that (confirmed by the venting permit and at the project site) the low-pressure associated gas from the oil extraction process is vented and is harmful to the atmosphere considering that the methane global warming potential is 21 for 100 years. The project consist compressors for collecting and transportation of the recovered low-pressure associated gas with a pipeline system connecting eight collector platforms with the gathering gas pipeline, metering devices and auxiliaries (flow meters, remote operation controllers and automation system, differential manometers). This has been verified through the site visit, technical feasibilities (ref-04) and the technical specifications of the purchased equipment (ref-03).



Project aims to reduce low pressure (LP) associated petroleum gas (APG), vented prior to project activities, at eight offshore collector platforms, which are supplied by 50 connected platforms. To achieve this, compressors of type NQK- 7/1-5, 75 kW compressors which can compress 417.7 m³ of gas per hour, will be installed on all eight platforms and new gas collection pipeline system will connect the platforms and gather recovered gas to a central compressor facility. A total length of 19,977 m of pipeline with 150-200 mm diameter is expected to be built with a capacity of 150,000 m³, according to SOCAR (ref-05). Compression at the central hub will be realized through the use of 10GCNAM 2/5-55 type compressors. These are 1,177 kW compressors that can compress 10,800 m³ per hour (ref-03). Use of three separate central collection platforms, segregates project APG from gas transfers related to local energy production in the gas turbine power plant (GTPP) and transfers related to gas lift operations.

After recovered gas is collected and re-compressed at this central hub, it will be transferred to an onshore gas processing plant (GPP), using existing infrastructure. Transferred gas will be processed at the plant into hydrocarbon products: dry natural gas (to be fed into the Absheron Magistral Gas Pipeline for end-users), liquefied petroleum gas and 'unstable' gas for internal consumption at the GPP. No CNG production is planned.

Metering devices and auxiliaries required by the project activity consists of flow meters, remote operation controllers and automation system, differential manometers as indicated before. The flow-meters in the project are FloBoss – 107 devices. Device is equipped with sensors capable of monitoring multiple parameters at once (pressure, pressure drop and temperature) (ref-06). Positions of the devices shown in detail in the final PDD, figure A4.3.2. Remote operation controllers ROC – 107 and remote automation system Emerson are to be utilized (ref-06). Emerson devices will be monitoring temperature as well. Differential manometers located at the exit of the collector platforms, before the gas is transferred to the central compression platform. Manometers are to be of DSS-712-M1 type

The Project will result in annual emission reductions of 218,558 tCO₂e during the ten years of its fixed crediting period.

The validation team confirms that the estimated load factor of NQK-7/1-5 compressors are 77.71% with an efficiency of 0.23 kWh/m³ of compressed gas and for 10GCNAM 2/5-55 compressors the load factor is 48% with a corresponding efficiency of 0.073 kWh/m³ LP APG. Values have been sourced from technical specifications of the equipment (Ref-03), which is complying with the Para. 3.b of "Guidelines for the Reporting and Validation of Plant Load Factors" version 01.

The validation did not reveal any information indicating that the Project can be seen as a diversion of official development assistance (ODA) funding towards the host country.

The processes undertaken by the validation team to validate the accuracy and completeness of the project description include conducting a physical site inspection, reviewing available designs and feasibility studies.

Bureau Veritas Certification hereby confirms that the project description in the final PDD is accurate and complete in all respects.

3.8. Baseline and Monitoring Methodology

3.8.1. Applicability of the selected Methodology (77)

The Project uses the approved consolidated baseline and monitoring methodology AM0009 Version 05 – “Recovery and utilization of gas from oil wells that would otherwise be flared or vented” (Ref-33).

The applicability of the selected methodology is justified and assessed as follows:

- (1) The recovered gas related to the proposed project activity is not used for energy production on-site, as the Gas Turbine Power Plant (GTPP) feeding the site is supplied by other sources (SKS-1 and KS-4). Gas balance tables for the field (Ref-16) have been validated, indicating the abundance and use of other sources for gas lift or the GTPP operations.

However,

Recovered gas is transported to and compressed into a gas pipeline without prior processing and transported to a gas processing plant (GPP) where it is processed into hydrocarbon products (e.g. dry gas, LPG and condensate) that are either (i) transported to a gas pipeline directly, or (ii) compressed to CNG first, then transported by trailers/trucks/carriers and then decompressed and gasified again, before it finally enters the gas pipeline: compliance with this applicability condition was validated through Technical Feasibilities #10062, #10139, #10307 (Ref-04) and on-site interviews.

- (2) The project activity does not lead to changes in the process of oil-production, such as an increase in the quantity or quality of oil extracted, in the oil-wells within the project boundaries: project complies with the condition as validated through the production forecast tables for both sites (Ref-17). During site visit it is confirmed that the project activity does not lead changes in the process of oil-production in the Neft Dashlari and Palchiq Pilpilassi offshore oil wells and it is confirmed with the production forecast and the meeting with the project manager that the project activity.
- (3) Oil production is controlled with gas-lift-gas system and a change in the volume of the high pressure gas that is compressed into the oil wells may cause low quality of produced oil. Therefore the project related low pressure gas cannot be utilized for lifting without further processing. During site visit the gas-lift gas system has been explained from the automation system and also confirmed with high pressure gas deliveries (ref 16). Gas lift requirements of the field are not met by project APG but are supplied through separate systems (central compressor facilities SKS-1 and KS-4) with gas from the neighbouring Guneshli May 28 field, as documented through project technical documentation and technical feasibilities (Ref-16 and 04). Project AGP is not mixed with gas-lift supply.
- (4) All recovered gas comes from oil wells that are in operation and are producing oil at the time of the recovery of the associated gas and gas-lift gas: project complies with the condition as validated through the technical layout of the project (Ref-15) as well as the production reports of the both sites from previous years (Ref-16) indicating prior operation as well as the source of the project APG.



(5) The applied methodology also states that the baseline scenario must conform with the following conditions:

- a) The continuation of the current practice of either venting or flaring of the associated gas and/or gas-lift gas: venting is the regular practice for the regarded facilities prior to project as indicated by the relevant permits (ref-21);
- b) The continued operation of the existing oil and gas infrastructure without processing of any recovered associated gas and/or gas-lift gas and without any other significant changes; and
- c) In the case where gas-lift is used under the project activity: the gas-lift gas under the baseline uses the same source as under the project activity and the same quantity as under the project activity: lift gas delivery reports from the 28 May Field (Ref-15), documenting the lift gas data supplied to the Neft Dashlari compared with the gas production values from Neft Dashlari (Ref-17) validate the fact that LP APG produced is insufficient by itself to satisfy the demand. Therefore the project does not affect the lift gas supply, which will continue in conditions identical to prior to the project.

Bureau Veritas Certification hereby confirms that the selected baseline and monitoring methodology AM0009 version 05 "Recovery and utilization of gas from oil wells that would otherwise be flared or vented", tools "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" (Version 02); "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" (Version 01); "Tool for the demonstration and assessment of additionality" (Version 05.2); "Tool to assess the validity of the original/current baseline and to update the baseline at the renewal of a crediting period" (Version 03) and other methodology component is previously approved by the CDM Executive Board, and is applicable to the Project, which, complies with all the applicability conditions therein.

3.8.2. Project Boundary (86-87)

The validation team has validated the project boundary by:

- (a) Assessing the relevant documents including project technical layout, schematics and feasibilities. The oil wells list has been presented to show that only low pressure associated gas from Neft Dashlari and Palchiq Pilpillasi has been considered for the project activity. (Eight offshore platforms and connected supplier platforms)(ref15)
- (b) Observing the physical site and equipment used in the process.

The spatial extent of the project boundary is clearly defined in line with AM0009 Version 05 as

- a) Neft Dashlari and Palchiq Pilpillasi oil fields: The project oil reservoir and oil wells where the associated gas and/or gas-lift gas is collected while only low pressure APG from the field is considered for project activity;
- b) 8 Collector platforms 1201, 1005a, 1517, 2192, 810, 2346, 1799, 741a and connected supplier platforms: The site where the associated gas and/or gas-lift gas was flared or vented in the absence of the project activity;
- c) 47 NQK-7/1-5 compressors installed at aforementioned 8 collector platforms, 19,977 m of ø 150-200 mm pipeline connecting the collectors to the KS-3 central compressor



facility and 6 10GCNAM 2/5-55 compressors installed at the KS-3 facility: The gas recovery, pre-treatment, transportation infrastructure, including where applicable compressors;

- d) Gas-lift distribution system;
- e) Metering devices and auxiliaries
 - i. Flow meters (metering devices).
 - ii. Remote Operations Controllers (ROC-107), Emerson (remote automation system);
 - iii. Differential Manometers DSS-712-M1 (metering and calculating device for determination of gas pressure)

The greenhouse gases and emission sources included in the project boundary are CO₂ emissions as a result of energy consumed by compressors.

Bureau Veritas Certification hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity. The validation team did not identify any emission sources that will be affected by the implementation of the proposed project activity and which are expected to contribute more than 1% of the overall expected average annual emissions reductions, and are not addressed by the selected approved methodology.

3.8.3.Baseline Identification (94-95)

The procedure contained in the methodology to identify the most reasonable baseline scenario has been correctly applied.

PP has considered the default plausible alternative baseline scenarios offered in the methodology for the associated gas and/or gas-lift from project oil wells; for the oil and gas infrastructure (existing and project) and for the use of gas-lift.

Regarding associated gas and/or gas-lift from project oil wells:

- **G1:** Release of the associated gas and/or gas-lift gas into the atmosphere at the oil production site (venting)

This scenario was found plausible by the PP as this is the continuation of current practice.

- **G2:** Flaring of the associated gas and/or gas-lift gas at the oil production site

Flaring of low pressure associated gas has never been applied at offshore platforms of SOCAR. Only onshore oil fields or facilities situated close to settlements are obliged to flare not-utilized gases. This alternative is rather not plausible as gas flaring would require additional investments in flaring facilities (Height of a standard flare is insufficient). Scenario was not found plausible since this would require further investment while venting is still an option. Rationale is found acceptable by the validation team.



- G3: either (i) transported to a gas pipeline directly, or (ii) compressed to CNG first, then transported by trailers/trucks/carriers and then decompressed and gasified again, before it finally enters the gas pipeline

On-site energy generation is supplied through separate central compressor facilities, namely SKS-1 and KS-4 using HP APG. Abundance of gas supply has been validated through gas production data and therefore it is found to be an acceptable rationale that project APG is redundant for energy production, leaving the scenario not plausible.

- G4: Injection of the associated gas and/or gas-lift gas into an oil or gas reservoir

Site has a gas-lift system utilizing available high pressure APG. As the LP APG must be further processed into HP to be able to be used for gas-lift and this creates additional costs while readily available gas-lift system is in place, this scenario is found to be implausible.

- **G5:** Proposed project without being registered as a CDM project activity;

Scenario represents Project scenario without being registered as a CDM activity hence it is plausible.

- G6: Recovery, transportation and utilization of the associated gas and/or gas-lift gas as feedstock for manufacturing of useful products.

Use of the LP APG for polyethylene production has been considered however as this would require treatment of the gas initially and construction of new pipelines for transport to the production plant the scenario is considered implausible due to cost considerations.

Alternative scenarios G1 and G5 have been found to be plausible for utilization of gas from oil wells.

Regarding oil and gas infrastructure (existing and proposed):

- P1: Construction of a processing plant for the purpose of processing the recovered gas, in the same way as in the project activity, without being registered as a CDM project activity

Garadagh Gas Processing Plant, ashore from project site, already has the means and capacity to process the Project APG therefore the construction of a new facility is not a plausible option.

- P2: Construction of a processing plant of a lower capacity than under the project activity, which processes only non-associated gas and no recovered gas

Utilization of the available processing facilities is viable as there are no investment alternatives more attractive cost-wise. Scenario has been found to be implausible.



- **P3:** Supplying recovered gas to an existing gas processing plant and constructing the necessary infrastructure, without being registered as a CDM project activity

Scenario represents the Project scenario without being registered as a CDM activity hence it is plausible.

- **P4:** Continuation of the operation of the existing oil and gas infrastructure without processing of any recovered associated gas and/or gas-lift gas and without any other significant changes

This is the situation prior to the Project implementation and hence is plausible.

- **P5:** Supplying recovered gas to a gas pipeline without prior processing and without being registered as a CDM project activity

Constitution and quality of the project APG requires pre-processing hence rendering this scenario implausible.

Alternative scenarios P3 and P4 have been found to be plausible for oil and gas infrastructure that is available and may be constructed.

Regarding the use of gas-lift:

- **O1:** Gas from the same source as under the project activity and in the same quantity as under the project activity, is used for the gas-lift system

High pressure gas from central compressor facilities SKS-1 and KS-4 is utilized for gas-lift practices and would continue to be so. Project Low Pressure APG and HP AGP serving the gas lift are not mixed. As this is the continuation of the activities prior to Project implementation and there are no indicated barriers to this practice, this scenario is deemed plausible.

- **O2:** Gas from a different source than under the project activity but using the same quantity of gas-lift gas as under the project activity, is used for the gas-lift system

Other than supplying outside gas, which is financially unfeasible, there are no other sources to be considered in the project for the gas-lift system hence the scenario is not plausible.

- **O3:** Gas from the same source as under the project activity but using a different quantity of gas-lift gas, is used for the gas-lift system

Gas-lift demands have been validated through reports and the alternative of air-lifting requires extensive modification of the existing facilities, beyond the project boundary too. Therefore this scenario is not viable.



- O4: Gas from a different source than under the project activity and in a different quantity than under the project activity, is used for the gas-lift system

As there are no feasible ways of supplying gas from a different source, this scenario is not plausible.

- O5: No gas-lift system is utilized

Oil production sites in the project boundary rely on this technology, hence the scenario is found to be implausible.

Alternative scenario O1 has been found to be plausible for the use of gas-lift.

According to these scenarios that have been found plausible (G1, G6, P3, P4, and O1). Utilizing these scenarios two baseline alternatives has been determined:

1. As a combination of G1, P4 and O1: Continuation of current practice of venting of the low-pressure associated gas at the oil production site (G1), operation of the existing oil and gas infrastructure without any other significant changes (P4), and use of gas from the same source and in the same quantity for the gas-lift system as under the project activity (O1).
2. As a combination of G5, P3 and O1: Recovery, transportation, processing of recovered gas in the existing gas processing plant and constructing the necessary infrastructure (G5 and P3), without registered as a CDM project activity, and use of gas from the same source and in the same quantity for the gas-lift system as in the baseline.

As the constituents of each combination have been validated for plausibility, both alternatives are deemed plausible. Alternative1 represents the continuation of the current situation and alternative 2 represents the proposed project activity without being registered as a CDM activity.

Alternative 1 is legally allowed as confirmed through the permits and is common practice for offshore oil production sites. This alternative is economically attractive as it would require no further investment such as the compressor and monitoring equipment investments and construction of additional collector pipeline.

Alternative 2 has no legal limitations and is less attractive economically without being registered as a CDM activity due to the obvious additional investment required and is not common practice in the region.

Validity of the statements have been confirmed through relevant project documentation such as infrastructure schematics, technical feasibilities, gas delivery reports, production forecasts, site visit observations as well as sectoral expertise.

After the plausible alternatives have been determined, the PP evaluated the economic attractiveness of these alternatives in line with the guidance of the applied methodology Section



II baseline methodology procedure step3, which is considered in detail in Section 3.9 additionality. Alternative 1 has been determined as the baseline scenario as a result of the evaluation of economic attractiveness of alternatives.

Bureau Veritas Certification hereby confirms that:

- (a) All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
- (b) All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;
- (c) Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
- (d) Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;
- (e) The approved baseline methodology has been correctly applied to identify the most plausible baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed project activity.

3.8.4. Algorithms and/or Formulae used to determine Emission Reductions (99-100)

The steps taken and the equations and parameters applied in the PDD to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected methodology including applicable tool(s).

The baseline emissions are according to AM0009 version 05 those that would occur from combustion of other fossil fuels at end-users in absence of the project activity. The AM0009 methodology provides for a simplified and conservative calculation of emission reductions, assuming that the use of recovered gas displaces the use of methane – the fossil fuel with the lowest direct CO₂ emissions.

Therefore the **baseline emissions** are calculated using the volume of total recovered gas, as follows.

$$BE_y = V_{F,y} \times NCV_{RG,F,y} \times EF_{CO_2, \text{Methane}}$$

Where:

BE_y = Baseline emissions during the period y, (tCO₂e)

$V_{F,y}$ = Volume of total recovered gas measured at exit of collector platforms, (F in Figure B.3.1 in PDD), after pre-processing and before the part of the recovered gas may be used on-site, during the period y, (Nm³)

$NCV_{RG,F,y}$ = Net calorific value of recovered gas measured at point F, exit of collector platforms, (F in Figure B.3.1 in PDD) during the period y, (TJ/Nm³)

$EF_{CO_2, \text{Methane}}$ = CO2 emission factor for methane (tCO₂/TJ)

Volume of total recovered gas data has been estimated in line with the implementation plan (operational compressors and sites as well as dates of commissioning), gas production forecasts and technical feasibilities for the sites (Ref-17 and 04). Estimations have been presented in an excel sheet clearly depicting all calculations, data and parameters used.

Net calorific value of recovered has been based on sample measurements and has been taken as 0.000036918 TJ/Nm³. CO₂ emission factor for methane has been assumed as 49.55 tCO₂/TJ, as given in the applied methodology AM0009 v.05.

Using these data the estimated baseline emissions over the first crediting period has been presented as

Estimated baseline emissions over the first crediting period 2013-2022				
Period	Volume of recovered gas, Nm³	Net calorific value, TJ/Nm³	CO₂ emission factor for CH₄, tCO₂/TJ	Baseline emissions, tCO₂
y	$V_{F,y}$	$NCV_{RG,F,y}$	$EF_{CO_2, \text{methane}}$	BE_y
2013	171,891,082	0.000036918	49.55	314,437
2014	163,984,093	0.000036918	49.55	299,973
2015	156,440,824	0.000036918	49.55	286,174
2016	149,244,546	0.000036918	49.55	273,010
2017	142,379,297	0.000036918	49.55	260,452
2018	135,829,850	0.000036918	49.55	248,471
2019	129,581,676	0.000036918	49.55	237,041
2020	123,620,919	0.000036918	49.55	226,137
2021	117,934,357	0.000036918	49.55	215,735
2022	112,509,377	0.000036918	49.55	205,811
Total 2013-2022	1,403,416,022	-		2,567,241

According to AM0009 version 05 the **project emissions** are calculated as follows:

Utilized tools are “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”, version 01 and “Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion”, version 02.

In accordance with the tools and the applied methodology:

$$PE_y = PE_{CO_2, \text{fossil fuels}, y} + PE_{CO_2, \text{elec}, y}$$

Where:



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PE_y	Project emissions in year y, (tCO ₂ e)
$PE_{CO_2, fossil fuels, y}$	CO ₂ emissions due to consumption of fossil fuels for the recovery, pre-treatment, transportation and, if applicable, compression of the recovered gas up to the point F in Figure 2 in PDD in the year y, (tCO ₂ e);
$PE_{CO_2, elec, y}$	CO ₂ emissions due to the use of electricity for pre-treatment and compression of the recovered gas up to the point of on-site use in the oil heaters and the power station in the year y, (tCO ₂ e).

10GCNAM compressors utilized for transportation of the recovered gas on-shore from the main compression platform KS-3 utilize LP APG, a fossil fuel. NQK-7/1-5 compressors on the collection platforms use electricity to transport the collected gas to the central compression platform KS-3, hence being the source of CO₂ emissions due to electricity.

For CO₂ emissions due to fossil fuel consumption:

$$PE_{CO_2, fossil fuels, y} = \sum_i FC_{i,j,y} \cdot COEF_{i,y}$$

Where:

$PE_{CO_2, fossil fuels, y}$	CO ₂ emissions due to consumption of fossil fuels for the compression and transportation in year y, (tCO ₂ e);
$FC_{i,j,y}$	Quantity of fuel type i combusted in process j in year y (Nm ³);
$COEF_{i,y}$	CO ₂ emission coefficient of fuel type i in year y (tCO ₂ /Nm ³) (calculated based on the chemical composition of the associated gas);
i	Fuel types combusted in process j in year y

CO₂ emission factor has been calculated in line with option A of the related tool. All calculations have been clearly depicted in a separate workbook. Amount of fossil fuel consumed has been based on the rate of consumption and has taken its data from the equipment specifications, also the source for validation (Ref-03).

CO ₂ emissions due to fossil fuel consumption 2013 - 2022			
Period y	Quantity of associated gas combusted, 1000Nm ³ $FC_{i,j,y}$	CO ₂ emission coefficient of fuel type i in year y, tCO ₂ /Nm ³ $COEF_{i,y}$	CO ₂ Emissions from fossil fuel combustion, tCO ₂ /y $PE_{fc,j,y}$
2013	12,891.83	0.00171	22,055
2014	12,298.81	0.00171	21,040
2015	11,733.06	0.00171	20,072
2016	11,193.34	0.00171	19,149
2017	10,678.45	0.00171	18,268
2018	10,187.24	0.00171	17,428
2019	9,718.63	0.00171	16,626
2020	9,271.57	0.00171	15,861
2021	8,845.08	0.00171	15,132
2022	8,438.20	0.00171	14,436



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Total 2013-2022	105,256.20	-	180,068
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For CO₂ emissions due to electricity consumption:

$$PE_{CO_2,elec,y} = \sum EC_{PJ,j,y} \cdot EF_{EL,j,y} \cdot (1 + TDL_{j,y})$$

Where:

$PE_{CO_2,elec,y}$	CO ₂ emissions due to the use of electricity for compression and transportation of the recovered gas up to the central compressor station in year y, (tCO ₂ e);
$EC_{PJ,j,y}$	Quantity of electricity consumed by the project electricity consumption source J in year y (MWh/yr);
$EF_{EL,j,y}$	Emission factor for electricity generation for source J in year y (tCO ₂ /MWh);
$TDL_{j,y}$	Average technical transmission and distribution losses for providing electricity to source J in year y
J	Sources of electricity consumption in the project

Once again the maximum consumption values indicated by the equipment technical specifications (Ref-03) have been used to calculate the estimated quantity of electricity consumed by the NQK-7/1-5 compressors conservatively. Estimated electricity needs for the project in 8 collector platforms have been calculated by the PP and depicted in table B.6.3.3. Total estimated annual electricity consumption is found to be 23.652,00 MWh/year

Consumed electricity for the compressors is provided by the gas turbine power plant on-site, which utilizes gas provided from platforms outside the project boundary. The plant is off-grid and operated for the energy requirements of the project site as well as neighboring sites. This case corresponds with scenario B of the *Tool to calculate baseline, project and/or leakage emissions from electricity consumption, version 01*. and the CO₂ emissions due to electricity consumption has been estimated as follows:

CO ₂ emissions due to electricity consumption 2013-2022			
Period	Quantity of electricity consumed by the project, MWh/y	CO ₂ emission factor for electricity generation, tCO ₂ /MWh	CO ₂ emissions from electricity consumption, tCO ₂ /y
y	$EC_{PJ,j,y}$	$EF_{EL,j,y}$	$PE_{EC,j,y}$
2013	23,652.00	0.85234	20,160
2014	23,652.00	0.85234	20,160
2015	23,652.00	0.85234	20,160
2016	23,652.00	0.85234	20,160
2017	23,652.00	0.85234	20,160
2018	23,652.00	0.85234	20,160
2019	23,652.00	0.85234	20,160
2020	23,652.00	0.85234	20,160
2021	23,652.00	0.85234	20,160
2022	23,652.00	0.85234	20,160
Total 2013-2022	236,520.00	-	201,600



Hence the total project emissions resulting from the CO₂ use in 10GCNAM compressors and electricity use by the NQK-7/1-5 compressors has been estimated as:

Project emissions over 2013-2022			
Period	CO₂ Emissions from fossil fuel combustion, tCO₂/y	CO₂ emissions from electricity consumption, tCO₂/y	Project emissions, tCO₂/y
y	$PE_{fc,j,y}$	$PE_{EC,j,y}$	PE_y
2013	22,055	20,160	42,214
2014	21,040	20,160	41,200
2015	20,072	20,160	40,232
2016	19,149	20,160	39,309
2017	18,268	20,160	38,428
2018	17,428	20,160	37,587
2019	16,626	20,160	36,786
2020	15,861	20,160	36,021
2021	15,132	20,160	35,291
2022	14,436	20,160	34,595
Total 2013-2022	180,068	201,595	381,664

As far as **leakage emissions** are concerned the project has no emissions to be considered since the proposed project does not involve the production CNG, parallel to the guidance of the applied methodology.

Greenhouse gas emission reductions achieved by the project has been calculated using:

$$ER_y = BE_y - PE_y - LE_y$$

Where:

ER_y Emission reductions in year y, tCO₂
 BE_y Baseline emissions in year y, in tCO₂
 PE_y Project emissions in year y, tCO₂

Parameter, Value	Source of information	Validation justification
EF CO ₂ Methane	AM0009 Version 5	EIA Default values
Annual operating hours (8760 hours/year)	Assumption for the electricity consumption	Total hours in a year accepted for the calculation of electricity consumption has been found conservative.
TDL j,y (0)	Tool to calculate baseline, project and/or	Accepted as zero for simplification regarding to the tool to calculate baseline, project and/or leakage



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	leakage emissions from electricity consumption. Ver.01	emissions from electricity consumption, version 01.
K (0,075)	Technical specification of compressor 10GCNAM2/5-55 installed at the central compressor station	The parameter has been found conservative since the value determined by dividing the maximum quantity of gas consumed by the compressor 10GCNAM2/5-55 per day by maximum quantity of gas transported by the compressor per day. The parameter will be used to determine the quantity of fuel combustion.
Pj (75 kw)	Technical specification of the compressor type NQK-7/1-5 installed	Input capacity of electricity consumption has been validated through the technical specification of compressors NQK-7/1-5 installed in the project site.

And were estimated to be:

Ex ante estimated emission reductions for the crediting period				
Year	Estimation of project activity emissions (tonnes of CO _{2e})	Estimation of baseline emissions (tonnes of CO _{2e})	Estimation of leakage (tonnes of CO _{2e})	Estimation of overall emission reductions (tonnes of CO _{2e})
2013	42,214	314,437	0	272,223
2014	41,200	299,973	0	258,773
2015	40,232	286,174	0	245,942
2016	39,309	273,010	0	233,701
2017	38,428	260,452	0	222,024
2018	37,587	248,471	0	210,883
2019	36,786	237,041	0	200,255
2020	36,021	226,137	0	190,116
2021	35,291	215,735	0	180,444
2022	34,595	205,811	0	171,216
Total (tonnes of CO_{2e})	381,664	2,567,241	0	2,185,577

The estimated annual average of emission reductions is approximately 218,558 tCO_{2e} over the 10 year crediting period of emission reduction represents a reasonable estimation using the assumptions given by the project activity. All the assumptions for this estimate either come from the assumptions used for investment analysis or technical specifications. The validation team confirms that the estimates of baseline emissions can be replicated using the information provided. It also can be verified using the spread sheet (ref-48) for calculations of CERs.

Bureau Veritas Certification hereby confirms that:

- (a) All assumptions and data used by the project participants are listed in the PDD, including their references and sources;

- (b) All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- (c) All values used in the PDD are considered reasonable in the context of the proposed project activity;
- (d) The baseline methodology and corresponding tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;
- (e) All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD.

3.9. Additionality (104)

As required by the selected methodology, the additionality of the Project has been demonstrated by applying "Tool for the demonstration and assessment of additionality", Version 5.02 and the applied methodology AM0009 v.05.

3.9.1. Prior consideration of the Clean Development Mechanism (112)

The timeline of the Project has been validated as in Table 3 below:

Table 3 Timeline of the Project

Date	Events	Reference
06/03/2007	Letter of Deputy Minister of Energy and Industry (Prior consideration)	Ref-21
02/04/2007	Construction and installation contract (Project start date)	Ref-19
04 – 10/2007	Preparation of PIN	
10/11/2007	SOCAR request for Letter of Endorsement from Ministry of Ecology and Natural Resources	Ref-21
04/02/2008	Letter of Endorsement by Ministry of Ecology and Natural Resources (Azeri DNA)	Ref-22
15/07/2008	Compressors on collector platform 2192 commissioned	Ref-20
04/2009	Negotiations with Gazprom Germania	PP'Ss statement
04 – 12/2009	PDD and baseline preparation	PP statement
05/2010 – 12/2012	Validation process	
28/11/2012	LoA from German DNA	Ref-2

From the table above, the validation team is able to verify that the project activity start date determined as 02/04/2007 in the PDD is appropriate and is the earliest of the dates at which



either the implementation or construction or real action of the Project began. This is in accordance with the latest CDM glossary.

It is a project activity with a start date before 2 August 2008, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation. The validation team has assessed Letter of Deputy Minister of Energy and Industry, dd.06/03/2007, #03-14-164 and confirms that the project participants had an awareness of the CDM prior to the project activity start date, and the benefits of the CDM were a decisive factor in the decision to proceed with the project. The validation team has also checked the Letter of Endorsement by the Azeri DNA and evidence of negotiations with Gazprom Germania and is able to verify that all documents are reliable and authentic. There is less than two years of a gap between the documented evidence. Therefore the project participants demonstrated that real and continuing actions were taken to secure CDM status for the project in parallel with its implementation.

Bureau Veritas Certification hereby confirms that the proposed project activity complies with the requirements related to the prior consideration of the CDM.

3.9.2.Identification of Alternatives (116)

The plausible and credible alternatives to the Project were identified as per applied Methodology AM0009 v.05.

- (1) Alternative 1: As a combination of scenarios G1, P4 and O1: Continuation of current practice of venting of the low-pressure associated gas at the oil production site (G1), operation of the existing oil and gas infrastructure without any other significant changes (P4), and use of gas from the same source and in the same quantity for the gas-lift system as under the project activity (O1).
- (2) Alternative 2: As a combination of G5, P3 and O1: Recovery, transportation, processing of recovered gas in the existing gas processing plant and constructing the necessary infrastructure (G5 and P3), without registered as a CDM project activity, and use of gas from the same source and in the same quantity for the gas-lift system as in the baseline.

Assessment of the alternatives has been further detailed in section 3.8.3 of this report.

Bureau Veritas Certification considers the listed alternatives to be credible and complete.

3.9.3.Investment Analysis (123)

Analysis method

Alternative 1 representing continuation of current practice is not evaluated specifically, as this option does not lead to any investment. Economic attractiveness of Alternative 2 (Proposed project activity without CDM) is analyzed in detail with evaluation of the determined indicators (IRR, NPV)

A benchmark analysis is applied and considered to be appropriate.



Benchmark

The validation team considers that the type of benchmark applied is suitable for the type of financial indicator presented; the risk premiums applied in determining the benchmark reflect the risks associated with the project activity; it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark.

Data source

The input values are taken from technical feasibility studies, which were compiled by State Oil Company of Azerbaijan Republic (Ref-04), equipment contracts (Ref-10), government resolutions. The validation team confirms that the values used in the PDD and associated annexes are consistent with the aforementioned sources.

The technical feasibilities was finalized in 2008 and 2009. Based on the conclusion of the FSRs, the PP decided to proceed with the Project on 02/04/2007 with the consideration of CDM revenues (Ref-19). Given this relative short period of time between the finalization of the FSR and the investment decision, it is unlikely in the context of the underlying project activity that the input values would have materially changed.

Input value

The validation team has reviewed the IRR and NPV calculation sheet and cross-checked the major input values using local knowledge as well as sectoral and financial expertise and confirms that:

Overall projected production of low pressure gas	The quantity of low pressure gas produced is directly linked to the oil production. With the oil production forecast associated gas production has been estimated has been validated. (REF.17)
Projected quantity of gas transported to the gas processing plant	A volume of gas has been used for the transportation to the GPP. After this volume has been excluded the quantity of gas transported to the GPP has been determined. The volume of gas has been used in the compressors has been verified through the technical specifications as 0,075. (Ref.14)
Agreed price for the delivery of recovered gas	Whole sale price has been validated through the official letter from Azneft dd. 17.03.2010. In 2008 the selling wholesale price for gas is validated as 35,59 AZN/1000m ³ .
Capital expenditure	Capital Expenditures have been validated through the technical feasibility and the contracts. (Ref04 and 10) The total cost for the capital expenditures has been verified as 24,164,225 euros.
Operational expenditure	OPEX are determined by multiplying the average gas production costs by the projected quantity of gas recovered per year. The average gas production cost has been validated through technical feasibility study order no. 10062, 10139, 10307. The period of the assessment is fifteen years. This period includes the costs of major maintenance and rehabilitation. The total value of the opex validated as 51,599,934 euro yearly.
NCV	NCV has been measured as 0.00003692 TJ/Nm ³ and this has been confirmed with the laboratory result on the gas sample. (Ref .49)



Revenues from the project operations	The expected revenues comprise both revenues from selling the recovered gas to GPP and savings from the reduced environmental payments (1.234 EUR/1000m3). The savings are calculated based on the recovered gas quantity and environmental fees payable for gas venting. Environmental payments has been verified through Resolution №122 of Cabinet of Ministers of Azerbaijan Republic (1992, adapted 2002) and recovered gas is verified through the oil production forecast.
Depreciation	the depreciation period for the NPQ compressors, gas pipelines and meters considered as 4 years according to the Azerbaijan taxation procedures and validated through the Azerbaijan taxation regime (ref-23).
Fiscal regime	Benchmark has been verified with the central bank interest rate at the time of investment decision and with the country risk premium rate from the report of New York University Leonard N. Stern School of Business .The total benchmark calculated as (12+3,6) 15,6%

Indicator Calculation

Based on the input values from the FSR that are valid and applicable at the time of investment decision, the project IRR of the Project without CDM revenues is 9.85, lower than the benchmark, which shows that the Project is not financially attractive in the absence of CDM benefits.

Regarding to the investment analysis done for the defined alternatives it is found that alternative 1 has no IRR and negative NPV (-1,097) but the second alternative which is doing the project activity without CER NPV calculated as -1,506 and IRR calculated as 9,85%. Regarding to the calculated benchmark it is clear that project is not feasible and the IRR is lower than the selected benchmark (15,6%).

The validation team has reviewed the IRR calculation spreadsheet (Ref-49) and confirms that the calculation and presentation are consistent with the "Guidelines on the assessment of investment analysis" version 05. The data sources as well as the analysis approach is reliable and in accordance with local accounting regulations or international best practice.

Sensitivity Analysis

Variables including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues were taken as uncertainty factors for sensitive analysis to determine under what conditions variations in the result would occur, and the likelihood of these condition:



- Natural gas price

With a negative variation on the scale of 20%, the IRR becomes 5.86% and with a positive variation of the same scale, the IRR becomes 13.47%, still staying below the determined benchmark.

- Environmental Payments

With a negative variation on the scale of 20%, the IRR becomes 9.60% and with a positive variation of the same scale, the IRR becomes 10.10%, still staying below the determined benchmark.

- Gas production costs

With a negative variation on the scale of 20%, the IRR becomes 14.68%, still staying below the determined benchmark, and with a positive variation of the same scale, the IRR becomes 4.33%.

- Investment costs

With a negative variation on the scale of 20%, the IRR becomes 13.77%, still staying below the determined benchmark, and with a positive variation of the same scale, the IRR becomes 6.68%.

The validation team considers that the range of variations is reasonable in the project context. The analysis provided a cross-check on the suitability of the assumptions used in the development of the investment analysis. The conclusion that the project activity is unlikely to be financially/economically attractive is robust to reasonable variations in the critical assumptions.

Bureau Veritas Certification hereby confirms that the underlying assumptions regarding investment analysis are appropriate and the financial calculations are correct.



3.9.4.Barrier Analysis (127)

Barrier Analysis is not performed for the project activity.

3.9.5.Common Practice Analysis (130)

The geographical boundary for the common practice analysis has been defined as Caspian Sea region which is post-soviet region. This has been found acceptable by the validation team because there are other offshore oil production platform is in the Caspian Sea.

In the region there is no limitation for the venting and flaring. This has been confirmed through the (ref.26. Wikipedia caspian sea – iran kazakistan vb.). In Azerbaijan there are 2 big companies who is extracting oil, BP and Socar. In the Sustainability report of BP dd.2008 it is stated that 761 kilo tonnes of hydrocarbon were flared. The only similar comparable project activity is Guneshli Oil Field however it is also under CDM development so the project did not considered in the common practice analysis.

Bureau Veritas Certification hereby confirms that the proposed CDM project activity is not common practice.

In conclusion, as demonstrated in accordance with approved baseline and monitoring methodology AM0009 version 05 “Recovery and utilization of gas from oil wells that would otherwise be flared or vented” and “Tool for the demonstration and assessment of additionality” (Version 05.2)., the proposed CDM project activity is additional.

3.10. Monitoring Plan (133)

The Project uses the approved consolidated monitoring methodology AM0009 Version 05.

Applicability of this methodology is justified in PDD in section B.2. Referring to the discussions on the applicability of the methodology in section 3.8.1 above, the validation team considers that the selected monitoring methodology is applicable to the Project.



Data and Parameters Monitored

The emission reductions will be calculated ex-post. Baseline emissions, project emissions and emission reductions will be calculated regarding to the monitored information during crediting period.

For the baseline emissions:

Monthly volumes of APG recovered at each of the project sites ($V_{F,y}$) will be monitored by gas flow meters and monthly net calorific value of the recovered APG for each of the project sites ($NCV_{RG,F,y}$) will be monitored by the gas quality certificates prepared by a competent laboratory.

For the project emissions:

Number of electricity consumption sources operational during the period y (**N**) will be monitored by onsite personnel and equipment logs as number of compressors NQK-7/1-5 in operation

Quantity of fuel type i (low pressure gas) combusted in process j (fuelling the compressors) during the year y ($FC_{i,j,y}$) will be monitored through the continuous measurement of recovered gas. Quantity of electricity consumed by the project electricity consumption source J (fuelling the NQK-compressors) in year y ($EC_{PJ,J,y}$) has been determined conservatively assuming maximum theoretical hours of annual operation i.e. 8760 and maximum compressor input capacity.

Weighted average mass fraction of carbon in fuel type i ("high" pressure gas) in year y ($w_{C,i,y}$) and Weighted average density of fuel type i ("high" pressure gas) in year y ($\rho_{i,y}$) has been determined through gas composition analysis results from a competent laboratory. CO₂ emission coefficient of fuel type i in year y ($COEF_{i,y}$) will be calculated using these data, every month.

Quantity of fossil fuel type i (high pressure gas) fired in the captive on-site Gas Turbine Power Plant (4 times 12MW installed capacity) in year y ($FC_{n,i,y}$) will be monitored through gas flow meters at the GTPP. In a similar manner the Quantity of electricity generated in captive on-site Gas Turbine Power Plant (4 times 12MW installed capacity) in year y ($EG_{n,y}$) will be monitored through the continuous measurement of on-site electricity meters. Also the Average net calorific value of fossil fuel type i used in the period y ($NCV_{i,t}$) will be measured through samples from the entry of the power plant, quarterly.

A detailed depiction of parameters to be monitored, methods and their interactions have been shown in the PDD Annex 4.

The validation team considers that the description of the monitoring plan contains all necessary parameters, that they are described and that the means of monitoring described in the plan complies with the requirements of the methodology including applicable tool(s).

Implementation of the Monitoring Plan

The operator shall appoint a technical manager, who will be responsible for data collection, preparation of monitoring reports and calculation of emission reductions. The responsible



technical manager will have the overall responsibility for preparation of the monitoring report, coordinating data collection from each of the project sites. The project operator will sign all official reports, GHG emission reduction protocols and worksheets. This will confirm that the official documentation is kept on record.

The technical manager will be responsible to check if the correct parameters are collected. Annual reports will be prepared to check the baseline emissions, project emissions and emission reductions. The data collected for the purpose of the project monitoring will be kept at least for 2 years after the end of the crediting period. The equipments will be operated regarding to the technical specifications and the calibrations will be done as stated in the national standards and the specifications.

Please refer to Table B.7.2.1 and Annex 4 in the PDD for detailed roles and responsibilities related to the project.

A monthly internal report will be prepared based on the excel worksheet by the responsible technical manager. These monthly reports will be used for quality assurance when compared with the annual data reported by each of the project sites.

The data collected for the purpose of the project monitoring shall be kept at least for 2 years after the end of the crediting period. Besides internal monthly reports the project operator will prepare periodic reports as needed for audits and verification purposes. The annual reports will include information on the overall project performance, baseline emissions, and emission reductions achieved, compliance of achievements with environmental and social targets, methods of calculation, relevant references to the data sources, description of internal monitoring procedures.

The validation team considers that the means of implementation of the monitoring plan, including the data management and assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by/resulting from the proposed project activity can be reported ex post and verified.

Bureau Veritas Certification hereby confirms that the monitoring plan complies with the requirements of the methodology including applicable tool(s), the monitoring arrangements described in the monitoring plan are feasible within the project design and the project participants are able to implement the described monitoring plan.

3.11. Environmental Impacts (137)

The project participants conducted an analysis of the environmental impacts of the proposed project activity, including transboundary impacts and an environmental impact assessment in accordance with procedures as required by the host Party.

The environmental impact assessment has been submitted to DOE and it is confirmed with the EIA checklist and EIA handbook that project activity has no negative impacts. There will be a construction for the project activity but it will be on the existing platform so there won't be a



negative effect. Also with recovering of the low pressure associated gas it will have positive impact on the environment.

Bureau Veritas Certification hereby confirms that the project participants have undertaken an analysis of environmental impacts and an environmental impact assessment in accordance with procedures as required by the host Party.

3.12. Local Stakeholder Consultation (140)

The project participants have completed a local stakeholder consultation process and that due steps were taken to engage stakeholders and solicit comments for the proposed project activity.

Local stakeholder consultation has been done on 26 November 2009 and the invitation has been done through the website and the local newspaper prior to the meeting. NGO's were also invited to the meeting. The invitation letter, minutes of the meeting and the attendance list has been provided to DOE. During site visit the stakeholder meeting has been confirmed with meeting the locals. The main questions was technical questions, no negative comment received for the project activity.

Bureau Veritas Certification hereby confirms that comments that are relevant for the proposed project activity have been invited from local stakeholders, the summary of the comments received as provided in the PDD is complete, the project participants have taken due account of all comments received and have described this process in the PDD.

4. COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

The PDD using approved baseline and monitoring methodology AM0009 version 04 "Recovery and utilization of gas from oil wells that would otherwise be flared or vented" was webhosted on the UNFCCC for global stakeholders comments as per CDM requirements. The project was webhosted from 11/06/2010 to 10/07/2010.

No comments were received during this period.



5. VALIDATION OPINION

Bureau Veritas Certification has performed a validation of the Capture and processing low pressure associated gas from the Neft Dashlari and Palchiq Pilpilassi oil fields of SOCAR, which is located in Neft Dashlari and Palchiq Pilpilassi offshore oilfields in the Absheron Peninsula Region of Baku, Azerbaijan. The validation was performed on the basis of UNFCCC criteria for the CDM, and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) desk review of the project design document and additional background documents; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final validation report and opinion.

The project correctly applies the approved consolidated baseline and monitoring methodology AM0009 Version 05 and uses the latest tool and guidelines for demonstration of the additionality.

By reducing venting of the low pressure associated gas at the Neft Dashlari and Palchiq Pilpilassi oil fields of the Oil and Gas Production Department (OGPD) Neft Dashlari of SOCAR and replacing other fuels for the end-user, the project is likely to result in reductions of GHG emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project 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 the project is implemented and maintained as designed, the project is likely to achieve the estimated annual emission reductions of 218,558 tCO₂e during the ten years of its fixed crediting period.

The review of the project design documentation and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and the relevant host country criteria. Bureau Veritas Certification thus requests registration of the project as a CDM project activity.

Mr. Robin WANG
Internal Technical Reviewer
26/12/2012

Mrs. Burcu MUTMAN
Team Leader
26/12/2012



6. REFERENCES

Category 1 Documents:

Documents provided by project participants that relate directly to the GHG components of the project.

- /1/ Azeri Ecology and Natural Resources Ministry, LoA, #4/2061-01-15, dd. 24/09/2010
- /2/ Umweltbundesamt/Duetsche Emissionshandelsstelle, LoA, # E.1.6-18410-0436, dd. 28/11/2012
- /3/ Compressor NQK Spec – NQK compressor specifications
Compressor GKNAM Speci – GKNAM compressor specifications
- /4/ Technical feasibility 10062 TEO, 10063 TEO, 10139, 810, 1517, 2182, 1005a, 1799, dd. 19/02/2010
- /5/ Technical_Specifications_Collector_Platforms
- /6/ <http://www2.emersonprocess.com/en-US/brands/FloBoss/gasflowcomputers/107/Pages/107.aspx>
- /7/ 20090408 Neft Dashlari Platforms detail
- /8/ attendance sheet of public meeting
- /9/ Technical specifications for monitoring equipment - avtomatika.pdf
- /10/ Contract16092008_Compressor_Price
- /11/ EIA report Neftdashlari – Baku 2009
- /12/ EIA checklist and EIA Handbook
- /13/ Calculation of lift gas demand – excel workbook
- /14/ 2007 and 2008 gas delivery reports – OGPD 28 May to OGPD Neft Dashlari
- /15/ Technical map of OGPD Neft Dashlari – hard copy.
- /16/ LP APG requirements w. oil and gas production tables. – hard copy
- /17/ Oil and gas production forecasts of OGPD Neft Dashlari – hard copy
- /18/ Status report dd. 19/07/2010 compressors and gas quantities – hard copy
- /19/ Construction contract for collector platform 2192 – hard copy
- /20/ Official letter on commissioning of compressors on collectors – hard copy
- /21/ Letter by Deputy Minister, dd.06/03/2007, #03-14-164
Letter by Ministry of Ecology and Natural Resources, dd.10/12/2007, #22/4HT-1021
- /22/ Letter of endorsement by Azeri DNA, dd.04/02/2008, #4/270-01
- /23/ http://en.wikipedia.org/wiki/Taxation_in_Azerbaijan
- /24/ Interest rates of the Central Bank of Azerbaijan -
http://www.cbar.az/infoblocks/corridor_percent
- /25/ http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html
- /26/ http://en.wikipedia.org/wiki/Caspian_Sea
- /27/ <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/EXTGGFR/0,,contentMDK:21457705~pagePK:64168445~piPK:64168309~theSitePK:578069,00.html>
- /28/ <http://www.oilandgaseurasia.com/articles/p/42/article/403/>
- /29/ <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/EXTGGFR/0,,contentMDK:20620350~menuPK:828276~pagePK:64168445~piPK:64168309~theSitePK:>



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/30/ <http://cdm.unfccc.int/Projects/projsearch.html>/31/ <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/EXTGGFR/0,,contentMDK:21457705~pagePK:64168445~piPK:64168309~theSitePK:578069,00,html>/32/ BP in Azerbaijan Sustainability Report 2008
(<http://www.bp.com/genericarticle.do?categoryId=9029687&contentId=7013491>)**Category 2 Documents:**

Background documents related to the design and/or methodologies employed in the design or other reference documents used for cross-check.

- /33/ UNFCCC Clean Development Mechanism Validation and Verification Manual, v.01.2
- /34/ UNFCCC AM0009 Version 05 – “Recovery and utilization of gas from oil wells that would otherwise be flared or vented”
- /35/ UNFCCC “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion” (Version 02)
- /36/ UNFCCC “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” (Version 01)
- /37/ UNFCCC “Tool for the demonstration and assessment of additionality” (Version 05.2)
- /38/ UNFCCC “Tool to assess the validity of the original/current baseline and to update the baseline at the renewal of a crediting period” (Version 03)
- /39/ PDD_SOCAR_ver. 1.01 FIN_31.05_kb.doc
- /40/ PDD_SOCAR_ver.1.02_04.10_valid.doc
- /41/ InvestmentAnalysis_7sites_CORRECT.xlsx, dd. 04/2010
Dashlari_EmissionCalc_7sites_CORRECT.xls, dd. 04/2010
- /42/ PDD_SOCAR_ver.1.03_12.11_valid.doc
- /43/ InvestmentAnalysis_8sites_Valid_Ver_1_03.xlsx
Dashlari_EmissionCalc_8sites_Valid_Ver_1_03.xls
- /44/ PDD_SOCAR_ver.1.04_23032011.docx
- /45/ InvestmentAnalysis_8sites_DB.xlsx dd. 23/03/2011
- /46/ PDD_SOCAR_ver.1.05_13042011.docx
- /47/ PDD SOCAR v1.08 10-07-2012.docx
- /48/ PDD SOCAR v1.09 final.docx , dd. 26/12/2012
- /49/ Dashlari_EmissionCalc_8sites_Valid_Ver_1_03.xls – final
InvestmentAnalysis_8sites_Valid_Ver_1_03.xlsx
- /50/ MoC SOCAR GPG.pdf – Modalities of communications.

Persons interviewed:

Persons interviewed during the validation or persons that contributed with other information that are not included in the documents listed above.

State Oil Company of Azerbaijan Republic

- /1/ Farzalyev Gafar – Azneft Production Unit
- /2/ Naib Huseyinov – Oil Production Manager



- /3/ Muhammed Kacayev – Ecology Department Manager
- /4/ Meherrem.Mehtiyev - Socar CDM Manager
GFA ENVEST GmbH
- /5/ Mrs. Ksenia Broockman
- /6/ Mr. Kapor Zoran
Local Stakeholder
- /7/ Fuad Axundzads – Local NGO - Environment and Life



7. CURRICULA VITAE OF THE DOE'S VALIDATION TEAM MEMBERS

Mrs. Burcu MUTMAN	Bureau Veritas Certification, Country	Team Leader, Climate Change Lead Verifier, Burcu Mutman is an environmental engineer and an auditor for environment, safety and quality management systems. She is also lead verifier for GHG Emission Reduction Projects.
Mr. Mustafa UNAL	Bureau Veritas Certification, Country	Team Member, Climate Change Verifier. Mustafa Unal is a Bsc in Materials Engineering and an auditor for environment (ISO 14001), safety (OHSAS 18001) and lead auditor for quality (ISO 9001) management systems. He has experience in automotive and civil aviation maintenance industries. He has participated in the validation and verification of many projects under GS and VCS and is a lead verifier.
Mr. Robin WANG	Bureau Veritas Certification, Country	Technical Reviewer, Climate Change Lead Verifier. He holds a Bachelor Degree in Gas & Heating Engineering. He was a Gas Engineer with over 10 years' experiences in oil & gas sector and building technologies in P.R. China. Before joining BV in 2007, he gained two years of CDM audit experience in P.R. China. He obtained the certificate of CDM Lead Verifier and Lead Auditor for ISO 14001. He has passed training course of ISO 14064.



APPENDIX A: CDM PROJECT VALIDATION PROTOCOL

Table 1 Validation requirements based on the Clean Development Mechanism Validation and Verification Manual (Version 01.1)







APPENDIX A: CDM PROJECT VALIDATION PROTOCOL

Table 1 Validation requirements based on the Clean Development Mechanism Validation and Verification Manual (Version 01.1)



VALIDATION REPORT

1. Approval			COUNTRY A (insert the country name) Azerbaijan	COUNTRY B (insert the country name) Germany		
a. Have all Parties involved approved the project activity?	VVM	44	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
b. Has the DNA of each Party indicated as being involved in the proposed CDM project activity in section A.3 of the PDD provided a written letter of approval? (If yes, provide the reference of the letter of approval, any supporting documentation, and specify if the letter was received from the project participant or directly from the DNA)	VVM	45	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
c. Does the letter of approval from DNA of each Party involved:	VVM	45	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
i. confirm that the Party is a Party of the Kyoto Protocol?	VVM	45.a	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK



VALIDATION REPORT

ii. confirm that participation is voluntary?	VVM	45.b	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
iii. confirm that, in the case of the host Party, the proposed CDM project activity contributes to the sustainable development of the country?	VVM	45.c	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
iv. Refers to the precise proposed CDM project activity title in the PDD being submitted for registration?	VVM	45.d	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from OK German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
d. Is(are) the letter(s) of approval unconditional with respect to (i) to (iv) above?	VVM	46	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK



VALIDATION REPORT

e. Has(ve) the letter(s) of approval been issued by the respective Party's designated national authority (DNA)?	VVM	47	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
f. If there is doubt with respect to (e) above, was verified with the DNA that the letter of approval is valid for the proposed CDM project activity under validation?	VVM	47	Party involved has not approved the project activity.	Party involved has not approved the project activity.	CAR1	OK
g. Is there doubt with respect to the authenticity of the letter of approval?	VVM	48	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
h. If yes, was verified with the DNA that the letter of approval is authentic?	VVM	48	Party involved has not approved the project activity.	Party involved has not approved the project activity. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK



VALIDATION REPORT

2. Participation			<i>PP1 (insert PP1 name)</i>	<i>PP2 (insert PP2 name)</i>		
a. Have all project participants been listed in a consistent manner in the project documentation?	VVM	51	Yes, Socar (State Oil Company of Azerbaijan) has been listed as project participant in the project documentation	Yes, Gazprom Germania GmbH has been listed as project participant in the project documentation.	OK	OK
b. Has the participation of the project participants in the project activity been approved by a Party to the Kyoto Protocol?	VVM	51	<i>The participation of the project participant has not been approved by a Party to the KP.</i>	<i>The participation of the project participant has not been approved by a Party to the KP. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436</i>	CAR1	OK
c. Are the project participants listed in tabular form in section A.3 of the PDD?	VVM	52	Yes, SOCAR has been listed in a tabular form in Table A.3 , Section A.3 of the PDD.	Yes, Gazprom has been listed in a tabular form in Table A.3 , Section A.3 of the PDD.	OK	OK
d. Is the information in section A.3 consistent with the contact details provided in annex 1 of the PDD?	VVM	52	Yes, in Annex 1 of the PDD the contact information of the SOCAR has been provided and it is consistent with Section A.3 of the PDD.	Yes, in Annex 1 of the PDD the contact information of the Gazprom has been provided and it is consistent with Section A.3 of the PDD.	OK	OK



VALIDATION REPORT

e. Has the participation of each of the project participants been approved by at least one Party involved, either in a letter of approval or in a separate letter specifically to approve participation? (Provide reference of the approval document for each of the project participants)	VVM	52	The participation is not approved from any of the parties that involved either in a letter of approval or in a separate letter specifically to approve participation.	The participation is not approved from any of the parties that involved either in a letter of approval or in a separate letter specifically to approve participation. A letter o approval has been provided to the DOE	CAR2	OK
f. Are any entities other than those approved as project participants included in these sections of the PDD?	VVM	52	There are no other entities from SOCAR and Gazprom included to the section A.3 and Annex 1 of the PDD. However the approval of the SOCAR and Gazprom are also missing. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436		CAR1	OK
g. Has the approval of participation issued from the relevant DNA?	VVM	53	The participation of the project participant has not been approved by a Party to the KP.	The participation of the project participant has not been approved by a Party to the KP. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK



VALIDATION REPORT

h. Is there doubt with respect to (g) above?	VVM	53	The participation of the project participant has not been approved by a Party to the KP.	The participation of the project participant has not been approved by a Party to the KP. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
i. If yes, was verified with the DNA that the approval of participation is valid for the proposed CDM project participant?	VVM	53	The participation of the project participant has not been approved by a Party to the KP.	The participation of the project participant has not been approved by a Party to the KP. LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436	CAR1	OK
3. Project desing document						
a. Is the PDD used as a basis for validation prepared in accordance with the latest template and guidance from the CDM Executive Board available on the UNFCCC CDM website?	VVM	55	The latest version of the PDD which is Version 3 dd 28 July 2006 has been used as the template of the PDD and it is prepared according to the latest guidance which is Version 7 dd. 02 August 2008.		OK	OK
b. Is the PDD in accordance with the applicable CDM requirements for completing the PDD?	VVM	56	Yes, the PDD is in accordance with the applicable CDM requirements for completing the PDD.		OK	OK
c. In CDM-PDD section A.1 are the following provided?	EB 41	Ann 12				



VALIDATION REPORT

i. Title of project	EB 41	Ann 12	The title of the project activity is "Capture and processing low pressure associated gas from the Neft Dashlari and Palchiq Pilpilassi oil fields of SOCAR"	OK	OK
ii. Current version number and date of document	EB 41	Ann 12	CDM PDD version: 1.01 Date: 30.10.2009 Please clarify the date of the document. The version number and date is corrected as 1.02 dd.04.10.2010	CL1	OK
d. In CDM-PDD section A.2 are following provided (max. one page)?	EB 41	Ann 12	Section A.2 is more than 1 page. Please amend. Section A.2 corrected as one page.	CAR3	OK



VALIDATION REPORT

<p>i. A brief description of the project activity covering purpose which includes the scenario existing prior to the start of project, present scenario and baseline scenario</p>	<p>EB 41</p>	<p>Ann 12</p>	<p>The purpose of the project activity has been defined as “to reduce venting of the low pressure associated gas at the Neft Dashlari and Palchiq Pilpilassi oil fields of the Oil and Gas Production Department (OGPD) Neft Dashlari of SOCAR”.</p> <p>The existing scenario has been defined as “The recovered low-pressure associated gas is vented directly at the collector platform in absence of the project activity” –</p> <p>Project Scenario is to recover low-pressure associated gas, which is currently vented.</p> <p>Baseline Scenario stated as same with the existing scenario in section A.2 of the PDD.</p> <p>The product of the processed associated gas and the end user should be described here.</p> <p>It is stated in A.4.3 that the pressure of the associated gas is (0.8-2 bar). 1bar=1.0197 at. Therefore, it is not consistent. Clarification is required.</p> <p>The term Liquefied gas was changed to ‘Liquefied Petroleum Gas,</p> <p>The term ‘unstable gasoline’ as used by SOCAR refers to Natural Gas Condensate. It is unstable, as the share of liquid may vary of time.</p> <p>The pressure of the associated gas is 0,8-2 bar, the figures provided in section A.2 have been corrected.</p>	<p>CL27 CL28</p>	<p>OK OK</p>
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VALIDATION REPORT

ii. Explanation on how the GHG emission reductions are effected	EB 41	Ann 12	<p>Regarding to the project scenario, the emission reductions will be achieved by recovering low-pressure associated gas which is vented in the existing situation. The emission in the existing scenario explained as “The mixture of crude oil, water and associated gas - is transported from oil wells to collector platforms. At these collector platforms recovered oil quantities are measured and low-pressure (0,8-2 bar) associated gas is separated from crude oil. The recovered low-pressure associated gas is vented directly at the collector platform in absence of the project activity. The remaining crude-oil emulsion is further transported to oil processing units (OPU) and central processing facilities (CPF) for further separation. At OPU and CPF crude-oil emulsion goes through several separation stages. At the separators the associated gas is collected. This associated petroleum gas has a pressure of 3,5-4 bar, which enables its transportation to the central hub. Each OPU and CPF is connected by gathering gas pipelines to the central hub of OGPD. Gas recovered at OPU and CPF is delivered to the central hub for its on-site utilization, whereas low-pressure gas is vented at collector platforms”</p>	OK	OK
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VALIDATION REPORT

iii. The PP's vies on the contribution of project activity to sustainable development	EB 41	Ann 12	The PP's views on the contribution of project activity to sustainable development has been listed as follows in the PDD, <ul style="list-style-type: none"> <i>The project avoids utilization of other fossil fuels and thus reduces the emissions also other than GHGs that would occur during the combustion of the same fossil fuels at end-users.</i> <i>In practice venting of APG causes larger emissions, than assumed under the applied baseline methodology, due to emissions of harmful gas methane.</i> <i>The project will create new jobs for operators of compressor facilities and measuring devices, and will contribute to the capacity building of SOCAR's personnel.</i> <i>The technologies and equipment to be employed by the project are manufactured by Azerbaijani engineering companies. Thus, the proposed project activity will strengthen Azerbaijani mechanical industry and foster development of applicable technical innovations.</i> 	OK	OK
e. In CDM-PDD section A.3 are following provided in the tabular format?	EB 41	Ann 12	The tabular format has been used in section A.3	OK	OK



VALIDATION REPORT

			<p>Please further confirm. If the party wished to be considered as PP, the contact information of the party should also be provided in Annex 1.</p> <p>Parties do not wish to be considered as PP. The clarification request is closed.</p>	CL29	OK
i. List of project participants and parties	EB 41	Ann 12	The project participants listed as SOCAR (State oil Company of Azerbaijan) and Gazprom GmbH and parties are listed as Azerbaijan (Host) and Germany.	OK	OK
ii. Identification of Host Party			Host Party is identified as Azerbaijan which is in line with KP.	OK	OK
iii. Indication whethre the Party wishes to be considered as project participant	EB 41	Ann 12	Both parties identified as wishes to be considered as project participants.	OK	OK
f. In CDM-PDD section A.4.1 are following provided?	EB 41	Ann 12			
i. Technical description, location, host party(ies) and address as required	EB 41	Ann 12	The project is located in Republic of Azerbaijan in Absheron Pensinsula at offshore platform in the Caspian Sea.	OK	OK
ii. Detailed physical location with unique identification of the project activity (eg. Longitude/latitude) – not to exceed one page	EB 41	Ann 12	<p>A detailed physical location of the project activity has been provided as collector platforms and connected supplier platforms. However it is seen that the table is not in line with the technical documentation seen during site visit. Technical feasibility covers 2192, 1517, 741a and 2346a. Please also provide the feasibilities for 1077, 1005 a , 1799, 810)</p> <p>CAR is closed as the information on PDD v.1.08 has been validated.</p>	CAR4	OK



VALIDATION REPORT

			<p>The exact coordinates of the eight platforms where the proposed project were carried out should be provided.</p> <p>This is not feasible due to the possibility of war conflict with Armenia the exact coordinates of the eight platforms are classified (the platforms could be selected as potential targets). The detailed map with the position of eight platforms has been provided to the validator during on-site visit.</p> <p>Expert approved of the answer</p>	CL30	OK
g. In CDM-PDD section A.4.2 is the list of categories of project activities provided?	EB 41	Ann 12	<p>Category of the project activity is given as follows in the PDD version 01.1 which is in line with the sectoral scopes related approved methodologies and DOE's. "Sectoral scope: 10 Fugitive emissions from fuels (solid, oil and gas)."</p>	OK	OK
			<p>Category of the project activity is not indicated. Sectoral scope is not the category.</p> <p>The category was indicated on page 6f. The corresponding category is: (10) Fugitive emissions from fuels"</p>	CAR ADDITI ONAL by LY	OK
h. In CDM-PDD section A.4.3 are following provided?	EB 41	Ann 12			
i. A description of how environmentally safe and sound technology, and know-how, is transferred to the Host Party(ies)	EB 41	Ann 12	<p>In PDD section A.4.3 it is stated that locally produced compressors has been used for the project activity.</p>	OK	OK



VALIDATION REPORT

ii. Explanation of purpose of project activity with scenario existing prior to the start of project, scope or present activities and the baseline scenario	EB 41	Ann 12	The existing scenario prior to the start of project is same with the baseline scenario which is venting of the associated gas and it is stated in section A.4.3 of the PDD.	OK	OK
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<p>iii. List and arrangement of the main manufacturing/production technologies, systems and equipments involved</p>	<p>EB 41</p>	<p>Ann 12</p>	<p>The main equipments installed to the project are listed as follows,</p> <ul style="list-style-type: none"> compressors for collecting and transportation of recovered low-pressure associated gas, gas collection pipeline system connecting eight collector platforms with the gathering gas pipeline, and Metering devices and auxiliaries. <p>Two different abbreviations are used for the compressor: NQK and NGK (refer to Section A.4.3. It is unclear if this is the compressor 10GCNAM/25/50 mentioned in PDD Section B.6.3</p> <p>Two types of compressors are used in the project:</p> <ul style="list-style-type: none"> NQK-7/1-5 (transportation of gas from platforms to the central hub of the oil and gas production department) 10GCNAM 2/5-55 (transportation of gas from the central hub to the on-shore gas processing plant) <p>Technical specifications of both compressor types were made available to the validator during the onsite visit. Required corrections in the project document are made.</p> <p>During site visit it is verified that the quantity of gas that used for gas-lift gas can be monitored (ROC). However same ROC system calculates also emissions from collector 2182. Please clearly explain 2182 will not be added to the monitoring plan since it was the pilot compressor and not in the project boundary.</p>	<p>OK</p> <p>CL2</p> <p>CAR5</p> <p>57</p>	<p>OK</p> <p>OK</p> <p>OK</p> <p>OK</p> <p>OK</p> <p>OK</p>
			<p>The compressors defined as NQK and NGK please correct them as its original.</p> <p>Please correct the compressor numbers and</p>		



VALIDATION REPORT

iv. The emissions sources and GHGs involved	EB 41	Ann 12	<p>The emission sources and GHG's involved are not stated in section A.4.3 of the PDD.</p> <p>In the PDD Section A.4.3 it is stated as following and accepted by the validation team. "In this case, according to the applied baseline methodology AM0009 version 04 emission sources include combustion of fossil fuels at end-users that are produced from non-associated gas or other fossil sources. The main source of emissions in the baseline is CO₂, while CH₄ and N₂O are neglected for conservancy reasons. According to the selected baseline methodology (described in detail in B.4.) the sources of GHG emissions include combustion of fossil fuels at end-users that are produced from non-associated gas or other fossil fuels." Please delete the repeated sentence above. Amended accordingly and closed.</p>	CL3	OK
i. In CDM-PDD section A.4.4 is the estimation of emission reductions provided as requested in a tabular format?	EB 41	Ann 12	<p>The starting date of the crediting period should be modified.</p> <p>The starting date of the crediting period has been updated as 01/01/2012 or the registration date whichever is later.</p> <p>Yes, in section A.4.4 the estimation of emission reductions provided in a tabular format.</p>	CL35	OK



VALIDATION REPORT

j. In CDM-PDD section A.4.5 is Information regarding Public funding provided?	EB 41	Ann 12	In section A.4.5 it is stated that no public funding involved to the project. The project will be financed by the project participants listed in Annex.1.	OK	OK
k. In CDM-PDD section B.1 are following provided?	EB 41	Ann 12			
i. The approved methodology and version number	EB 41	Ann 12	The approved methodology AM0009 Version 4 “Recovery and utilization of gas from oil wells that would otherwise be flared or vented” has been in the project activity and it is stated in section B.1 of the PDD.	OK	OK
ii. Any methodologies or tools which the above approved methodology draws upon and their version number	EB 41	Ann 12	<p>The tools that referred by the approved methodology has been listed however it is not clear if the following tool is draw upon for the project activity.</p> <p>- “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 2.2) ;</p> <p>2/ “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion project emissions from flaring gases containing methane” is erroneously identified as Version 2 though it is Version 02.</p> <p>3/ “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” is erroneously identified as Version 1 though it is Version 01.</p> <p>The missing references are included without flaws.</p> <p><u>CAR is closed based on due additions made to PDD.</u></p>	CL4	OK



VALIDATION REPORT

I. In CDM-PDD section B.2 are following provided?	EB 41	Ann 12			
i. Justification of the choice of methodology that the project activity meets each of the applicability conditions	EB 41	Ann 12	<p>The choice of the methodology justified by showing that project activity meets the applicability conditions.</p> <p>Except for the following optional condition: flaring of the associated gas and/or lift-gas under the baseline scenario.</p> <p>The applicability condition of AM0009 “the recovered gas is consumed on-site to meet energy demands under the project scenario” is not considered in PDD though it is applicable to the project activity.</p> <p>In the PDD it is stated that</p> <ul style="list-style-type: none"> - The recovered low pressure associated gas will be compressed and transported to the gas processing without prior processing. - The project will not effect the production of oil - no other gas will be injected to the oil wells except oil production purposes. - All associated gas will come from the oil production in Neft Dashları and Palchic Pilpilassi oil fields. <p>Due additions to the PDD are made on page 10.</p> <p><u>CAR is closed based on due additions made to PDD.</u></p>	CAR6	OK
ii. Documentations with references that had been used. This can be provided in Annex 3 instead	EB 41	Ann 12	<p>No reference has been identified to justify the applicability conditions of the methodology.</p>	CL5	OK



VALIDATION REPORT

m. In CDM-PDD section B.3 are following provided?	EB 41	Ann 12	The needed references has been indicated in the PDD however related section for transportation of gas without prior processing is not indicated in the provided feasibility for the applicability condition. <u>Review3</u> <u>There is no prior processing regarding to the feasibility. The clarification request is closed.</u>		
i. Description of all sources and gases included in the project boundary in the table	EB 41	Ann 12	In Table B.3.2 all sources and gasses included in the project boundary identified. These sources and gasses are as follows: Project: CO2 - Energy use for the Recovery - compression of the recovered gas. Baseline: CO2 - Combustion of fossil fuels at end-users that are produced from non associated gas or other fossil sources.	OK	OK
ii. A flow diagram of the project boundary physically delineating the project activity	EB 41	Ann 12	A flow diagram has been presented in section B.3. In the PDD only points F and C are shown in the diagram, please also show point A for the monitoring of project emissions as per the methodology. The explanation found acceptable, the monitoring points indicated with F for baseline emissions and C for project emissions. <u>The clarification request is closed.</u>	CL6	OK
iii. The flow diagram with all equipments, systems and flows of mass and energy etc	EB 41	Ann 12	The flow diagram covers all equipments and systems.	OK	OK



VALIDATION REPORT

n. In CDM-PDD section B.4 are following provided?	EB 41	Ann 12			
i. Explanation how the most plausible baseline scenario is identified in accordance with the selected baseline methodology	EB 41	Ann 12	<p>Yes, all plausible alternative scenarios under AM0009 for all the indicated components from three clusters G, P, and O are listed. Refer to Step 1. However G7 and O3 should be corrected since it is not relevant. Please include the schematic diagrams of the identified alternatives in the CDM PDD.</p> <p>The needed corrections have been done alternatives G7 and O3. The correction has been accepted.</p> <p>In the methodology Step-1 it is stated that, Realistic combinations of these three components should be identified and considered as possible alternative scenarios to the proposed project activity. The identified combinations should be transparently described and be illustrated in schematic diagrams in the CDM-PDD.</p> <p><u>Review3</u> The schematic illustration of the project activity has been referred. <u>The corrective action request is closed.</u></p>	CAR8	OK



VALIDATION REPORT

ii. Justification of key assumptions and rationales	EB 41	Ann 12	<p>Justifications and rationales are added to identify the most plausible scenarios. Ref. to 3.n.i</p> <p>The needed corrections have been done alternatives G7 and O3. The correction has been accepted.</p> <p>In the methodology Step-1 it is stated that, Realistic combinations of these three components should be identified and considered as possible alternative scenarios to the proposed project activity. The identified combinations should be transparently described and be illustrated in schematic diagrams in the CDM-PDD.</p> <p><u>Review3</u></p> <p>The schematic illustration of the project activity has been referred. <u>The corrective action request is closed.</u></p>	CAR8	OK
iii. Transparent illustration of all data used to determine the baseline scenario (variables, parameters, data sources, etc.)	EB 41	Ann 12	Yes, transparent illustration of all data used to determine the baseline scenario.	OK	OK
iv. A transparent and detailed description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed project activity	EB 41	Ann 12	Yes, all realistic combinations of the components from the three clusters are identified and considered as possible alternatives to the proposed project activity (2 components from cluster G, 2 from cluster P. and 1 cluster from O). They are listed in Table B.4.1. These combinations were further combined and formed two baseline Alternatives: 1 - "continuation of the current practice" and 2 - "the project activity without being registered as CDM project". Refer to Step 1.	OK	OK

VALIDATION REPORT



o. In CDM-PDD section B.5 are following provided?	EB 41	Ann 12			
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VALIDATION REPORT

i. Explanation of how and why this project activity is additional and therefore not the baseline scenario in accordance with the selected baseline methodology	EB 41	Ann 12	<p>The project proponent followed ACM0009 to demonstrate the additionality. Please provide objective evidences for the input values that used in the IRR calculations. (financial feasibility ?)</p> <p><u>Review2</u> Input values have been checked from the feasibility that provided with the updated version of PDD. Please also clarify, * 2192 and 2346 are stated in both feasibilities (10139-10062) and the tables in the investment analysis. Please clarify. They should not be same values for different 2 input values.</p> <p><u>Review3</u> The clarification found acceptable.</p> <p><u>Review2</u> * Please provide evidence that the letter from the Azneft for the prices are from the investment decision date.</p> <p><u>Review3</u> The clarification request is closed.</p> <p><u>Review2</u> *For costs of gas quantity analysis it is defined in the Azneft that 300-330 manat but it is stated as 330 manat in the investment analysis. Please clarify if it is line with the conservativeness principle.</p> <p><u>Review3</u> The clarification request is closed.</p> <p><u>Review2</u> *Please clarify if the expected collecting volume of gas is used from the feasibility for the investment analysis.</p> <p><u>Review3</u> The clarification request is closed.</p> <p>1/ The exchange rate of AZN in Euro is not provided what does not allow a reader to check the calculation results. 2/ The spreadsheets indicates operational revenues for 2008 and 2009 though the values of the recovered gas in these years are not provided. This does not allow a reader to reproduce the analysis and obtain the same results.</p>	CL17	OK OK OK
			<p>3/ Sensitivity analysis does not include variations of the investment cost and electricity tariff.</p> <p>4/ The investment analysis appears to have been implemented</p>	CAR9	



VALIDATION REPORT

ii. Justification of key assumptions and rationales	EB 41	Ann 12	Ref. 3.o.i		
iii. Transparent illustration of all data used to determine the baseline scenario (variables, parameters, data sources etc)	EB 41	Ann 12	Yes, transparent illustration of all data used to determine the baseline scenario.	OK	OK
iv. Evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity, if the starting date of the project activity is before the date of validation	EB 41	Ann 12	The starting date of the project activity is defined as 02 April 2007 which is the construction contract for collector platform 2192. The project operation date defined as 15.07.2008 and this has been verified through official letter on commissioning of compressors at the collector platforms. Since the project start date is before the web hosting the prior consideration has been verified through the letter from ministry which states CDM is the major condition to develop the projects and the document dd. 06 March 2007.	OK	OK
p. In CDM-PDD section B.6.1 are following provided?	EB 41	Ann 12			



VALIDATION REPORT

i. Explanation as to how the procedures, in the approved methodology to calculate project emissions, baseline emissions, leakage emissions and emission reductions are applied to the proposed project activity	EB 41	Ann 12	Yes, in the PDD it is stated how the approved methodology is applied to calculate project emissions, leakage and emission reductions in section B.6.1 of the PDD. the project emissions from the combustion of fossil fuel are calculated applying the latest approved version 02 of the "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" [4]. Refer to Formula (6) in PDD Section B.6.1. No leakage emissions are considered in line with AM0009. Please refer to the same Formula (5) in PDD Section B.6.1	OK	OK
ii. Equations used in calculating emission reductions	EB 41	Ann 12	All equations used in calculating emission reductions has been defined in the PDD. Formula 1-2-4-5 are in line with the methodology.	OK	OK
iii. Explanation and justification for all relevant methodological choices, including different scenarios or cases, options and default values	EB 41	Ann 12	Explanation and justification for all relevant methodological choices and default values (49,55 tCO2/TJ – for EF methane) has been identified in the PDD.	OK	OK
q. In CDM-PDD section B.6.2 are following provided?	EB 41	Ann 12			



VALIDATION REPORT

i. A compilation of information on the data and parameters that are not monitored throughout the crediting period but that are determined only once and thus remains fixed throughout the crediting period AND that are available when validation is undertaken	EB 41	Ann 12	<p>The emission factor for methane defined as 49,55 regarding to the methodology has been used and it is listed in Section B.6.2 of the PDD and not monitored parameter.</p> <p>TDI, k, Pj has been defined in section B.6.2 please clarify the reference tools for the parameter</p> <p>The explanation about TDL is appropriate. For finding Tx please refer to CAR7. <u>The clarification request is closed.</u></p>	OK	OK
ii. The actual value period	EB 41	Ann 12	<p>Value applied has been identified for all parameters that listed in section B.6.2.</p>	OK	OK
iii. Explanation and justification for the choice of the source of data	EB 41	Ann 12	<p>The source data has been identified but please also include the reference tool in accordance with the methodology.</p> <p>The reference tools for the monitoring parameters have been included. <u>The clarification request is closed.</u></p>	CL8	OK
iv. Clear and transparent references or additional documentation in Annex 3	EB 41	Ann 12	<p>There is no additional documentation in annex 3</p>	OK	
v. Where values have been measured, a description of the measurement methods and procedures (e.g. which standards have been used), indicated the responsible person/entity having undertaken the measurement, the date of measurement(s) and the measurement results	EB 41	Ann 12	<p>The reference documentation for the assumptions that listed in B.6.2 is not submitted. (tx)</p> <p>For finding Tx please refer to CAR7. <u>The clarification request is closed.</u></p>	CL9	OK
r. In CDM-PDD section B.6.3 are following provided?	EB 41	Ann 12			



VALIDATION REPORT

i. A transparent <i>ex ante</i> calculation of project emissions, baseline emissions (or, where applicable, direct calculation of emission reductions) and leakage emissions expected during the crediting period, applying all relevant equations provided in the approved methodology	EB 41	Ann 12	The transparent calculation according to the approved methodology has been given in section B.6.3. of the PDD.	OK	OK
ii. Documentation how each equation is applied, in a manner that enables the reader to reproduce the calculation	EB 41	Ann 12	<p>All relevant methodological choices/scenarios are explained under section B.6.1 of the PDD version 01.1. The formulas that will be used in the calculations are also given in detail under this section.</p> <p>For the calculation of Project CO₂ emissions from fossil fuel combustion, please also include how COEF_{i,y} will be calculated and include the related formula for COEF_{i,y}.</p> <p>For the calculation of the project CO₂ emissions due to electricity consumption, please clearly identify which scenario applies to project activity, please clearly identify how the formula used is selected as the tool suggests different formulas for various scenarios. Please also explain how the emission factor for electricity is determined according to the tool.</p> <p>The explanation about the applying of the equations found acceptable. <u>The clarification request is closed.</u></p>	CL18	OK



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iii. Additional background information and or data in Annex 3, including relevant electronic files (i.e. spreadsheets)	EB 41	Ann 12	There is no an additional file in Annex 3 or spreadsheets. The needed information for baseline calculation has been provided. The clarification request is closed.	CL10	OK
s. In CDM-PDD section B.6.4 are the results of the <i>ex ante</i> estimation of emission reductions for all years of the crediting period, provided in a tabular format?	EB 41	Ann 12	Yes, the calculations has been provided in a tabular format in section B.6.4	OK	OK
t. In CDM-PDD section B.7.1 are following provided?	EB 41	Ann 12			



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i. Specific information on how the data and parameters that need to be monitored would actually be collected during monitoring for the project activity	EB 41	Ann 12	<p>Please refer to the full list of “data and parameters monitored” in PDD Section B.7.1 which includes the two parameters specifically indicated in AM0009. Please refer to parameters 6 and 7 in PDD Section B.7.1.</p> <p>The list of “data and parameters monitored” in PDD Section B.7.1 includes data and parameters (numbers 1-5) that are not monitored throughout the crediting period but that are determined only once and thus remain fixed throughout the crediting period AND that are available when validation is undertaken. They should be listed in section B.6.2. T has been identified as the monitoring parameter however it is not defined in the equations in the PDD. Also this parameter is not defined in the approved methodology.</p> <p>Review3</p> <p>The clarification found acceptable. The corrective action request is closed.</p>	CAR7	OK
ii. For each parameter the following below information, using the table provided:	EB 41	Ann 12			

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<p>b. Where data or parameters are supposed to be measured, specify the measurement methods and procedures, including a specification which accepted industry standards or national or international standards will be applied, which measurement equipment is used, how the measurement is undertaken, which calibration procedures are applied, what is the accuracy of the measurement method, who is the responsible person/entity that should undertake the measurements and what is the measurement interval; (i) A description of the QA/QC procedures (if any) that should be applied; (ii) Where relevant: any further comment. Provide any relevant further background documentation in Annex 4.</p>	EB 41	Ann 12	<p>During site visit it is stated that NQK 7/1-5 is the only compressor that used however in the PDD 2 types of compressors identified. (NQK 10/2 5-12 and NQK 7/1-5) Please clarify.</p> <p>2 Flow Meters has been identified in the project site and it is verified during site visit (Emerson ROC – 107 /Foboss 407 and DSS 712) Please give the technical descriptions in the PDD and state the places that they are used in the project.</p> <p>Details of the compressors and the pipeline are provided in Section A.4.3, page 7. Further details of the pipeline are given in the Table A.4.3.2.</p> <p>Ad 1.</p> <ul style="list-style-type: none"> ▪ NQK: The lifetime, load factor and efficiency were included in the description of the NQK compressor, page 7. ▪ 10GCNAM: The lifetime, efficiency and load factor of 10GCNAM compressors were included in the description of 10GCNAM, page 9. <p>Ad 2. A graph indicating the location of the Flo Boss metering devices was included (Figure A4.3.2, page 10).</p> <p>Ad 3. A description of project- and baseline emissions sources and GHGs involved was included in Section A4.3, page 12.</p> <p>Expert's comment The response is accepted. The clarification request is closed.</p>	CL31	OK
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VALIDATION REPORT

u. In CDM-PDD section B.7.2 are following provided?	EB 41	Ann 12			
i. A detailed description of the monitoring plan	EB 41	Ann 12	A detailed description of the monitoring plan has been given as responsibilities, data handling and reporting.	OK	OK
ii. The operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects generated by the project activity	EB 41	Ann 12	Yes, operational structure has been clearly given.	OK	OK
iii. The responsibilities for and institutional arrangements for data collection and archiving	EB 41	Ann 12	The monitoring parameters will be archived for 2 years and the responsibilities identified for operational staff both at the project site and gas turbine power plant, Technical specialist for Neft Dashlari, Technical Managert for Socar. Gas Analysis specialist by Socar,	OK	OK
iv. Indication that the monitoring plan reflect good monitoring practice appropriate to the type of project activity	EB 41	Ann 12	Yes, the monitoring plan reflect good monitoring practice.	OK	OK
v. Relevant further background information in Annex 4	EB 41	Ann 12	Yes, further information has been given in Annex 4.	OK	OK
v. In CDM-PDD section B.8 are following provided?	EB 41	Ann 12			
i. Date of completion of the application of the methodology to the project activity study in DD/MM/YYYY	EB 41	Ann 12	Yes, the date has been given as 30 October 2009.	OK	OK
ii. Contact information of the person(s)/entity(ies) responsible for the application of the baseline and monitoring methodology to the project activity	EB 41	Ann 12	Yes, the contact information for Ksenia Broockmann who prepared the baseline and monitoring methodology has been given.	OK	OK



VALIDATION REPORT

iii. Indication if the person/entity is also a project participant listed in Annex 1	EB 41	Ann 12	There is no identification if the person / entity is also project participant in Annex 1. It is stated that Gazprom is also a project participant of the project activity. <u>The clarification request is closed.</u>	CL11	OK
w. In CDM-PDD section C.1.1 are following provided?	EB 41	Ann 12			
i. The starting date of a CDM project activity, which is the earliest of the date(s) on which the implementation or construction or real action of a project activity begins/has begun (EB33, Para 76/CDM Glossary of terms/EB41, Para 67)	EB 41	Ann 12	The project start date has been given as 2nd april 2007 which is the construction agreement for collector 2192.	OK	OK
ii. A description of how this start date has been determined, and a description of the evidence available to support this start date	EB 41	Ann 12	In section C.1.1 it is not stated how the start date has been determined and description of evidence The start date of the project activity defined as the date when the contract signed for construction and installation. <u>The clarification request is closed.</u>	CL12	OK



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iii. If this starting date is earlier than the date of publication of the CDM-PDD for global stakeholder consultation by a DOE, description in Section B.5 contain a of how the benefits of the CDM were seriously considered prior to the starting date (EB41, Para 68).	EB 41	Ann 12	The start date of the project is earlier than the global stakeholder consultation. The prior consideration has been identified with the letter from the ministry which indicates “The Ministry of Industry and Energy and the State Oil Company of Azerbaijan Republic (SOCAR) have developed and started implementation of activities focused on recovery of vented associated gas at these production units and delivery of this gas to the central gas distribution system. One of the major conditions for implementation of these projects is attraction of additional financing through the Clean Development Mechanism.”	OK	OK
x. In CDM-PDD section C.1.2 is the expected operational lifetime of the project activity in years and months provided?	EB 41	Ann 12	The operational lifetime of the proposed project activity is given as 15 years or 180 months.	OK	OK
y. In CDM-PDD section C.2 is it stated whether the project activity will use a renewable or a fixed crediting period and is C.2.1 or C.2.2 completed accordingly?	EB 41	Ann 12	Yes, it is stated that fixed crediting period has been chosen. Section C.2.2. has been filled.	OK	OK
z. In CDM-PDD section C.2.1 is it indicated that each crediting period shall be at most 7 years and may be renewed at most two times, provided that, for each renewal, a designated operational entity determines and informs the Executive Board that the original project baseline is still valid or has been updated taking account of new data where applicable?	EB 41	Ann 12	n.a.	OK	OK
aa. In CDM-PDD section C.2.1.1 are dates in the following format: (DD/MM/YYYY) provided?	EB 41	Ann 12	n.a.	OK	OK



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bb. In CDM-PDD section C.2.1.2 is the length of the first crediting period in years and months provided?	EB 41	Ann 12	n.a.	OK	OK
cc. In CDM-PDD section C.2.2 is the fixed crediting period at most ten (10) years provided?	EB 41	Ann 12	At most 10 years is not stated in the PDD in section C.2.2 The needed correction has been done in section C.2.2.2. <u>The clarification request is closed.</u>	CL14	OK
dd. In CDM-PDD section C.2.2.1 are the dates provided in the following format: (DD/MM/YYYY)?	EB 41	Ann 12	1 March 2010 has been defined. Please provide the date in DD/MM/YYYY according to the guidelines. The format of the date has been corrected as 01/03/2010. <u>The clarification request is closed.</u>	CL13	OK
ee. In CDM-PDD section C.2.2.2 is the length of the crediting period in years and months Provided?	EB 41	Ann 12	Yes, ten years (120 months) has been provided.	OK	OK
ff. In CDM-PDD section D.2 are the conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the Host Party, if environmental impacts are considered significant by the project participants or the Host, provided?	EB 41	Ann 12	Regarding to the EIA and the checklist that has been done by the pp it is concluded that the project has no negative environmental impacts. The environmental impact assessment and EIA checklist made available to DOE during site visit.	OK	OK
gg. In CDM-PDD section E.1 are the following provided?	EB 41	Ann 12			



VALIDATION REPORT

i. The process by which comments by local stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted.	EB 41	Ann 12	A stakeholder consultation meeting was held on 26/11/2009. Under section E.1 of the PDD Table E.1 is given to show the attendees of the stakeholder consultation meeting. From the given list it is seen that a broad variation of stakeholders have been invited to the stakeholder consultation meeting. During site visit a meet with tan attendee from the stakeholder consultation has been done by DOE. (Fuad Axundzads – Nature and Life (NGO)) Also signed attendee list for the stakeholder consultation has been seen during site visit.	OK	OK
ii. The project activity is described in a manner, which allows the local stakeholders to understand the project activity, taking into account confidentiality provisions of the CDM modalities and procedures.	EB 41	Ann 12	Please provide the description that used in the meeting. Amended shortly as a general description is included. Additionally the presentation used in the meeting is made available to the validator. The presentation was sent to BV with the corrected PDD on 4.10.2010, attached repeatedly to this protocol. The presentation has been submitted. <u>The clarification request is closed.</u>	CL15	OK
iii. The local stakeholder process has been completed before submitting the proposed project activity to the DOE for validation.	EB 41	Ann 12	Yes, local stakeholder consultation has been completed before submission of the PDD to DOE.	OK	OK
hh. In CDM-PDD section E.2 are following provided?	EB 41	Ann 12			



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i. Identification of local stakeholders that have made comments	EB 41	Ann 12	Yes, stakeholders that have made comments has been identified.	OK	OK
ii. A summary of this comments.	EB 41	Ann 12	Yes, a summary of the comments has been provided.	OK	OK
ii. In CDM-PDD section E.3 is the explanation of how due account have been taken of comments received from local stakeholders provided?	EB 41	Ann 12	Yes, it is explained that none of the comments received requires specific actions.	OK	OK
jj. In CDM-PDD Annex 1 are the following provided?	EB 41	Ann 12			
i. Contact information of project participants	EB 41	Ann 12	Yes, contact information of the project participants has been provided.	OK	OK
ii. For each organisation listed in section A.3 the following mandatory fields: Organization, Name of contact person, Street, City, Postfix/ZIP, Country, Telephone and Fax or e-mail	EB 41	Ann 12	Yes, all the mandatory fields has been filled both for Socar and Gazprom.	OK	OK
kk. In CDM-PDD Annex 2 is information from Parties included in Annex I on sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties provided?	EB 41	Ann 12	It is stated that there is no public funding for the project activity.	OK	OK
ll. In CDM-PDD Annex 3 is the background information used in the application of the baseline methodology provided?	EB 41	Ann 12	No background information has been provided in Annex.3.	OK	OK
mm. In CDM-PDD Annex 4 is the background information used in the application of the monitoring methodology provided?	EB 41	Ann 12	Yes, the background information has been provided for the monitoring.	OK	OK
4. Project description					



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a. Does the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation?	VVM	58	Yes, the PDD contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity.	OK	OK
b. Is the description of the proposed CDM project activity as contained in the PDD:	VVM	59			
i. sufficiently covering all relevant elements?	VVM	59	Yes, the PDD sufficiently covers all relevant elements.	OK	OK
ii. accurate?	VVM	59	Yes, the PDD is accurate.	OK	OK
iii. providing the reader with a clear understanding of the nature of the proposed CDM project activity?	VVM	59	Yes, the PDD provides reader a clear understanding.	OK	OK
c. Is the proposed CDM project activity in existing facilities or utilizing existing equipments?	VVM	60	The project activity is in existing facility but the project activity is a new project activity with new equipments.	OK	OK
d. Is the CDM project activity one of the following types:	VVM	60			OK
i. Large scale?	VVM	60	Yes, the project large scale.	OK	OK
ii. Non-bundled small scale projects with emission reductions exceeding 15,000 tonnes per year?	VVM	60			OK
iii. Bundled small scale projects, each with emission reductions not exceeding 15,000 tonnes?	VVM	60			OK
e. If yes to (c) and (d) above, was a physical site inspection conducted to confirm that the description in the PDD reflects the proposed CDM project activity, unless other means are specified in the methodology?	VVM	60	Yes, physical site visit conducted by BV on 19-20 July 2010 and it is confirmed that the description in the PDD reflects the proposed CDM project activity.	OK	OK
f. If yes to (d.iii) above, was the number of physical site visits base on samping?	VVM	60	The project site has been confirmed during site visit.	OK	OK



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g. If yes is the sampling size appropriately justified through statistical analysis?	VVM	60	n.a.	OK	OK
h. For other individual proposed small scale CDM project activities with emission reductions not exceeding 15,000 tonnes per year, was a physical site inspection conducted?	VVM	61	n.a.	OK	OK
i. For all other proposed CDM project activities not referred to in paragraphs 59 – 61, was a physical site inspection conducted?	VVM	62	n.a.	OK	OK
j. If no, was it appropriately justified?	VVM	62	n.a.	OK	OK
k. Does the proposed CDM project activity involve the alteration of an existing installation or process?	VVM	63	Yes, the project activity is the alteration of an existing installation. Before the project activity gas lift gas emissions was venting but with the project activity the gas is collecting and PDD clearly describes the difference in the plant with the project activity.	OK	OK
l. If yes, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	VVM	63	Yes, the project activity is the alteration of an existing installation. Before the project activity gas lift gas emissions was venting but with the project activity the gas is collecting and PDD clearly describes the difference in the plant with the project activity.	OK	OK
5. Baseline and monitoring methodology					
a. General requirement					
a. Do the the baseline and monitoring methodologies selected by the project participants comply with the methodologies previously approved by the CDM Executive Board?	VVM	65	Yes, approved methodology AM0009 has been selected by the project participants.	OK	OK
b. Is the selected methodology applicable to the	VVM	66	Refer to (5.b.a) below	-	-



VALIDATION REPORT

c. Had the PP correctly applied the selected methodology?	VVM	66	Refer to (5.b.c) below	-	-
d. Had the selected methodology been correctly applied with respect to project boundary?	VVM	67	Refer to (5.c) below	-	-
e. Had the selected methodology been correctly applied with respect to baseline identification?	VVM	67	Refer to (5.d) below	-	-
f. Had the selected methodology been correctly applied with respect to Algorithms and/or formulae used to determine emission reductions?	VVM	67	Refer to (5.e) below	-	-
g. Had the selected methodology been correctly applied with respect to additionality?	VVM	67	Please refer to Table 2 (2.2) for the additionality.	OK	OK
i. Specific questions per methodology regarding application of the methodology with respect to additionality.			Please refer to Table 2 (2.2) for the additionality.	OK	OK
h. Had the selected methodology been correctly applied with respect to monitoring methodology?	VVM	67	Please refer to Table 2 (3) for the monitoring methodology.	OK	OK
i. Specific questions per methodology regarding application of the methodology with respect to monitoring methodology.			Please refer to Table 2 (3) for the monitoring methodology.	OK	OK
b. Applicability of the selected methodology to the project activity					
a. Is the selected baseline and monitoring methodology, previously approved by the CDM Executive Board, applicable to the project activity?	VVM	68	Yes, the selected baseline and monitoring methodology is applicable to the project activity. Please refer to Table2 (1.3)	OK	OK
i. Specific questions per methodology regarding applicability.			Yes, the selected baseline and monitoring methodology is applicable to the project activity. Please refer to Table2 (1.3)	OK	OK
b. Is the methodology correctly quoted?	VVM	69	Yes, the methodology correctly quoted.	OK	OK



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c. Are the applicability conditions of the methodology met?	VVM	70	Please refer to Table2 (1.3)	OK	OK
ii. Specific questions per methodology regarding applicability conditions.			Please refer to Table2 (1.3)	OK	OK
d. Is the project activity expected to result in emissions other than those allowed by the methodology?	VVM	70	Only CO2 may be occurred from the project activity because of the consumption of fossil fuels (for compressors) and use of electricity (collector platforms).	OK	OK
e. Is the choice of the methodology justified?	VVM	70	Project activity is focused on recovery and utilization of the low pressure associated gas and the justification for the applicability has been identified.	OK	OK
f. Have the project participants shown that the project activity meets each of the applicability conditions or the approved methodology?	VVM	70	Refer to (5.b.c) above	-	-
g. Have the project participants shown that the project activity meets each of the applicability conditions of any tool or other methodology component referred to the methodology?	VVM	70	<p>The project proponent uses following tools according to the methodology,</p> <ul style="list-style-type: none"> • Tool to calculate baseline, project and/or leakage emissions from electricity consumption, version 01; • Tool to calculate project or leakage CO2 emissions from fossil fuel combustion, version 02. <p>To calculate the CO2 emissions due to combustion of fossil fuels and the use of electricity. The applicability conditions are indicated in the related sections of the PDD.</p>	OK	OK



VALIDATION REPORT

iii. Specific questions per methodology regarding applicability conditions of any tool or other methodology component referred to the methodology.			Please refer to Table2 – 1.3 of this protocol.	OK	OK
h. Is the DOE, based on local and sectoral knowledge, aware that comparable information is available from sources other than that used in the PDD?	VVM	70	LY		
i. If yes, was the PDD cross checked against the other sources to confirm that the project activity meets the applicability conditions of the methodology? (provide the reference to these choices)	VVM	70	LY		
j. Can a determination regarding the applicability of the selected methodology to the proposed CDM project activity be made?	VVM	71	Yes, the applicability of the selected methodology can be determined.	OK	OK
k. If no, clarification of the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	71	n.a.	OK	OK
l. If answer to (5.b.c) above is “no”, revision or deviation from the methodology was requested, in accordance with the guidance provided by the CDM Executive Board?	VVM	72	n.a.	OK	OK
m. If yes to (5.b.k) and (5.b.l) above, a request for registration was submitted before the CDM Executive Board has approved the proposed deviation or revision?	VVM	73	n.a.	OK	OK
c. Project boundary					



VALIDATION REPORT

a. Does the PDD correctly describe the project boundary, including the physical delineation of the proposed CDM project activity included within the project boundary for the purpose of calculating project and baseline emissions for the proposed CDM project activity?	VVM	77	Yes, the PDD clearly describes the boundary of the project activity. The schematic illustration of the project has been provided in section B.3. Figure B.3.1	OK	OK
i. Specific questions per methodology regarding application of the methodology with respect to project boundary.			Please refer to Table2- 2.1 of this protocol.	OK	OK
b. Is the delineation in the PDD of the project boundary correct?	VVM	78	Yes, boundaries showed in the delineation are correct.	OK	OK
c. Does the delineation in the PDD of the project boundary meet the requirements of the selected baseline?	VVM	78	Yes, delineation in the PDD of the project boundary meets the requirements of the selected baseline.	OK	OK
d. Have all sources and GHGs required by the methodology been included within the project boundary?	VVM	78	Yes, all sources and GHG'S are included within the project boundary.	OK	OK
e. Does the methodology allow project participant to choose whether a source or gas is to be included within the project boundary?	VVM	78	GHG's that has to be included or excluded defined in Table-1 of the methodology. The project is in line with the defined table. CO2 is included both in project and baseline emissions.	OK	OK
f. If yes, have the project participants justified that choice?	VVM	78	n.a.	OK	OK
g. If yes, is the justification provided reasonable? (provide reference to the supporting documented evidence provided by the project participants)	VVM	78	n.a.	OK	OK
d. Baseline identification					



VALIDATION REPORT

a. Does the PDD identify the baseline for the proposed CDM project activity, defined as the scenario that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the proposed CDM project activity?	VVM	80	Baseline alternatives identified as G1-G6-P3-P4-O1 in the PDD as follows which is accepted by the validation team. * <i>Release of the associated gas and/or gas-lift gas into the atmosphere at the oil production site,</i> * <i>Recovery, transportation, processing of the associated gas and/or gas-lift gas and distribution of products thereof to end-users without being registered as a CDM project activity</i> * <i>Supplying recovered gas to an existing gas processing plant and constructing the necessary infrastructure, without being registered as a CDM project activity;</i> * <i>Continuation of the operation of the existing oil and gas infrastructure without processing of any recovered associated gas and/or gas-lift gas and without any other significant changes;</i> * <i>Gas from the same source as under the project activity and in the same quantity as under the project activity, is used for the gas-lift system.</i>	OK	OK
b. Has any procedure contained in the methodology to identify the most reasonable baseline scenario, been correctly applied?	VVM	81	Yes, the procedure contained in the methodology correctly applied.	OK	OK
i. Specific questions per methodology regarding application of any procedure contained in the methodology to identify the most reasonable baseline scenario.			Please refer to Table 2 Section 2.2 of this protocol.	OK	OK



VALIDATION REPORT

c. Does the selected methodology require use of tools (such as the “Tool for the demonstration and assessment of additionality” and the “Combined tool to identify the baseline scenario and demonstrate additionality”) to establish the baseline scenario?	VVM	81	Yes, the selected methodology AM0009 requires the use of additionality tool to define the baseline scenario to evaluate the economic attractiveness of the alternatives and the common practice analysis.	OK	OK
d. If yes, was the methodology consulted on the application of these tools? (In such cases, the guidance in the methodology shall supersede the tool.)	VVM	81	Yes, the IRR calculation (benchmark analysis and sensitivity analysis) and common practice analysis based on the additionality tool as referred by the methodology.	OK	OK
i. Specific questions per methodology regarding application of tools to establish the most reasonable baseline scenario.			Please refer to Table 2. Section 2.2 of this protocol.	OK	OK
e. Does the methodology require several alternative scenarios to be considered in the identification of the most reasonable baseline scenario?	VVM	82	Yes, the methodology requires several alternative scenarios to be considered in the identification of the most reasonable baseline scenario. Alternative G1-G6-P3-P4 and O1 defined as alternatives.	OK	OK
f. If yes, are all scenarios that are considered by the project participants and are supplementary to those required by the methodology reasonable in the context of the proposed CDM project activity?	VVM	82	Yes, all scenarios that are considered by the project participants are reasonable. Please refer to Table 2 section 2.2 of the protocol.	OK	OK
g. Has any reasonable alternative scenario been excluded?	VVM	82	No, all reasonable alternatives considered to identify the baseline scenario.	OK	OK
h. Is the baseline scenario identified reasonably supported by:	VVM	83			OK
i. Assumptions?	VVM	83	Yes, baseline scenarios identified supported by the assumptions. (Agreed price for the delivery of recovered gas – sensitivity analysis)	OK	OK
ii. Calculations?	VVM	83	Yes, baseline scenarios identified supported by the calculations. (IRR calculation)	OK	OK



VALIDATION REPORT

iii. Rationales?	VVM	83	Yes, baseline scenarios identified supported by the rationales.	OK	OK
i. Are the documents and sources referred to in the PDD correctly quoted and interpreted?	VVM	83	Yes, the sources referred are correct in the PDD.	OK	OK
j. Was the information provided in the PDD cross checked with other verifiable and credible sources, such as local expert opinion, if available? (identify the sources)	VVM	83	LY		
k. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario for the proposed CDM project activity?	VVM	84	Yes, all CDM requirements taken into account.	OK	OK
l. Have all relevant policies and circumstances been identified and correctly considered in the PDD, in accordance with the guidance by the CDM Executive Board?	VVM	84	Yes, the baseline alternatives are in line with the policies and circumstances.	OK	OK
m. Does the PDD provide a verifiable description of the identified baseline scenario, including a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM project activity?	VVM	85	Yes, the PDD provide verifiable description of the identified baseline scenario.	OK	OK
e. Algorithms and/or formulae used to determine emission reductions					
a. Do the steps taken and equations applied to calculate project emissions, baseline emissions, leakage and emission reductions comply with the requirements of the selected baseline and monitoring?	VVM	88	<p>Yes, project emissions, emission reductions and baseline emissions calculated based on the AM009Ver.4 as follows which are in line with the methodology.</p> $PE_y = PE_{CO2, fossil\ fuels, y} + PE_{CO2, elec, y}$ <ol style="list-style-type: none"> $ER_y = BE_y - PE_y$ $BE_y = V_{F, y} \cdot NCV_{RG, F, y} \cdot EF_{CO2, methane}$ 	OK	OK



VALIDATION REPORT

b. Have the equations and parameters in the PDD been correctly applied with respect those in the select approved methodology?	VVM	89	Yes, equations been correctly applied for the project activity.	OK	OK
i. Specific questions per methodology regarding steps taken and equations and parameters applied to calculate project emissions, baseline emissions, leakage and emission reductions.			Please refer to Table2- Section 2.3-2.4	OK	OK
c. Does the methodology provide for selection between different options for equations or parameters?	VVM	89	No, no selection has been done for the parameters.	OK	OK
d. If yes, has adequate justification been provided (based on the choice of the baseline scenario, context of the proposed CDM project activity and other evidence provided)?	VVM	89	n.a.	OK	OK
e. If yes, have correct equations and parameters been used, in accordance with the methodology selected?	VVM	89	Refer to (5.e.b) above	-	-
f. Will data and parameters be monitored throughout the crediting period of the proposed CDM project activity?	VVM	90	Yes, data and parameters will be monitored throughout the crediting period.	OK	OK
g. If no, and these data and parameters will remain fixed throughout the crediting period, are all data sources and assumptions:	VVM	90	n.a.	OK	OK
i. Appropriate and correct?	VVM	90	n.a.	OK	OK
ii. Applicable to the proposed CDM project activity?	VVM	90	n.a.	OK	OK
iii. Resulting in a conservative estimate of the emission reductions?	VVM	90	n.a.	OK	OK



VALIDATION REPORT

h. Will data and parameters be monitored on implementation and hence become available only after validation of the project activity?	VVM	90	Only usage Time of the compressor will be estimated. And it is assumed that it will work 7/24 for the calculating electricity consumption. This assumption found conservative for the project emissions. Other data's will be available after implementation of the project activity.	OK	OK
i. If yes, are the estimates provided in the PDD for these data and parameters reasonable?	VVM	90	Only usage Time of the compressor will be estimated. And it is assumed that it will work 7/24 for the calculating electricity consumption. This assumption found conservative for the project emissions.	OK	OK
6. Additionality of a project activity					
a. Does the PDD describe how a proposed CDM project activity is additional?	VVM	93	Yes, PDD describes the compliance with the additionality tool.	OK	OK
b. Does the CDM-PDD state the latest version of the additionality tool being used?	VVM	94	Yes, to demonstrate additionality "Tool for the demonstration and assessment of additionality" Version 05.2 has been used which is the latest version.	OK	OK
c. Were the following steps of the tool to assess additionality used:	EB 39	Ann 10			OK
i. Identification of alternatives to the project activity?	EB 39	Ann 10	Alternatives have been identified as requested by the baseline methodology AM0009 Version 9.	OK	OK
ii. Investment analysis to determine that the proposed project activity is either: 1) not the most economically or financially attractive, or 2) not economically or financially feasible?	EB 39	Ann 10	Investment analysis has been applied as requested by the methodology AM0009 in line with the additionality tool and it is indicated that project is not the most economically or financially attractive project.	OK	OK



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iii. Barriers analysis?	EB 39	Ann 10	Barrier Analysis is not applied to the project activity which is in line with the selected baseline methodology.	OK	OK
iv. Common practice analysis?	EB 39	Ann 10	Common Practice analysis has been applied to the project activity with in line with the additionality tool.	OK	OK
d. In step 1 (i) have all the sub-steps as below been followed?	EB 39	Ann 10			OK
i. Sub-step 1a: Define alternatives to the project activity	EB 39	Ann 10	Yes, alternatives have been defined for the project activity.	OK	OK
ii. Sub-step 1b: Consistency with mandatory laws and regulations	EB 39	Ann 10	Consistency with the mandatory laws and regulations has been demonstrated.	OK	OK
e. Have the following alternatives been included while defining alternatives as per sub-step 1a?	EB 39	Ann 10			
i. (a) The proposed project activity undertaken without being registered as a CDM project activity;	EB 39	Ann 10	Yes, the proposed project activity undertaken without being registered as CDM project activity defined as an alternative. (G6-P3)	OK	OK
ii. (b) Other realistic and credible alternative scenario(s) to the proposed CDM project activity scenario that deliver outputs services or services with comparable quality, properties and application areas, taking into account, where relevant, examples of scenarios identified in the underlying methodology;	EB 39	Ann 10	Other alternatives have been discussed as requested by the selected methodology AM0009 and they found impossible.	OK	OK
iii. (c) If applicable, continuation of the current situation (no project activity or other alternatives undertaken).	EB 39	Ann 10	Continuation of the current situation has been identified as an alternative.(G1-P4-O1)	OK	OK



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f. Has the project participant included the technologies or practices that provide outputs or services with comparable quality, properties and application areas as the proposed CDM project activity and that have been implemented previously or are currently being introduced in the relevant country/region?	EB 39	Ann 10	No, there is no similar project activity to compare has been identified since there is no other implemented or introduced.	OK	OK
g. Has the outcome of Step 1a: Identified realistic and credible alternative scenario(s) to the project activity done correctly? Please briefly mention the outcome.	EB 39	Ann 10	<p>Yes, 2 alternatives have been identified as follows,</p> <p>Alternative 1- Continuation of current practice of venting of the low-pressure associated gas at the oil production site (G1), operation of the existing oil and gas infrastructure without any other significant changes (P4), and use of gas from the same source and in the same quantity for the gas-lift system as under the project activity (O1).</p> <p>Alternative 2: Recovery, transportation, processing of recovered gas in the existing gas processing plant and constructing the necessary infrastructure (G6 and P3), without registered as a CDM project activity, and use of gas from the same source and in the same quantity for the gas-lift system as in the baseline</p>	OK	OK
h. Is the alternative(s) in compliance with all mandatory applicable legal and regulatory requirements, even if these laws and regulations have objectives other than GHG reductions, e.g. to mitigate local air pollution.?	EB 39	Ann 10	Yes, the defined alternatives are in line with applicable legal requirements.	OK	OK



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i. If an alternative does not comply with all mandatory applicable legislation and regulations, has it been shown that, based on an examination of current practice in the country or region in which the law or regulation applies, those applicable legal or regulatory requirements are systematically not enforced and that noncompliance with those requirements is widespread in the country?	EB 39	Ann 10	n.a.	OK	OK
j. Has the outcome of Step 1b: Identified realistic and credible alternative scenario(s) to the project activity that are in compliance with mandatory legislation and regulations taking into account the enforcement in the region or country and EB decisions on national and/or sectoral policies and regulations done correctly? Please state the outcome.	EB 39	Ann 10	The outcomes for Alternative1 and 2 has been stated as follows, Alternative1- Taking into consideration the laws and resolutions described above, the oil producing companies had no or very limited economic incentives to improve associated gas recovery in Azerbaijan. Even though there is a clear Government's intention to improve air quality through reduction or limitation of harmful emissions, there are still legal options for exceptions and deviation from the rules. The continuation of existing practice at Neft Dashlari and Palchiq Pilpillasi oil fields is, therefore, a feasible alternative complying with all applicable national regulations. Alternative2- The proposed project activity focuses on recovery, transportation, processing of recovered gas in the existing gas processing plant, and injection of the associated gas into an oil or gas reservoir. The planned activity is not prohibited by law and can be implemented in accordance with all applicable legal and regulatory requirements listed above.	OK	OK



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k. Has PP selected Step 2 (Investment analysis) or Step 3 (Barrier analysis) or both Steps 2 and 3?	EB 39	Ann 10	The investment analysis has been applied by the project participants which is in line with the selected baseline methodology.	OK	OK
l. In step 2, have all the sub-steps as below been followed?	EB 39	Ann 10			
i. Sub-step 2a: Determine appropriate analysis method;	EB 39	Ann 10	IRR has been calculated as requested by the selected methodology.	OK	OK
ii. Sub-step 2b: Option I. Apply simple cost analysis;	EB 39	Ann 10	n.a.	OK	OK
iii. Sub-step 2b: Option II. Apply investment comparison analysis;	EB 39	Ann 10	n.a.	OK	OK
iv. Sub-step 2b: Option III. Apply benchmark analysis;	EB 39	Ann 10	Yes, benchmark analysis has been carried out.	OK	OK
v. Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III);	EB 39	Ann 10	IRR has been calculated as requested by the methodology.	OK	OK
vi. Sub-step 2d: Sensitivity analysis (only applicable to Options II and III).	EB 39	Ann 10	Sensitivity analysis has been carried out as requested by the methodology.	OK	OK
m. In sub-step 2a has the determination of appropriate method of analysis done as per the guidance as below?	EB 39	Ann 10			OK
i. Simple cost analysis if the CDM project activity and the alternatives identified in Step 1 generate no financial or economic benefits other than CDM related income (Option I).	EB 39	Ann 10	n.a.	OK	OK
ii. Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III). Specify option used with justification.	EB 39	Ann 10	Benchmark analysis has been applied to the project activity.	OK	OK



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n. Has the below guideline followed for sub-step 2b Option I. Apply simple cost analysis? Document the costs associated with the CDM project activity and the alternatives identified in Step1 and demonstrate that there is at least one alternative which is less costly than the project activity.	EB 39	Ann 10	n.a.	OK	OK
o. Has the below guideline followed for sub-step 2b Option II. Apply investment comparison analysis? Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context. Please specify	EB 39	Ann 10	n.a.	OK	OK
p. Has the below guideline followed for Sub-step 2b: Option III. Apply benchmark analysis?	EB 39	Ann 10			
i. Identify the financial/economic indicator, such as IRR, most suitable for the project type and decision context.	EB 39	Ann 10	Yes, IRR has been identified as requested by the selected methodology AM0009 Version4.	OK	OK
ii. When applying Option II or Option III, the financial/economic analysis shall be based on parameters that are standard in the market, considering the specific characteristics of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer. Only in the particular case where the project activity can be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered.	EB 39	Ann 10	Please refer to section 6.c		



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<p>iii. Discount rates and benchmarks shall be derived from: (a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data; (b) Estimates of the cost of financing and required return on capital (e.g. commercial lending rates and guarantees required for the country and the type of project activity concerned), based on bankers views and private equity investors/funds' required return on comparable projects; (c) A company internal benchmark (weighted average capital cost of the company), only in the particular case referred to above in 2. The project developers shall demonstrate that this benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark; (d) Government/official approved benchmark where such benchmarks are used for investment decisions; (e) Any other indicators, if the project participants can demonstrate that the above Options are not applicable and their indicator is appropriately justified. Please specify benchmark and justify.</p>	EB 39	Ann 10	Please refer to section 6.c		
<p>q. Has the below guideline followed for Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III)?</p>	EB 39	Ann 10			



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i. Calculate the suitable financial indicator for the proposed CDM project activity and, in the case of Option II above, for the other alternatives. Include all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues (excluding CER revenues, but possibly including inter alia subsidies/fiscal incentives, ODA, etc, where applicable), and, as appropriate, non-market cost and benefits in the case of public investors if this is standard practice for the selection of public investments in the host country.	EB 39	Ann 10	Please refer to section 6.c		
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iii. Justify and/or cite assumptions.	EB 39	Ann 10	Please refer to section 6.c		OK
iv. In calculating the financial/economic indicator, the project's risks can be included through the cash flow pattern, subject to project-specific expectations and assumptions.	EB 39	Ann 10	Please refer to section 6.c		OK
v. Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated.	EB 39	Ann 10	Please refer to section 6.c		OK
vi. Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity. Please specify details for above.	EB 39	Ann 10	Please refer to section 6.c		OK
r. Has the below guideline followed for Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)? Include a sensitivity analysis that shows whether the conclusion regarding the financial/economic attractiveness is robust to reasonable variations in the critical assumptions.	EB 39	Ann 10	Please refer to section 6.c		OK
s. Has the outcome of Step 2 clearly mentioned with justification?	EB 39	Ann 10	Please refer to section 6.c		OK
t. In step 3: Barrier analysis have all the sub-steps as below been followed?	EB 39	Ann 10	Barrier Analysis did not applied to the project activity.	OK	OK
i. Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity;	EB 39	Ann 10	n.a.	OK	OK
ii. Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity).	EB 39	Ann 10	n.a.	OK	OK



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u. Has the below guideline followed for Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project?	EB 39	Ann 10	n.a.	OK	OK
i. (a) Investment barriers: For alternatives undertaken and operated by private entities: Similar activities have only been implemented with grants or other non-commercial finance terms. No private capital is available from domestic or international capital markets due to real or perceived risks associated with investment in the country where the proposed CDM project activity is to be implemented, as demonstrated by the credit rating of the country or other country investments reports of reputed origin.	EB 39	Ann 10	n.a.	OK	OK



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ii. (b) Technological barriers: Skilled and/or properly trained labour to operate and maintain the technology is not available in the relevant country/region, which leads to an unacceptably high risk of equipment disrepair and malfunctioning or other underperformance; Lack of infrastructure for implementation and logistics for maintenance of the technology, Risk of technological failure: the process/technology failure risk in the local circumstances is significantly greater than for other technologies that provide services or outputs comparable to those of the proposed CDM project activity, as demonstrated by relevant scientific literature or technology manufacturer information, The particular technology used in the proposed project activity is not available in the relevant region.	EB 39	Ann 10	n.a.	OK	OK
iii. (c) Barriers due to prevailing practice: The project activity is the "first of its kind".	EB 39	Ann 10	n.a.	OK	OK
iv. (d) Other barriers, preferably specified in the underlying methodology as examples.	EB 39	Ann 10	n.a.	OK	OK
v. Has the outcome from Step 3a clearly mentioned in PDD?	EB 39	Ann 10	n.a.	OK	OK
w. Has the below guideline followed for Sub-step 3 b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)?	EB 39	Ann 10	n.a.	OK	OK



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i. If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity. In other words, demonstrate that the identified barriers do not prevent the implementation of at least one of the alternatives. Any alternative that would be prevented by the barriers identified in Sub-step 3a is not a viable alternative, and shall be eliminated from consideration.	EB 39	Ann 10	n.a.	OK	OK
ii. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers and whether alternatives are prevented by these barriers.	EB 39	Ann 10	n.a.	OK	OK



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iii. The type of evidence to be provided should include at least one of the following: (a) Relevant legislation, regulatory information or industry norms; (b) Relevant (sectoral) studies or surveys (e.g. market surveys, technology studies, etc) undertaken by universities, research institutions, industry associations, companies, bilateral/multilateral institutions, etc; (c) Relevant statistical data from national or international statistics; (d) Documentation of relevant market data (e.g. market prices, tariffs, rules); (e) Written documentation of independent expert judgments from industry, educational institutions (e.g. universities, technical schools, training centres), industry associations and others. Please specify.	EB 39	Ann 10	n.a.	OK	OK
x. Has the outcome from Step 3 clearly mentioned in PDD?	EB 39	Ann 10	n.a.	OK	OK
y. In step 4: Common practise analysis have all the sub-steps as below followed?	EB 39	Ann 10			
i. Sub-step 4a: Analyze other activities similar to the proposed project activity;	EB 39	Ann 10	Yes, Step 4a is followed to demonstrate common practice analysis	OK	OK
ii. Sub-step 4b: Discuss any similar Options that are occurring.	EB 39	Ann 10	Yes, Step 4b is followed to demonstrate common practice analysis	OK	OK



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<p>z. Has the below guideline followed for Sub-step 4a: Analyze other activities similar to the proposed project activity? Provide an analysis of any other activities that are operational and that are similar to the proposed project activity. Other CDM project activities are not to be included in this analysis. Provide documented evidence and, where relevant, quantitative information. On the basis of that analysis, describe whether and to which extent similar activities have already diffused in the relevant region.</p>	EB 39	Ann 10	<p>Guneshli project is similar with the project activity however the project also under validation for CDM revenues so it is excluded from the analysis. (Please refer to Car10 and CL21 below)</p> <p>The references have been provided. <u>The corrective action request is closed.</u></p> <p>The corrected link is added in PDD - http://www.bp.com/genericarticle.do?categoryId=9029687&contentId=7013491</p> <p>The corrected link has been provided. <u>The clarification request is closed.</u></p>	OK	OK
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aa. Has the below guideline followed for Sub-step 4b: Discuss any similar Options that are occurring? If similar activities are identified, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially/economically unattractive or subject to barriers. This can be done by comparing the proposed project activity to the other similar activities, and pointing out and explaining essential distinctions between them that explain why the similar activities enjoyed certain benefits that rendered it financially/economically attractive (e.g., subsidies or other financial flows) and which the proposed project activity cannot use or did not face the barriers to which the proposed project activity is subject. In case similar projects are not accessible, the PDD should include justification about non-accessibility of data/information.	EB 39	Ann 10	(Please refer to Car10 and CL21 below) The references have been provided. <u>The corrective action request is closed.</u> The corrected link is added in PDD - http://www.bp.com/genericarticle.do?categoryId=9029687&contentId=7013491 The corrected link has been provided. <u>The clarification request is closed.</u>	OK	OK
bb. Has the outcome from Step 4 clearly mentioned in PDD?	EB 39	Ann 10	When other CDM activities excluded as requested by the methodology, It is stated that there is no similar activities with the project activity	OK	OK
cc. Has it been proved that the project is additional?	EB 39	Ann 10	It will be decided after all CAR's/CL's closed.	OK	OK



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a. Prior consideration of the clean development mechanism					
a. Is the project activity start date prior to the date of publication of the PDD for stakeholder comments?	VVM	96	Yes, Project start date defined as 2 April 2007 and PDD is made publicly available for stakeholder comments on 11 th of June 2010 which is later than the project start date.	OK	OK
b. If yes, were the CDM benefits considered necessary in the decision to undertake the project as a proposed CDM project activity?	VVM	96	Yes, the letter dd. March 2007 from the Deputy Minister of Energy and Industry (Letter of the Deputy Minister of Industry and Energy dated March 6, 2007 confirms that project at OGPD Neft Dashlari was prepared and developed under CDM.) has been provided by PP.	OK	OK
c. Is the start date of the project activity, reported in the PDD, in accordance with the "Glossary of CDM terms", which states that "The starting date of a CDM project activity is the earliest date at which either the implementation or construction or real action of a project activity begins."?	VVM	97	Yes, the start date of the project activity is in line with the CDM glossary. IT is the date of contract for construction and installation.	OK	OK
d. Does the project activity require construction, retrofit or other modifications?	VVM	97	Yes, the project requires construction.	OK	OK
e. If yes, is it ensured that the date of commissioning cannot be considered as the project activity start date?	VVM	97	The start date defined as the contract date for the construction which is acceptable.	OK	OK
f. Is it a new project activity (a project activity with a start date on or after 02 August 2008) or an existing project activity (a project activity with a start date before 02 August 2008)?	VVM	98	It is an existing project activity which's start date is before 02 August 2008.	OK	OK



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g. For a new project, for which PDD has not been published for global stakeholder consultation or a new methodology proposed to the CDM Executive Board before the project activity start date, had PPs informed the host Party DNA and the UNFCCC secretariat in writing of the commencement of the project activity and of their intention to seek CDM status? (Provide reference to such confirmation from host Party DNA and UNFCCC secretariat).	VVM	99	n.a.	OK	OK
h. For an existing project activity, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are the following evidences provided:	VVM	100			
ii. evidence that must indicate that awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project, including, inter alia:	VVM	100			
a. minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a proposed CDM project activity?			Yes, the Letter by the Deputy Minister of Energy and Industry (Letter of the Deputy Minister of Industry and Energy dated March 6, 2007 confirms that project at OGPD Neft Dashlari was prepared and developed under CDM.) has been provided to show that CDM revenues has been considered before the construction.	OK	OK
iii. reliable evidence from project participants that must indicate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation, including, inter alia:	VVM	101			
a. contract with consultants for CDM/PDD/methodology services?	VVM	100	n.a.	OK	OK



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b. Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds)?	VVM	100	n.a.	OK	OK
c. evidence of agreements or negotiations with a DOE for validation services?	VVM	100	n.a.	OK	OK
d. submission of a new methodology to the CDM Executive Board?	VVM	100	n.a.	OK	OK
e. publication in newspaper?	VVM	100	n.a.	OK	OK
f. interviews with DNA?	VVM	100	The letter of Gas Research Institute to the president of Socar on establishing climate change development team for projects and application for LoE has been seen which dd. 10.12.2007.	OK	OK
g. earlier correspondence on the project with the DNA or the UNFCCC secretariat?	VVM	100	n.a.	OK	OK
b. Identification of alternatives					
a. Does the approved methodology that is selected by the proposed CDM project activity prescribe the baseline scenario and hence no further analysis is required?	VVM	103	The methodology AM0009 Ver.4 advises the possible alternatives to be discussed.	OK	OK
b. If no, does the PDD identify credible alternatives to the project activity in order to determine the most realistic baseline scenario?	VVM	103	Yes, PP defined the most plausible alternatives.	OK	OK
c. Does the list of alternatives given in the PDD ensure that:	VVM	104			OK
i. the list of alternatives includes as one of the options that the project activity is undertaken without being registered as a proposed CDM project activity?	VVM	104	Yes, one of the alternative is undertaken without being registered as a CDM project activity.	OK	OK



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ii. the list contains all plausible alternatives that the DOE, on the basis of its local and sectoral knowledge, considers to be viable means of supplying the outputs or services that are to be supplied by the proposed CDM project activity?	VVM	104	Yes, defined alternatives are supplying the outputs that are to be supplied by the proposed CDM project activity.	OK	OK
iii. the alternatives comply with all applicable and enforced legislation?	VVM	104	Yes, the alternatives are in line with the legislations of the host country.	OK	OK
c. Investment analysis					
a. Has investment analysis been used to demonstrate the additionality of the proposed CDM project activity?	VVM	106	Investment analysis has been used to demonstrate the additionality of the proposed CDM activity.	OK	OK
b. If yes, does the PDD provide evidence that the proposed CDM project activity would not be:	VVM	106	Conclusion will be made after i-ii has been concluded.		
i. the most economically or financially attractive alternative?	VVM	106	The PDD provides evidence that the proposed project activity is not the most financially alternative with performing benchmark analysis.	OK	OK
ii. economically or financially feasible, without the revenue from the sale of certified emission reductions (CERs)?	VVM	106	n.a.	OK	OK
c. Was this shown by one of the following approaches?	VVM	107			
i. The proposed CDM project activity would produce no financial or economic benefits other than CDM-related income. Document the costs associated with the proposed CDM project activity and the alternatives identified and demonstrate that there is at least one alternative which is less costly than the proposed CDM project activity.	VVM	107	n.a.	OK	OK OK



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ii. The proposed CDM project activity is less economically or financially attractive than at least one other credible and realistic alternative.	VVM	107	Yes, the project activity is less attractive than the defined alternatives. It is calculated with the IRR excel sheets.	OK	OK
iii. The financial returns of the proposed CDM project activity would be insufficient to justify the required investment.	VVM	107	n.a.	OK	OK
d. Is the period of assessment limited to the proposed crediting period of the CDM project activity?	EB 51	Ann 58	The period of assessment has been selected as 10 years; the period of assessment is limited to the end of proposed crediting period.	OK	OK
e. Does the project IRR and equity IRR calculations reflect the period of expected operation of the underlying project activity (technical lifetime), or - if a shorter period is chosen - include the fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	It is stated that the operational life time of the project is 15 years and the analysis period is taken as 10 years but the fair value is not taken into consideration. Please take the fair value as a cash inflow at the end of assessment period. <i>The correction has been accepted. Investment Analysis has been done for 15 years. <u>The clarification request is closed.</u></i>	CL22	OK



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f. Does the IRR calculation include the cost of major maintenance and/or rehabilitation if these are expected to be incurred during the period of assessment?	EB 51	Ann 58	<p>Please give information if the capital expenses in 2013 is due to the major maintenance and rehabilitation costs.</p> <p><i>Because major maintenance and rehabilitation costs are expected to be incurred during the period of assessment these costs are included in years 2013 and 2018 (25% of capital costs every 5 years). The required frequency of major maintenance varies, but generally in oil production industry is every four years. Our assumption is more conservative. The clarification found acceptable and <u>the clarification request is closed.</u></i></p>	CL23	OK
g. Do the project participants justify the appropriateness of the period of assessment in the context of the underlying project activity, without reference to the proposed CDM crediting period?	EB 51	Ann 58	It is stated that the operational life time of the project is 15 years and it is not related to the crediting period.	OK	OK
h. Does the cash flow in the final year include a fair value of the project activity assets at the end of the assessment period?	EB 51	Ann 58	There is no fair value application. Please calculate the fair value and add the value as a cash inflow. Please refer to CL22		OK
i. Has the fair value been calculated in accordance with local accounting regulations where available, or international best practice?	EB 51	Ann 58	There is no fair value application. Please calculate the fair value and add the value as a cash inflow. Please refer to CL22		OK
j. Does the fair value calculations include both the book value of the asset and the reasonable expectation of the potential profit or loss on the realization of the assets?	EB 51	Ann 58	Please refer to CL22		



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k. Was depreciation, and other non-cash items related to the project activity, which have been deducted in estimating gross profits on which tax is calculated, added back to net profits for the purpose of calculating the financial indicator (e.g. IRR, NPV)?	EB 51	Ann 58	<p>There is no depreciation application. Please include the depreciation in the analysis.</p> <p>In the version 1.04. of the PDD the depreciation has never been deducted from the income, it was just deducted for calculating the taxes. In the version of PDD 1.05 we have introduced a new line in the cash flow so that it is more visible that depreciation is included in the net profit.</p> <p>Review4</p> <p>The correction has been found acceptable. The clarification request is closed.</p>	CL24	OK
l. Has taxation been included as an expense in the IRR/NPV calculation in cases where the benchmark or other comparator is intended for post-tax comparisons?	EB 51	Ann 58	There is a profit tax application in the analysis.	OK	OK
m. Are the input values used in all investment analysis valid and applicable at the time of the investment decision taken by the project participant?	EB 51	Ann 58	No extraordinary figure is noticed in terms of being up-to-date at the time of investment.	OK	OK
n. Is the timing of the investment decision consistent and appropriate with the input values?	EB 51	Ann 58	The investment decision date is given in PDD clearly.	OK	OK
o. Are all the listed input values been consistently applied in all calculations?	EB 51	Ann 58	The input values have been consistently applied in the calculations	OK	OK
p. Does the investment analysis reflect the economic decision making context at point of the decision to recommence the project in the case of project activities for which implementation ceases after the commencement and where implementation is recommenced due to consideration of the CDM?	EB 51	Ann 58	As validated through the site; the implementation has not ceased after the commencement	OK	OK



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q. Have project participants supplied the spreadsheet versions of all investment analysis?	EB 51	Ann 58	Spreadsheet is supplied for the investment analysis.	OK	OK
r. Are all formulas used in this analysis readable and all relevant cells be viewable and unprotected?	EB 51	Ann 58	All formulas used in this analysis readable and all relevant cell are viewable and unprotected.	OK	OK
s. In cases where the project participant does not wish to make such a spreadsheet available to the public has the PP provided an exact read-only or PDF copy for general publication?	EB 51	Ann 58	All formulas used in this analysis readable and all relevant cell are viewable and unprotected.	OK	OK
t. In case the PP wishes to black-out certain elements of the publicly available version, is it justifiable?	EB 51	Ann 58	All formulas used in this analysis readable and all relevant cell are viewable and unprotected.	OK	OK
u. Was the cost of financing expenditures (i.e. loan repayments and interest) included in the calculation of project IRR?	EB 51	Ann 58	There is no loan used to finance the capital expenses. It is also not defined in the feasibility of the project.	OK	OK
v. In the calculation of equity IRR, has only the portion of investment costs which is financed by equity been considered as the net cash outflow?	EB 51	Ann 58	Equity financing is used as a cash inflow in the analysis to calculate the equity IRR. Also loan is not considered in the feasibility so equity IRR is acceptable.	OK	OK
w. Has the portion of the investment costs which is financed by debt been considered a cash outflow in the calculation of equity IRR? (this is not allowed)	EB 51	Ann 58	There is no loan used to finance the capital expenses, so this question is N/A.	OK	OK
x. Was a pre-tax benchmark be applied?	EB 51	Ann 58	The analysis is done based on the after tax values and the benchmark is applied accordingly.	OK	OK
y. In cases where a post-tax benchmark is applied, is actual interest payable taken into account in the calculation of income tax?	EB 51	Ann 58	N/A		OK



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z. In such situations, was interest calculated according to the prevailing commercial interest rates in the region, preferably by assessing the cost of other debt recently acquired by the project developer and by applying a debt-equity ratio used by the project developer for investments taken in the previous three years?	EB 51	Ann 58	N/A.	OK	OK
aa. In cases where a benchmark approach is used is the applied benchmark appropriate to the type of IRR calculated?	EB 51	Ann 58	Since no debt is used project and equity IRR calculations don't differ. So, selected benchmark is acceptable for the IRR calculation.	OK	OK
bb. Has local commercial lending rates or weighted average costs of capital (WACC) selected as appropriate benchmarks for a project IRR?	EB 51	Ann 58	N/A		OK
cc. Has required/expected returns on equity selected as appropriate benchmark for an equity IRR?	EB 51	Ann 58	appropriate benchmark is used to compare with the equity IRR.	OK	OK
dd. In case benchmarks supplied by relevant national authorities selected is it applicable to the project activity and the type of IRR calculation presented?	EB 51	Ann 58	In sheet "4_Parameters SOCAR" for the discount rate term there is a statement of "Central Bank of Azerbaijan". Please explain what does it refer to? Please give information if it is a publicly available information and documented clearly. Please give a reference for the information. <i>To obtain the benchmark rate, country risk premium is added to the risk free rate. The calculation is acceptable. The clarification request is closed.</i>	CL26	OK
ee. In the cases of projects which could be developed by an entity other than the project participant is the benchmark applied based on publicly available data sources which can be clearly validated?	EB 51	Ann 58	Project has been developed by the project participants.	OK	OK



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ff. Have internal company benchmarks/expected returns (including those used as the expected return on equity in the calculation of a weighted average cost of capital - WACC) been applied in cases where there is only one possible project developer?	EB 51	Ann 58	N/A	OK	OK
gg. In such cases, have these values been used for similar projects with similar risks, developed by the same company or, if the company is brand new, would have been used for similar projects in the same sector in the country/region?	EB 51	Ann 58	N/A	OK	OK
hh. Has a minimum clear evidence of the resolution by the company's Board and/or shareholders been provided to the effect as above?	EB 51	Ann 58	N/A	OK	OK
ii. Has a thorough assessment of the financial statements of the project developer - including the proposed WACC - to assess the past financial behavior of the entity during at least the last 3 years in relation to similar projects been conducted?	EB 51	Ann 58	N/A	OK	OK
jj. Does the risk premiums applied in the determination of required returns on equity reflect the risk profile of the project activity being assessed, established according to national/international accounting principles? (It is not considered reasonable to apply the rate general stock market returns as a risk premium for project activities that face a different risk profile than an investment in such indices.)	EB 51	Ann 58	There is no risk premium application since discount rate is directly referred to the central bank. N/A	OK	OK



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kk. Has an investment comparison analysis and not a benchmark analysis used when the proposed baseline scenario leaves the project participant no other choice than to make an investment to supply the same (or substitute) products or services?	EB 51	Ann 58	The baseline does not leave project participant no other choice than to make an investment to supply the same (or substitute) products or services; hence the checklist question is not applicable.	OK	OK
ll. Have variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues been subjected to reasonable variation (positive and negative) and the results of this variation been presented in the PDD and be reproducible in the associated spreadsheets?	EB 51	Ann 58	The sensitivity analysis has been carried out for the parameters given below; Environmental payments, Natural gas price, Gas production costs and Investment Cost. The selected parameters constitute 20% of either total project costs or total project revenues. Hence it has been concluded that the selected parameters are appropriate. Results of this variation been presented in the PDD and it is reproducible in the excel sheet.	OK	OK
mm. Have a corrective action been raised for a variable to be included in the sensitivity analysis which constitute less than 20% and have a material impact on the analysis ?	EB 51	Ann 58	There is no parameter to be included in the sensitivity analysis which constitute less than 20% and have a material impact on the analysis.	OK	OK
nn. Is the range of variations selected is reasonable in the project context?	EB 51	Ann 58	20% of variations is reasonable to see the project risks.	OK	OK
oo. Dos the variations in the sensitivity analysis at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances?	EB 51	Ann 58	There is no need to add +/-10% to the current sensitivities.	OK	OK



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pp. In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative, is an assessment done of the probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into consideration correlations between the variables as well as the specific socio-economic and policy context of the project activity?	EB 51	Ann 58	All scenarios in the sensitivity analysis can happen by one by or together. There is no major exception expected due to the correlation impact or the probability occurrence.	OK	OK
qq. Was the plant load factor defined ex-ante in the CDM-PDD according to one of the following options:	EB 48	Ann 11			OK
i. The plant load factor provided to banks and/or equity financiers while applying the project activity for project financing, or to the government while applying the project activity for implementation approval?	EB 48	Ann 11	n.a.	OK	OK
ii. The plant load factor determined by a third party contracted by the project participants (e.g. an engineering company)?	EB 48	Ann 11	The plant load factor determined by the engineering company.	OK	OK
rr. Was a thorough assessment of all parameters and assumptions used in calculating the relevant financial indicator, and determine the accuracy and suitability of these parameters using the available evidence and expertise in relevant accounting practices conducted?	VVM	109	Depreciations should be calculated. Please refer to CL23		OK



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ss. Were the parameters cross-checked against third-party or publicly available sources, such as invoices or price indices?	VVM	109	The financial figures are cross checked (Exchange rate, tax rate) Discount rate couldn't be verified. <i>To obtain the benchmark rate, country risk premium is added to the risk free rate. The calculation is acceptable. The clarification request is closed.</i>	CL26	OK
tt. Were feasibility reports, public announcements and annual financial reports related to the proposed CDM project activity and the project participants reviewed?	VVM	109	Yes, feasibility reports related to the project activity has been seen.	OK	OK
uu. Was the correctness of computations carried out and documented by the project participants assessed?	VVM	109	This will be answered at the end of the validation.	OK	OK
vv. Was the sensitivity analysis by the project participants to determine under what conditions variations in the result would occur, and the likelihood of these conditions assessed?	VVM	109	There is no need to do any improvement in the sensitivity table. However, there should be some clarification done so that it would be easy to reproduce the table for the DOE.	OK	OK
ww. Is the type of benchmark applied is suitable for the type of financial indicator presented?	VVM	110	Discount rate should be referenced by a publicly available document. Please refer to CL26 <i>To obtain the benchmark rate, country risk premium is added to the risk free rate. The calculation is acceptable. The clarification request is closed.</i>		OK
xx. Do any risk premiums applied determining the benchmark reflect the risks associated with the project type or activity?	VVM	110	N/A Since only discount rate is used as a benchmark risk premium figure is not taken into consideration.	OK	OK



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yy. To determine this, was it assessed whether it is reasonable to assume that no investment would be made at a rate of return lower than the benchmark by:					
i. assessing previous investment decisions by the project participants involved?	VVM	110	N/A	OK	OK
ii. determining whether the same benchmark has been applied?	VVM	110	N/A	OK	OK
iii. determining if there are verifiable circumstances that have led to a change in the benchmark?	VVM	110	N/A	OK	OK
zz. Did the project participants rely on values from Feasibility Study Reports (FSR) that are approved by national authorities for proposed CDM project activities?	VVM	111	Yes, the values are in line with the feasibility study report.	OK	OK
xx. If yes:	VVM	111			
i. has the FSR been the basis of the decision to proceed with the investment in the project, i.e. that the period of time between the finalization of the FSR and the investment decision is sufficiently short for the DOE to confirm that it is unlikely in the context of the underlying project activity that the input values would have materially changed?	VVM	111	The time of the period of the feasibility and the start date is in the same year. The data's found acceptable by the validation team.	OK	OK
ii. Are the values used in the PDD and associated annexes fully consistent with the FSR?	VVM	111	Yes, values are cross checked with the feasibility.	OK	OK
iii. If not, was the appropriateness of the values validated?	VVM	111	N/A		



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iv. On the basis of its specific local and sectoral expertise, is confirmation provided, by cross-checking or other appropriate manner, that the input values from the FSR are valid and applicable at the time of the investment decision?	VVM	111	The time of the period of the feasibility and the start date is in the same year. The data's found acceptable by the validation team.	OK	OK
d. Barrier analysis					
a. Has barrier analysis been used to demonstrated the additionality of the proposed CDM project activity?	VVM	113	No, barrier analysis did not applied to the project activity regarding to the methodology.	OK	OK
b. If yes, does the PDD demonstrate that the proposed CDM project activity faces barriers that:	VVM	113	n.a.	OK	OK
i. prevent the implementation of this type of proposed CMD project activity?	VVM	113	n.a.	OK	OK
ii. do not prevent the implementation of at least one of the alternatives?	VVM	113	n.a.	OK	OK
c. Are there any issues that have a clear direct impact on the financial returns of the project activity, other than: risk related barriers, for example risk of technical failure, that could have negative effects on the financial performance; or barriers related to the unavailability of sources of finance for the project activity? {If yes, these issues cannot be considered barriers and shall be assessed by investment analysis. [Refer to (6.c) above]}	VVM	114	n.a.	OK	OK
d. Were the barriers determined as real by:	VVM	115	n.a.	OK	OK



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i. assessing the available evidence and/or undertaking interviews with relevant individuals (including members of industry associations, government officials or local experts if necessary) to determine whether the barriers listed in the PDD exist?	VVM	115	n.a.	OK	OK
ii. ensuring that existence of barriers is substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?	VVM	115	n.a.	OK	OK
iii. Is existence of a barrier substantiated only by the opinions of the project participants? (If yes, this barrier cannot be considered as adequately substantiated)	VVM	115	n.a.	OK	OK
e. Were the barriers determined as preventing the implementation of the project activity but not the implementation of at least one of the possible alternatives by applying local and sectoral expertise to judge whether a barrier or set of barriers would prevent the implementation of the proposed CDM project activity and would not equally prevent implementation of <i>at least one of</i> the possible alternatives, in particular the identified baseline scenario?	VVM	115	n.a.	OK	OK
e. Common practice analysis					
a. Is this a proposed large-scale, or first-of-its kind small-scale project activity?	VVM	117	The project is large scale project not the first of its kind.	OK	OK



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b. If yes, was common practice analysis carried out as a credibility check of the other available evidence used by the project participants to demonstrate additionality?	VVM	117	Yes, common practice analysis has been carried out.	OK	OK
c. Was it assessed whether the geographical scope (e.g. defined region) of the common practice analysis is appropriate for the assessment of common practice related to the project activity's technology or industry type? (For certain technologies the relevant region for assessment will be local and for others it may be transnational/global).	VVM	118	In PDD the information for Caspian sea region has been provided. Since the operation is offshore in all Russia, Kazakhstan, Turkmenistan, Uzbekistan and Azerbaijan the region is found acceptable. It is informed that those countries are still operate oil wells equipped with outdated soviet facilities.		
d. Was a region other than the entire host country chosen?	VVM	118	Transnational region has been identified.	OK	OK
e. If yes, was the explanation why this region is more appropriate assessed?	VVM	118	IT is explained that all Caspian sea region oil platforms are offshore and they are all operate outdated soviet facilities.	OK	OK
f. Using official sources and local and industry expertise, was it determined to what extent similar and operational projects (e.g., using similar technology or practice), other than CDM project activities, have been undertaken in the defined region?	VVM	118	Transnational region has been identified however only Azerbaijan companies which are Socar and BP explained in the PDD. The references have been provided. <u>The corrective action request is closed.</u>	CAR10	OK



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g. Are similar and operational projects, other than CDM project activities, already "widely observed and commonly carried out" in the defined region?	VVM	118	<p>BP and Socar defined in Azerbaijan as an oil production companies. In Socar the similar activity with the project activity is being made in Guneshli Oil field however the project also applied for the CDM Revenues.</p> <p>And For BP it is stated that in company sustainability report -2088 it is stated that a flaring facility at Azeri-Chraq-Guneshli oil field has been installed which is later than the project start date.</p> <p>The report is not available from the link that provided in the PDD. Please provide.</p> <p>Please also refer to CAR10 for Caspian Sea Region.</p> <p>The corrected link is added in PDD - http://www.bp.com/genericarticle.do?categoryId=9029687&contentId=7013491</p> <p>The corrected link has been provided. <u>The clarification request is closed.</u></p>	CL21	OK
h. If yes, was it assessed whether there are essential distinctions between the proposed CDM project activity and the other similar activities?	VVM	118	In the PDD it is defined that there is no similar activities with the project activity.	OK	OK
7. Monitoring plan					
a. Does the PDD include a monitoring plan?	VVM	120	Yes, the PDD include a monitoring plan in section B.7	OK	OK
b. Is this monitoring plan based on the approved monitoring methodology applied to the proposed CDM project activity?	VVM	120	Yes, the monitoring plan based on the approved baseline and monitoring methodology AM0009 Version 4.	OK	OK
c. Were the list of parameters required by the the selected methodology identified?	VVM	121	Yes, the list of the parameters defined which required by the methodology. (Please refer to CAR7) Table 2 – 3.2	OK	OK



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d. Does the monitoring plan contains all necessary parameters?	VVM	121	Yes, the monitoring plan contains all necessary parameters.	OK	OK
e. Are the parameters clearly described?	VVM	121	Yes, the parameters are clearly described.	OK	OK
f. Does the means of monitoring described in the plan comply with the requirements of the methodology?	VVM	121	Yes, the means of the monitoring in the plan is inline with the methodology.	OK	OK
g. Specific questions per methodology regarding parameters.			Please refer to Table2- Section3.	OK	OK
h. Are the monitoring arrangements described in the monitoring plan feasible within the project design?	VVM	121	Yes, the monitoring arrangements described in the monitoring plan are feasible with the project design.	OK	OK
i. Are the following means of implementation of the monitoring plan sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified:	VVM	121			
i. data management procedures?	VVM	121	Data Management methods are clearly described for each data to be measured.	OK	OK
ii. quality assurance procedures?	VVM	121	Quality assurance procedures defined for the parameters in table B.7.1 which will be verified.	OK	OK
iii. quality control procedures?	VVM	121	Quality control procedures defined for the parameters in table B.7.1 which will be verified.	OK	OK
8. Sustainable development					
a. Does the CDM project activity assists Parties not included in Annex I to the Convention in achieving sustainable development?	VVM	124	Through utilization of currently vented associated vented gas which is valuable energy source, the project will contribute sustainable development in Azerbaijan. This is also stated in section A.2 of the PDD.	OK	OK



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b. Does the letter of approval by the DNA of the host Party confirm the contribution of the proposed CDM project activity to the sustainable development of the host Party?	VVM	125	The letter of approval is not available. Please refer to CAR2. CAR closed as the letter is provided.	CAR2	OK
9. Local stakeholder consultation					
a. Were local stakeholders (public, including individuals, groups or communities affected, of likely to be affected, by the proposed CDM project activity or actions leading to the implementation of such an activity) invited by the PPs to comment on the proposed CDM project activity prior to the publication of the PDD on the UNFCCC website?	VVM	126	Yes, local stakeholder consultation has been conducted on 26 th of November 2009. The invitation has been done through public media and webpage of Socar's environmental department.	OK	OK
b. Have comments by local stakeholders that can reasonably be considered relevant for the proposed CDM project activity been invited?	VVM	127	The local stakeholders been invited to the meeting and the list of the attendance has been given in section E.1 of the PDD.	OK	OK
c. Is the summary of the comments received as provided in the PDD complete?	VVM	127	Yes, the summary of the comments has been provided in section E.2 of the PDD.	OK	OK
d. Have the project participants taken due account of any comments received and described this process in the PDD?	VVM	127	The questions have been answered during the consultation. No comments received to be taken due account for the project activity.	OK	OK
10. Environmental impacts					
a. Have the project participants submitted documentation on the analysis of the environmental impacts of the project activity?	VVM	129	Yes, the project participant submitted documentation on the analysis of the environmental impacts.	OK	OK
b. Have the project participants undertaken an analysis of environmental impacts?	VVM	130	Regarding to the environmental checklist that has been done by the pp it is concluded that the project has no negative environmental impacts.	OK	OK
c. Does the host Party require an environmental impact assessment?	VVM	130	Yes, the EIA is requires by the host party and it was made available to DOE.	OK	OK



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d. If yes, have the project participants undertaken an environmental impact assessment?	VVM	130	Yes, regarding to the environmental impact assessment and environmental checklist that has been done by PP the project has no negative impact.	OK	OK
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Table 2 Compliance of the PDD [1] with the approved Baseline and Monitoring Methodology: AM0009 / Version 04 “Recovery and utilisation of gas from oil wells that would otherwise be flared or vented” [2]

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1 SOURCE, DEFINITIONS AND APPLICABILITY					
1.1 Sources					
1.1.1 Are the methodologies or tools which the above approved methodology draws upon and their version number referred?	1,2	DR	<p>The four tools which the approved methodology draws upon are referred with indication of their version number.</p> <p>CL4.</p> <p>1/ The two methodologies which the approved methodology draws upon are not indicated.</p> <p>2/ “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion project emissions from flaring gases containing methane” is erroneously identified as Version 2 though it is Version 02.</p> <p>3/ “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” is erroneously identified as Version 1 though it is Version 01.</p> <p>The missing references are included without flaws.</p> <p><u>CAR is closed based on due additions made to PDD.</u></p>	CL4	OK
1.2 Definitions					
1.2.1 Are the indicated definitions applied throughout the	1,2	DR	They are generally applied. Associated gas	OK	OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
PDD?			(definition from AM0009) is referred in PDD as associated petroleum gas (APG) as well.		
1.3 Applicability					
1.3.1 Are the methodology applicability conditions applicable to the project activity?	1,2	DR	<p>Yes, all the applicability conditions as defined in AM0009 are applicable to the project activity except for the following optional condition: flaring of the associated gas and/or lift-gas under the baseline scenario.</p> <p>CAR6. The applicability condition of AM0009 “the recovered gas is consumed on-site to meet energy demands under the project scenario” is not considered in PDD though it is applicable to the project activity.</p> <p>Due additions to the PDD are made on page 10.</p> <p><u>CAR is closed based on due additions made to PDD.</u></p>	CAR6	OK
2 Baseline Methodology Procedure					
2.1 Project boundary					
2.1.1 Does the project boundary conform to its description in AM0009?	1,2	DR	<p>Yes, it does except for the scenarios with flaring of associated gas and/or gas-lift. Refer to PDD Figure B.3.1.</p> <p>CL2. Two different abbreviations are used for the compressor: NQK and NGK (refer to Section A.4.3. It is unclear if this is the compressor 10GCNAM/25/50 mentioned in</p>	CL2	OK

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			PDD Section B.6.3. – IT will be nqk Abbreviation NGK is deleted from PDD. <u>CAR is closed based on due corrections made to PDD.</u>		
2.1.2 Are the emission sources included or excluded from the project boundary listed?	1,2	DR	Yes, all the relevant emission sources included or excluded are listed in the table of the format used in AM0009.	OK	OK
2.2 Identification of the baseline scenario and demonstration of additionality					
2.2.1 Is the four-step procedure described in AM0009 applied?	1,2, 3	DR	Yes, it is applied in full with the use of the latest approved version of the “Tool for the demonstration and assessment of additionality” [3] for steps 3 and 4.	OK	OK
2.2.2 Are all plausible alternative scenarios under AM0009 for indicated components from three clusters G, P, and O listed?	1,2	DR	Yes, all plausible alternative scenarios under AM0009 for all the indicated components from three clusters G, P, and O are listed. Refer to Step 1.	OK	OK
2.2.3 Are realistic combinations of these components are identified and are they considered as possible alternative scenarios to the proposed project activity?	1,2	DR	Yes, all realistic combinations of the components from the three clusters are identified and considered as possible alternatives to the proposed project activity (2 components from cluster G, 2 from cluster P. and 1 cluster from O). They are listed in Table B.4.1. These combinations were further combined and formed two baseline Alternatives: 1 - “continuation of the current practice” and 2 - “the project activity without	OK	OK



CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			being registered as CDM project". Refer to Step 1.		
2.2.4 Are the legal aspects of the identified baseline alternatives evaluated and are the alternatives in compliance with mandatory applicable legal and regulatory requirements?	1,2	DR	Yes the identified realistic and credible alternatives are thoroughly evaluated and shown to be in compliance with mandatory applicable legal and regulatory requirements. Refer to Step 2.	CL19	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.2.5 Is economic attractiveness of the alternatives calculated following the guidance for the investment analysis in the latest approved version of the "Tool for the demonstration and assessment additionality" [3]?	1,2,3	DR	The investment analysis which included the investment comparison analysis (it is erroneously referred "benchmark" analysis) and sensitivity analysis have been carried out following the guidance in the "Tool for the demonstration and assessment additionality" (Version 05.2) [3]. It is shown that the project activity without CDM registration is not most economically and financially attractive.		OK
2.2.6 Are calculations described and documented transparently?	1,2,3	DR	<p>The investment analysis is described in PDD Section B.4 under Step 3. Input data for the analyses are provided. An excel spreadsheet with the results of the benchmark analysis is included in Annex 6.</p> <p>CAR 09.</p> <p>1/ The exchange rate of AZN in Euro is not provided what does not allow a reader to check the calculation results. (L.Y. year of investment decision date)</p> <p>2/ The spreadsheet indicates operational revenues for 2008 and 2009 though the values of the recovered gas in these years are not provided. This does not allow a reader to reproduce the analysis and obtain the same results. (L.Y)</p> <p>3/ Sensitivity analysis does not include variations of the investment cost and electricity tariff. (electricity tariff is included in the production cost. So the production cost</p>	CAR9	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<p>can be included to the sensitivity analysis)</p> <p>4/ The investment analysis appears to have been implemented for no-inflation scenario. Please justify the applicability of the interest rate 12% as a hurdle rate 12% for such scenario.</p> <p>/ The exchange rate is provided in the Excel-spreadsheets (delivered to the validator prior to the onsite visit). The exchange rate is added in the text of PDD</p> <p>2/ Excel-spreadsheet contains both information on operational revenues and quantities of gas produced (Sheet 4_Parameters SOCAR). Additional gas production table is added in Annex 3 of PDD.</p> <p>3/ Variations of investment costs and gas production costs (the production costs include the costs of the electricity used by the compressors) are added in the sensitivity analysis.</p> <p>4/ According to the best practices of the investment analysis inflation is neglected when preparing the cash flow. Normally it is assumed that inflation influences both revenues and expenses to the same extend. Furthermore, there is no request to consider inflation according to the Guidance on the</p>		

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Assessment of Investment Analysis (Combined tool to identify the baseline scenario and demonstrate additionality, ver. 02.2) Justification for 12% is provided in Table B.4.2.		
2.2.7 Is the common practice analysis carried out?	1,2, 3	DR	The common practice analysis has been carried out following the guidance in the "Tool for the demonstration and assessment of additionality" (Version 05.2). No evidence could be found for project activities similar to the proposed CDM project. Refer to PDD Section B.4 Step 4.	OK	OK

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2.3 Baseline emissions					
2.3.1	Are the baseline emissions calculated by Formula (1) from AM0009?	1,2	DR	Please refer to the same Formula (1) in PDD Section B.6.1.	OK OK
2.4 Project emissions					
2.4.1	Are the project emissions calculated by Formula (2) from AM0009?	1,2	DR	Please refer to the same Formula (2) in PDD Section B.6.1.	OK OK
2.4.2	Are the project emissions from the combustion of fossil fuel calculated applying the latest approved version of the "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion"?	1,2,4	DR	Yes, the project emissions from the combustion of fossil fuel are calculated applying the latest approved version 02 of the "Tool to calculate project or leakage CO2 emissions from fossil fuel combustion" [4]. Refer to Formula (6) in PDD Section B.6.1.	OK
2.4.3	Are the project emissions from the consumption of electricity calculated applying the latest approved version of the "Tool to calculate baseline, project and/or leakage emissions from electricity consumption"?	1,2,5	DR	Yes, the project emissions from the consumption of electricity are calculated applying the latest approved version 01 of the "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" [5]. Refer to Formula (4) in PDD Section B.6.1. Scenario B from the above tool, that is electricity consumption from an off-grid fossil fired captive power plant, applies to the project activity.	OK
2.5 Leakage					
2.5.1	Are leakage emissions neglected?	1,2,3	DR	No leakage emissions are considered in line with AM0009.	OK
2.6 Emissions reduction					
2.6.1	Are the emission reductions calculated by Formula (3) from AM0009?	1,2	DR	Please refer to the same Formula (5) in PDD Section B.6.1	OK

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2.7 Data and parameters not monitored					
2.7.1	Is CO2 emission factor for methane 49.55 tCO2/TJ included in the list of data and parameters not monitored?	1,2	DR	Please refer to Parameter 1 in SPDD Section B.6.2.	OK
3 Monitoring Methodology					
3.1	Does CDM-PDD include minimal procedures to ensure that the data collection and retention will be made properly?	1,2	DR	Please refer to the description of the monitoring plan in PDD Section B.7.2.	OK
3.2	Are data and parameters indicated in AM0009, that is volume and net caloric value of the recovered gas, monitored?	1,2	DR	<p>Please refer to the full list of “data and parameters monitored” in PDD Section B.7.1 which includes the two parameters specifically indicated in AM0009. Please refer to parameters 6 and 7 in PDD Section B.7.1.</p> <p>CAR7. The list of “data and parameters monitored” in PDD Section B.7.1 includes data and parameters (numbers 1-5) that are not monitored throughout the crediting period but that are determined only once and thus remain fixed throughout the crediting period AND that are available when validation is undertaken. They should be listed in section B.6.2.</p> <p>Review3 The clarification found acceptable. The corrective action request is closed.</p>	CAR7 OK
3.3	Are the data and parameters monitored presented in the tabular format as per AM0009?	1,2,6	DR	The tabular format from AM0009 is not followed. Superiority of the “Guidelines for completing CDM-PDD” [6] applies.	OK

Table 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to check list question in table 1 and 2	Summary of project owner response	Validation team conclusion
<p>CAR1- <i>The participation of the project participant has not been approved by a Party to the KP.</i></p> <p>CAR1 – 2.f - There are no other entities from SOCAR and GazProm included to the section A.3 and Annex 1 of the PDD. However the approval of the SOCAR and GazProm are also missing.</p>	<p>Section 1 –</p> <p>2.b –</p> <p>2.f –</p> <p>2.g –</p> <p>2.h –</p> <p>2.i</p>	<p>SOCAR has applied for a Letter of Approval to the DNA of Azerbaijan. The application letter is submitted to the validator. Letter of Approval issued by Azerbaijan DNA has been submitted to BV.</p> <p>Issuance of a Letter of Approval by Germany requires submission of the (draft) validation report. GAZPROM Germania approached the German Focal Point and received a respond that submission of a validation report is a precondition for issuance of LoA in Germany.</p>	<p><u>Review2</u></p> <p>The DNA approvals for both parties are not provided. The corrective action request is still open.</p> <p>Review3:</p> <p>LoA from German DNA has been released, dd.28/11/2012, reference # E1.6-18410-0436</p> <p>CAR closed.</p>

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CAR2- The participation is not approved from any of the parties that involved either in a letter of approval or in a separate letter specifically to approve participation.	2.e	See the above comment (CAR 1) Letter of Approval issued by Azerbaijan DNA has been submitted to BV.	<u>Review2</u> Participation is not approved. The corrective action request is still open. <u>Review3</u> Letter of approval has been send to DOE. <u>The corrective action request is closed.</u>
CL1- CDM PDD version: 1.01 Date: 30.10.2009 Please clarify the date of the document.	3.c.ii	As further changes have been done in the project design document based on requests of the Validation Protocol the date and the version of the document are changed accordingly.	<u>Review2</u> The version number and date is corrected as 1.02 dd.04.10.2010 <u>The clarification request is closed.</u>
CAR3- Section A.2 is more than 1 page. Please amend.	3.d	Amended accordingly.	<u>Review2</u> Section A.2 corrected as one page. <u>The corrective action request is closed.</u>

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<p>CAR4- A detailed physical location of the project activity has been provided as collector platforms and connected supplier platforms. However it is seen that the table is not in line with the technical documentation seen during site visit.</p> <p>Technical feasibility covers 2192, 1517, 741a and 2346a. Please also provide the feasibilities for 1077, 1005 a , 1799, 810)</p>	3.f.ii	<p>The technical feasibility studies (orders No.10062 and 10139) and the terms of reference for all platforms (2192, 1517, 741a, 2346, 1077, 1005a, 1799, 810) are submitted with this protocol.</p> <p>According to the conversation on 10.03.2011 with BV, this CAR is regarded as closed.</p>	<p><u>Review2</u></p> <p><u>* Connected supplier platforms can not be verified through the provided feasibility Order NO: 10062 and 10139.</u></p> <p><u>The list of collector platforms and supplier platform has been provided by SOCAR in an official letter dated 15.01.2011. This has been taken into consideration in the PDD Version 1.03. The official letter has been sent to the DOE together with the corrected PDD version 1.03.</u></p> <p><u>* Regarding to the feasibility provided for 1005a(in the document collector platform is named as 1201 please also clarify this) document , and during site visit it is confirmed that no measurement is being done number 1077 so the collector included to the number 1005a in version 1.2 of the PDD as agreed during site visit. However supplier platforms number 1183 and 1126 are not provided in the PDD rev.1.2. Please clarify.</u></p> <p><u>It was communicated by SOCAR to GFA that there are 2 collector platforms included in the project at the Palchiq Pilpilassi oil field and we (GFA) have presumed that these were 1005a and 10777 (incl. In the pDD ver. 1). However, upon the receipt of the official letter with the list of collector and supplier platforms it is clear that 1077 is connected to 1005a, which is one of the 2 collector platform at the Palchiq Pilpilassi oil field. The second collector platform at Palchiq Pilpilassi oil field is 1201, with 1183 and 1126 being supplier platforms to 1201.</u></p> <p><u>Review:</u></p> <p><u>CAR is closed as the information on PDD v.1.08 has been validated.</u></p>
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<p>CL2- Two different abbreviations are used for the compressor: NQK and NGK (refer to Section A.4.3. It is unclear if this is the compressor 10GCNAM/25/50 mentioned in PDD Section B.6.3</p> <p>The compressors defined as NQK and NGK please correct them as its original.</p>	3.h.iii	<p>Two types of compressors are used in the project:</p> <ul style="list-style-type: none"> • NQK-7/1-5 (transportation of gas from platforms to the central hub of the oil and gas production department) • 10GCNAM 2/5-55 (transportation of gas from the central hub to the on-shore gas processing plant) <p>Technical specifications of both compressor types were made available to the validator during the onsite visit. Required corrections in the project document are made.</p>	<p><u>Review2</u></p> <p>Abbreviation NGK is deleted from PDD.</p> <p><u>CAR is closed based on due corrections made to PDD.</u></p>
<p>CAR5- During site visit it is verified that the quantity of gas that used for gas-lift gas can be monitored (ROC). However same ROC system calculates also emissions from collector 2182. Please clearly explain 2182 will not be added to the monitoring plan since it was the pilot compressor and not in the project boundary. Please correct the compressor numbers and collector platforms since during site visit it is seen that the information is not inline with the Table A.4.3.1</p>	3.h.iii	<p>ROC stands for Remote Operation Controllers, which is remote automation system collecting information from individual flow meters, recalculating parameters for reporting (e.g. based on pressure and temperature of gas, recalculation in normal cubic meters) and sending information to the central computer system. ROC is not a metering device. Data delivered to ROC from individual flow meters installed at different platforms, and is reported to the central computer separately. Information amended in A.4.3.</p>	<p><u>Review2</u></p> <p>The explanation found acceptable. <u>The corrective action request is closed.</u></p>

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<p>CL3- The emission sources and GHG's involved are not stated in section A.4.3 of the PDD.</p>	<p>3.h.iv</p>	<p>Amended accordingly. The sentence deleted accordingly.</p>	<p><u>Review2</u> In the PDD Section A.4.3 it is stated as following and accepted by the validation team. “In this case, according to the applied baseline methodology AM0009 version 04 emission sources include combustion of fossil fuels at end-users that are produced from non-associated gas or other fossil sources. The main source of emissions in the baseline is CO₂, while CH₄ and N₂O are neglected for conservancy reasons. According to the selected baseline methodology (described in detail in B.4.) the sources of GHG emissions include combustion of fossil fuels at end-users that are produced from non-associated gas or other fossil fuels.” Please delete the repeated sentence above. <u>Review3</u> <u>The clarification request is closed.</u></p>
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VALIDATION REPORT

<p>CL4- The tools that referred by the approved methodology has been listed however it is not clear if the following tools are draw upon for the project activity.</p> <ul style="list-style-type: none"> - “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 2.2) ; - “Tool for the demonstration and assessment of additionality” (Version 05.2). <p>2/ “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion project emissions from flaring gases containing methane” is erroneously identified as Version 2 though it is Version 02.</p> <p>3/ “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” is erroneously identified as Version 1 though it is Version 01.</p>	3.k.ii	Amended accordingly.	<p><u>Review2</u></p> <p>The missing references are included without flaws.</p> <p><u>CAR is closed based on due additions made to PDD.</u></p>
<p>CL5- No reference has been identified to justify the applicability conditions of the methodology.</p>	3.l.ii	<p>References added.</p> <p>The request and the comment are unclear? What evidence or further information is required?</p>	<p><u>Review2</u></p> <p>The needed references has been indicated in the PDD however related section for transportation of gas without prior processing is not indicated in the provided feasibility for the applicability condition.</p> <p><u>Review3</u></p> <p><u>There is no prior processing regarding to the feasibility. The clarification request is closed.</u></p>

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<p>CAR6- The choice of the methodology justified by showing that project activity meets the applicability conditions.</p> <p>Except for the following optional condition: flaring of the associated gas and/or lift-gas under the baseline scenario.</p> <p>The applicability condition of AM0009 “the recovered gas is consumed on-site to meet energy demands under the project scenario” is not considered in PDD though it is applicable to the project activity.</p>	3.l.i	Amended accordingly.	<p><u>Review2</u></p> <p>Due additions to the PDD are made on page 10.</p> <p><u>CAR is closed based on due additions made to PDD.</u></p>
<p>CL6- A flow diagram has been presented in section B.3. In the PDD only points F and C are shown in the diagram, please also show point A for the monitoring of project emissions as per the methodology.</p>	3.m.ii	<p>Figure 2 of the AM0009 ver.04 shows a schematic illustration of the project activity, not the exact structure of projects eligible for using this methodology. Therefore, Figure B.3.1. of the PDD presents the project specific structure. In case of the proposed CDM project monitoring points F and A are identical, therefore it is decided no leave only one indication F, in order to avoid confusion. For the same reason the structure has no monitoring points C, D1 and D2.</p> <p>There is no necessity to adapt all possible indications from indicative illustration to the AM0009 Ver. 04, unless they are relevant to the proposed project.</p>	<p><u>Review2</u></p> <p>The explanation found acceptable, the monitoring points indicated with F for baseline emissions and C for project emissions. <u>The clarification request is closed.</u></p>

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CL7- TDX has been defined in section B.6.2 please clarify the ref. tool for the parameter.	3.q.i	When determining $TDL_{i,y}$ there is a clear reference to the Tool to calculate baseline, project and/or leakage emissions from electricity consumption, Version 01, and to the applied scenario B. There is no parameter TDX in the PDD.	<u>Review2</u> The explanation about TDL is appropriate. For finding Tx please refer to CAR7. <u>The clarification request is closed.</u>
CL8- The source data has been identified but please also include the reference tool in accordance with the methodology.	3.q.iii	Information is amended as requested.	<u>Review2</u> The reference tools for the monitoring parameters have been included. <u>The clarification request is closed.</u>
CL9- The reference documentation for the assumptions that listed in B.6.2 is not submitted. (tx)	3.q.v	For parameters $EF_{CO2, methane}$, & $TDL_{i,y}$, documentation is available (AM0009, ver.04, the tool) No reference is applicable to parameter T_x . For parameters k and P_j technical specifications of compressors (electricity and fuel consumption sources) are made available to the validator.	<u>Review2</u> For finding Tx please refer to CAR7. <u>The clarification request is closed.</u>
CL10 - There is no additional files in Annex 3 or spreadsheets.	3.r.iii	All relevant spreadsheets have been delivered to the validator prior to the onsite visit. For clarification of the basis for calculation of baseline emissions an additional table is added indicating quantity of gas to be collected from individual platforms. An official letter by SOCAR confirming presented gas production quantity is made available to the validator.	<u>Review2</u> The needed information for baseline calculation has been provided. <u>The clarification request is closed.</u>

VALIDATION REPORT

<p>CAR7- Please refers to the full list of “data and parameters monitored” in PDD Section B.7.1 which includes the two parameters specifically indicated in AM0009. Please refer to parameters 6 and 7 in PDD Section B.7.1.</p> <p>The list of “data and parameters monitored” in PDD Section B.7.1 includes data and parameters (numbers 1-5) that are not monitored throughout the crediting period but that are determined only once and thus remain fixed throughout the crediting period AND that are available when validation is undertaken. They should be listed in section B.6.2.</p> <p>T has been identified as the monitoring parameter however it is not defined in the equations in the PDD. Also this parameter is not defined in the approved methodology.</p>		<p>The parameter T is used when determining the quantity of electricity consumed by the project electricity consumption source j in year y (ECP_{j,y}) under the Tool to calculate baseline, project and/or leakage emissions from electricity consumption, Version 01.</p> <p>The parameter is presented in Table B.6.3.3., where ex-ante quantity of electricity consumed is determined. Furthermore this parameter is used in the spreadsheets submitted to the validator and used by the project participants for monitoring purposes (calculation of the project emissions).</p> <p>4 turbines x 12 MW x 8,760 hours = 420,480 MWh/year</p> <p>NOT 42,048 MWh</p> <p>The figure 89,422 MWh is a historical value from 2008, whereas 420,480 MWh is the maximal potential generation which is never achieved. The value 89,422 MWh is used for the calculation of project emissions due to consumption of electricity as presented in the sheet ‘MethTools’ in the Emission calculation Excel file.</p>	<p><u>Review2</u></p> <p>Conclusion on Response 1</p> <p>Parameters 6 and 7 are included in PDD Section B.7.1. Response is accepted.</p> <p>Parameters 1-5 are included in Section B.6.2. Response is accepted.</p> <p>The use of parameter T is explained on pages 28 (cf. footnote 5) and 40 (cf. parameter 9). Response is accepted.</p> <p>Additional finding: Parameter 13 (PDD Page 42) Quantity of electricity generated by captive plant is 88 166 MWh. However for the project captive plant with 4 x 12 MW units the maximum electricity generation equals $4 \times 2 \times 8760 = 42\,048$ MWh. Please explain the difference.</p> <p>CAR is not closed.</p> <p>Review3</p> <p>The clarification found acceptable. The corrective action request is closed.</p>
<p>CL11- There is no identification if the person / entity is also project participant in Annex 1.</p>	<p>3.v.iii</p>	<p>Amended accordingly</p>	<p><u>Review2</u></p> <p>It is stated that Gazprom is also a project participant of the project activity. <u>The clarification request is closed.</u></p>

VALIDATION REPORT

CL12- In section C.1.1 it is not stated how the start date has been determined and description of evidence	3.w.ii	Amended accordingly	<u>Review2</u> The start date of the project activity defined as the date when the contract signed for construction and installation. <u>The clarification request is closed.</u>
CL13- 1 March 2010 has been defined. Please provide the date in DD/MM/YYYY according to the guidelines.	3.dd	Amended accordingly	<u>Review2</u> The format of the date has been corrected as 01/03/2010. <u>The clarification request is closed.</u>
CL14- At most 10 years is not stated in the PDD in section C.2.2	3.cc	Amended accordingly	<u>Review2</u> The needed correction has been done in section C.2.2.2. <u>The clarification request is closed.</u>
CL15- Please provide the description that used in the meeting.	3.gg.ii	Amended shortly as a general description is included. Additionally the presentation used in the meeting is made available to the validator. The presentation was sent to BV with the corrected PDD on 4.10.2010, attached repeatedly to this protocol.	<u>Review2</u> The minutes of the meeting has been provided to DOE. The presentation is not available. It is needed to confirm if the project description is transparent which allows the local stakeholders to understand the project activity. The clarification request is still open. <u>Review3</u> The presentation has been submitted. <u>The clarification request is closed.</u>

VALIDATION REPORT

<p>CL16- The sources have been identified for the monitoring parameters however during site visit it is stated that the volume of gas- lift gas is monitored through ROC system but it is not included to the monitoring plan. Please clearly state which equipments or systems will be used for the monitoring.</p>	<p>3.t.ii.a</p>	<p>ROC stands for Remote Operation Controllers, which is remote automation system collecting information from individual flow meters, recalculating parameters for reporting and sending information to the central computer system.</p> <p>Hence, ROC system is not only consolidating the data on the low-pressure gas recovered by the project activity, but also the oil production and gas-lift gas demand and use.</p> <p>ROC is not a metering device.</p> <p>Metering devices used to determine gas quantity are flow meters, these are now also mentioned in A.4.3. and specified in B.7.1.</p> <p>Flow meters are the devices that will be regularly calibrated according to the requirements.</p>	<p><u>Review2</u> ROC system has been identified in the monitoring plan with the metering devices. <u>The clarification request is closed.</u></p>
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VALIDATION REPORT

<p>CAR8- Yes, all plausible alternative scenarios under AM0009 for all the indicated components from three clusters G, P, and O are listed. Refer to Step 1. However G7 and O3 should be corrected since it is not relevant. Please include the schematic diagrams of the identified alternatives in the CDM PDD.</p>	<p>3.n.i – 3.n.ii</p>	<p>Alternatives G7 and O3 are adapted accordingly.</p> <p>It is unclear what diagrams need to be provided, as the baseline and project schemes are presented in Figures A.4.3.1 and B.3.1. respectively.</p> <p>The identified alternatives are described transparently in Table B.4.1. Additional References to the schemes (Figures A.4.3.1 and B.3.1) are added to describe identified Alternatives.</p>	<p><u>Review2</u></p> <p>The needed corrections have been done alternatives G7 and O3. The correction has been accepted.</p> <p>In the methodology Step-1 it is stated that, Realistic combinations of these three components should be identified and considered as possible alternative scenarios to the proposed project activity. The identified combinations should be transparently described and be illustrated in schematic diagrams in the CDM-PDD.</p> <p><u>Review3</u></p> <p>The schematic illustration of the project activity has been referred. <u>The corrective action request is closed.</u></p>
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<p>CL17- The project proponent followed ACM0009 to demonstrate the additionality. Please provide objective evidences for the input values that used in the IRR calculations. (financial feasibility ?)</p>	<p>3.o.i</p>	<p>The references are indicated in the spreadsheets, related sources of data (technical feasibility studies, orders, official correspondence) have been submitted to the validator with the updated PDD.</p> <ol style="list-style-type: none"> 1) Both feasibility studies include collector platforms 2192 & 2346, accordingly the investment analysis is prepared. There is no double counting, because part of compressors at 2192 & 2346 have been commissioned based on the Order 10062 (15.07.2008 & 27.04.2009), and some based on Order 10139 later (18.08.2009, 29.11.2009 & 01.09.2009). The evidence for compressors commissioning is submitted to BV. 2) A copy of the contract dated 16 September 2008 has been provided by SOCAR confirming the compressor price of 51,040.9 manat. The copy of the contract is sent to DOE with PDD version 1.03. 3) Changed accordingly to more conservative value 300 manat. 4) The gas volume has been taken not from the feasibility studies (ex-ante estimation), but from the ex-post measurements (documented evidence is submitted to BV), because the operational expenses, operational and carbon revenues are based on actual gas quantities. The capital expenses are not changing due to gas quantity, because these costs are connected to a number of compressors installed. 	<p><u>Review2</u></p> <p>Input values have been checked from the feasibility that provided with the updated version of PDD. Please also clarify,</p> <p>* 2192 and 2346 are stated in both feasibilities (10139-10062) and the tables in the investment analysis. Please clarify. They should not be same values for different 2 input values.</p> <p>Review3</p> <p>The clarification found acceptable.</p> <p>Review2</p> <p>* Please provide evidence that the letter from the Azneft for the prices are from the investment decision date.</p> <p>Review3</p> <p>The clarification request is closed.</p> <p>Review2</p> <p>*For costs of gas quantity analysis it is defined in the Azneft that 300-330 manat but it is stated as 330 manat in the investment analysis. Please clarify if it is line with the conservativeness principle.</p> <p>Review3</p> <p>The clarification request is closed.</p> <p>Review2</p> <p>*Please clarify if the expected collecting volume of gas is used from the feasibility for the investment analysis.</p> <p>Review3</p> <p>The clarification request is closed.</p>
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VALIDATION REPORT

<p>CAR9- 1/ The exchange rate of AZN in Euro is not provided what does not allow a reader to check the calculation results.</p> <p>2/ The spreadsheet indicates operational revenues for 2008 and 2009 though the values of the recovered gas in these years are not provided. This does not allow a reader to reproduce the analysis and obtain the same results.</p> <p>3/ Sensitivity analysis does not include variations of the investment cost and electricity tariff.</p> <p>4/ The investment analysis appears to have been implemented for no-inflation scenario. Please justify the applicability of the interest rate 12% as a hurdle rate 12% for such scenario.</p>	3.o.i	<p>1/ The exchange rate is provided in the Excel-spreadsheets (delivered to the validator prior to the onsite visit). The exchange rate is added in the text of PDD</p> <p>2/ Excel-spreadsheet contains both information on operational revenues and quantities of gas produced (Sheet 4_Parameters SOCAR). Additional gas production table is added in Annex 3 of PDD.</p> <p>3/ Variations of investment costs and gas production costs (the production costs include the costs of the electricity used by the compressors) are added in the sensitivity analysis.</p> <p>4/ According to the best practices of the investment analysis inflation is neglected when preparing the cash flow. Normally it is assumed that inflation influences both revenues and expenses to the same extend. Furthermore, there is no request to consider inflation according to the Guidance on the Assessment of Investment Analysis (Combined tool to identify the baseline scenario and demonstrate additionality, ver. 02.2)</p> <p>Justification for 12% is provided in Table B.4.2.</p>	<p><u>Review2</u></p> <p><u>Conclusion on Response 1</u></p> <p><u>CAR is closed</u> based on due corrections/clarifications as to 1/-4/.</p>
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VALIDATION REPORT

<p>CL18- All relevant methodological choices/scenarios are explained under section B.6.1 of the PDD version 01.1. The formulas that will be used in the calculations are also given in detail under this section.</p> <p>For the calculation of Project CO₂ emissions from fossil fuel combustion, please also include how COEF_{i,y} will be calculated and include the related formula for COEF_{i,y}.</p> <p>For the calculation of the project CO₂ emissions due to electricity consumption, please clearly identify which scenario applies to project activity, please clearly identify how the formula used is selected as the tool suggests different formulas for various scenarios. Please also explain how the emission factor for electricity is determined according to the tool.</p>	3.r.ii	<p>COEF_{i,y} is calculated according to the formula (6)</p> <p>Same parameter is used in calculations according to:</p> <ul style="list-style-type: none"> 4 Tool to calculate baseline, project and/or leakage emissions from electricity consumption, Version 01 5 Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion, Version 02. <p>This due to the fact that the same gas is used for generation of electricity onsite and for powering the central compressors.</p> <p>Scenario B is indicated appropriately (see text below Table B.6.3.3.). For off-grid power plants only one set of formulae is acceptable under the tool (these are used in PDD for calculation), all explanations are given in the Tool. The emission factor is determined according to the tool and using the formula (9) of the PDD. COEF_{i,y} is calculated as mentioned above. NCV of gas is measured.</p>	<p><u>Review2</u></p> <p>The explanation about the applying of the equations found acceptable. <u>The clarification request is closed.</u></p>
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VALIDATION REPORT

<p>CL19- There is no proof in the PDD showing that the project is in line with the relevant legislation in the host country. Please give detailed information about the relevant legislation in the host country and send objective evidences (i.e. legal permits) how the project activity is in line with the relevant legislation.</p>		<p>All relevant legal aspects and references to the documents are presented in Step 2 of Section B.4.</p> <p>The project is under development at the existing oil production facility, which requires no additional governmental permits for modification and modernisation of the low-pressure gas treatment system.</p> <p>There is a hard and soft copy letter confirming that SOCAR required no special technical permits for project implementation, as the activities were implemented on the existing and operating OGD.</p>	<p><u>Review2</u></p> <p>All relevant laws are explained in section B.4 and it is stated that project is not prohibited by law and can be implemented in accordance with all applicable legal and regulatory requirements.</p> <p>However there is no approval or permit provided about the implementation of the project activity.</p> <p><u>Review3</u></p> <p>Permit letter for the implementation of the project has been provided.</p> <p><u>The clarification request is closed.</u></p>
<p>CAR10 - Transnational region has been identified for common practice analysis however only Azerbaijan companies which are Socar and BP explained in the PDD.</p>	<p>Table 1 – 6.e.f</p>	<p>Amended as requested.</p> <p>The changes in the PDD have been done in track change mode.</p> <p>Comment to Review 3: The references have been included in the PDD in the track change mode.</p>	<p>Please clarify the changes in the PDD for the common practice analysis. Please do all changes with the track change.</p> <p>Review3</p> <p>Please provide objective evidences and references for the provided information.</p> <p>Review4</p> <p>The references have been provided. <u>The corrective action request is closed.</u></p>

VALIDATION REPORT

CL21- BP and Socar defined in Azerbaijan as an oil production companies. In Socar the similar activity with the project activity is being made in Guneshli Oil field however the project also applied for the CDM Revenues. And For BP, in company sustainability report - 2008 it is stated that a flaring facility at Azeri-Chraq - Guneshli oil field has been installed which is later than the project start's date. The report is not available from the link that provided in the PDD. Please provide. Please also refer to CAR10 for Caspian Sea Region.	Table 1 – 6.e.g	Re: Guneshli Project by SOCAR - According to the "Tool for the assessment and demonstration of additionality" version 05.2 other CDM project activities are not to be included in the common practice analysis. The corrected link is added in PDD - http://www.bp.com/genericarticle.do?categoryId=9029687&contentId=7013491	The corrected link has been provided. <u>The clarification request is closed.</u>
CL22- It is stated that the operational life time of the project is 15 years and the analysis period is taken as 10 years but the fair value is not taken into consideration. Please take the fair value as a cash inflow at the end of assesment period.	Table 1- 6.c.2	The period of the investment analysis has been changed from 10 to 15 years, based on the operational lifetime of the project (15 years).	The correction has been accepted. Investment Analysis has been done for 15 years. <u>The clarification request is closed.</u>
CL23 Please give information if the capital expenses in 2013 is due to the major maintenance and rehabilitation costs.		Because major maintenance and rehabilitation costs are expected to be incurred during the period of assessment these costs are included in years 2013 and 2018 (25% of capital costs every 5 years). The required frequency of major maintenance varies, but generally in oil production industry is every four years. Our assumption is more conservative.	The clarification found acceptable and <u>the clarification request is closed.</u>

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<p>CL24</p> <p>There is no depreciation application. Please include the depreciation in the analysis.</p>	<p>According to the Combined tool to identify the baseline scenario and demonstrate additionality (Version 02.2)</p> <p><i>Depreciation is not an actual expense incurred by the company and as such does not directly affect the financial viability of the project. To treat both the capital cost of the assets and their depreciation as an expense to the project would be a double counting of this cost.</i></p> <p>Therefore depreciation is not included in the analysis, which is correct according to the above statement!</p> <p>The depreciation has been included for the NQK compressors, gas pipelines and meters using 4 years depreciation period according to the Azerbaijan standards. Depreciation has also been applied to the maintenance intervals. http://en.wikipedia.org/wiki/Taxation_in_Azerbaijan. Please see the Investment analysis excel file.</p> <p>Comment to Review 3:</p> <p>In the version 1.04. of the PDD the depreciation has never been deducted from the income, it was just deducted for calculating the taxes. In the version of PDD 1.05 we have introduced a new line in the cash flow so that it is more visible that depreciation is included in the net profit.</p> <p>Review4</p> <p>The correction has been found acceptable. The clarification request is closed.</p>	<p>Review2</p> <p>Depreciation itself is not a cash impact on the project but it would have an indirect impact on the cash flow because it would decrease the financial profit base (since it is an expense item in the profit loss table) so it decreases the income taxes. At the end applying the depreciation would have a positive impact on the IRR results.</p> <p>So, please apply depreciation to the assets considering with the depreciation periods in line with the accounting principles. Please, also add the fair value of assets (asset purchase value – total depreciated amount) as a cash inflow at the end of assessment period.</p> <p>Not closed</p> <p>Review3</p> <p>Depreciation is calculated correctly and it has impact on the tax paid. However, after the tax payment depreciation should be added back to the net profit to obtain the cash flow. Please add back the depreciation items.</p> <p>Not closed.</p> <p>Review4</p>
		<p>The correction has been found acceptable. The clarification request is closed.</p>

VALIDATION REPORT

<p>CL25</p> <p>In sheet "4_Parameters SOCAR" for the discount rate term there is a statement of "Central Bank of Azerbaijan". Please explain what does it refer to? Please give information if it is a publicly available information and documented clearly. Please give a reference for the information.</p>	<p>Per definition the discount rate is an interest rate a central bank charges depository institutions that borrow reserves from it. Reference added in the table: http://www.cbar.az/infoblocks/corridor_percent</p> <p>As discussed per email and telephone, the CAPM analysis hasn't been done for none of the CDM projects in Azerbaijan, as well as for none of the projects that went into validation in 2010 developed under AM0009, nor the projects developed under AM0009 and registered in the period 2009 and 2010.</p> <p>In order to define the benchmark in agreement with the DOE, the discount rate from the Central Bank of Azerbaijan was topped with the country risk premium defined by the New York University http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html.</p>	<p>The discount rate of National Bank of Azerbaijan announced is for the short-term financial investments. However, this is an energy investment and the investors would aim higher return compared to the financial investments since there exist sector specific risks. In addition, the analysis is done with € currency and some of the items in the analysis are affected by the € rate. To summarise, please refer to the CAPM analysis to reach the discount rate; in other terms benchmark rate. In CAPM analysis there exist risk free rate (which can be a rate which central bank announced) and country risk premium and beta of the sector so that the figure found represent the sectoral expected return in Azerbaijan.</p> <p>Not closed</p> <p>Review 3</p> <p>To obtain the benchmark rate, country risk premium is added to the risk free rate which is correct. It is the same approach as in CAPM. So, the clarification request is closed.</p>
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VALIDATION REPORT

<p>CL26 The financial figures are cross checked (Exchange rate, tax rate) <i>However Discount rate couldn't be verified.</i></p>	<p>Per definition the discount rate is an interest rate a central bank charges depository institutions that borrow reserves from it. As stated in PDD: "Starting April 2007 the National Bank of Azerbaijan regularly determines an interest rate corridor including a discount rate, a floor and ceiling interest rates. Starting with 12% in 2007 the discount rate grew during 2008 and fell back to 12% by the end of the year. The most conservative discount rate value of 12% is used in calculations of economic indicators." The Reference to the web site of the Central Bank is added in the PDD. Please refer to the explanation above.</p>	<p>Please refer to CL25 above. The clarification is not closed. Review 3 To obtain the benchmark rate, country risk premium is added to the risk free rate. The calculation is acceptable. The clarification request is closed.</p>
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VALIDATION REPORT

<p>CL27</p> <p>PDD</p> <p>Section A.2</p> <p>The product of the processed associated gas and the end user should be described here.</p>		<p>The GPP produces dry natural gas, liquefied gas and 'unstable gasoline'. The related information was included in section A2, page 1.</p> <p>The term Liquefied gas was changed to 'Liquefied Petroleum Gas,</p> <p>The term 'unstable gasoline' as used by SOCAR refers to Natural Gas Condensate. It is unstable, as the share of liquid may vary of time.</p>	<p>Expert's comments:</p> <p>The term "liquefied petroleum gas" is more accurate.</p> <p>Please clarify why gasoline is unstable.</p> <p>Expert's comment</p> <p>The response is accepted.</p> <p>The clarification request is closed..</p>
<p>CL28</p> <p>PDD</p> <p>Section A.2</p> <p>It is stated in A.4.3 that the pressure of the associated gas is (0.8-2 bar). 1bar=1.0197 at. Therefore, it is not consistent. Clarification is required.</p>		<p>The pressure of the associated gas is 0,8-2 bar, the figures provided in section A.2 have been corrected.</p>	<p>The figures have been corrected.</p> <p>The clarification request has been closed.</p>

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CL29 PDD Section A.3 Please further confirm. If the party wished to be considered as PP, the contact information of the party should also be provided in Annex 1.		The information was corrected.	Parties do not wish to be considered as PP. The clarification request is closed.
CL30 PDD Section A. 4.1.4 The exact coordinates of the eight platforms where the proposed project were carried out should be provided.		This is not feasible due to the possibility of war conflict with Armenia the exact coordinates of the eight platforms are classified (the platforms could be selected as potential targets). The detailed map with the position of eight platforms has been provided to the validator during on-site visit.	Expert's comments: OK
CAR ADDITIONAL (Expert LY) PDD Section A.4.2 Category of the project activity is not indicated. Sectoral scope is not the category.		The category was indicated on page 6f. The corresponding category is: (10) Fugitive emissions from fuels"	Pending. Expert's comment The response is accepted. The clarification request is closed.

VALIDATION REPORT

<p>CL31</p> <p>PDD</p> <p>Section A.4.3</p> <p>The key technical parameter of the compressors and the pipeline system should be specified.</p>	<p>Details of the compressors and the pipeline are provided in Section A.4.3, page 7. Further details of the pipeline are given in the Table A.4.3.2.</p> <p>Ad 1.</p> <ul style="list-style-type: none"> ▪ NQK: The lifetime, load factor and efficiency were included in the description of the NQK compressor, page 7. ▪ 10GCNAM: The lifetime, efficiency and load factor of 10GCNAM compressors were included in the description of 10GCNAM, page 9. <p>Ad 2. A graph indicating the location of the Flo Boss metering devices was included (Figure A4.3.2, page 10).</p> <p>Ad 3. A description of project- and baseline emissions sources and GHGs involved was included in Section A4.3, page 12.</p>	<p>Expert's comments:</p> <ol style="list-style-type: none"> 1) Please include in the description information about the average lifetime of the gas compressors based on manufacturer's specifications and industry standards, load factors, and efficiencies. 2) Also the location of the flow meter FloBoss-107 should be indicated. 3) Please also explicitly indicate in Section A.4.3 the emissions sources and the greenhouse gases involved in the project activity, according to the methodology used <p>Refer to GUIDELINES FOR COMPLETING THE PROJECT DESIGN DOCUMENT (CDM-PDD).</p> <p>Expert's comment</p> <p>The response is accepted.</p> <p>The clarification request is closed.</p>
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VALIDATION REPORT

<p>CL32</p> <p>PDD</p> <p>Section A.4.3</p> <p>The metering devices are not complete. The metering devices system and the location of each device for the measurement of $V_{F,y}$, $NCV_{RG,F,y}$, $FC_{i,j,y}$, $EC_{PJ,J,y}$, $w_{C,i,y}$, $\rho_{i,y}$, $FC_{n,i,y}$, $EG_{n,y}$ and $NCV_{i,y}$ should be provided.</p>	<p>-The temperature will be metered by Emerson devices.</p> <p>-The NCV is metered externally in a certified laboratory.</p> <p>-FCfossil fuel is not monitored, as a conservative value is applied.</p> <p>-EC electricity will not be metered: The highest possible value was applied. The maximum value of ECElectricity leads to the conservative estimation of emission reductions. The monitoring methodology specifies other parameters which are fixed ex-ante and which are available at validation. Please refer to section B6.3 for details.</p> <p>The information in the PDD was amended accordingly.</p> <p>The requested additional information was included in the description of the FloBoss metering device, page 9f.</p>	<p>Expert's comments:</p> <p>Please explicitly indicate in Section A.4.3 that FlowBoss-107 is equipped with multi-parametrical sensors for measuring pressure, pressure drop, and temperature.</p> <p>Expert's comment</p> <p>The response is accepted.</p> <p>The clarification request is closed.</p>
<p>CL33</p> <p>PDD</p> <p>Section A.4.3</p> <p>It seemed that the LP APG from the proposed project activity would be mixed with APGs from other sources at the gathering gas pipeline and central compressor station. Then how to guarantee that the gas sent to the onshore</p>	<p>Section A.4.3 was amended to clarify this issue.</p> <p>It proves that SOCAR has no economic interest in using the proposed project's APG for the gas lift. This can be proven by the purchasing agreements between SOCAR and oil field Guineshli.</p> <p>Please note also:</p> <p>The total energy consumption of all</p>	<p>Expert's comments:</p> <p>(1)LP APG is compressed by NQK-7/1-5 to 0,5 MPa and via gas collection pipeline system enters the gathering gas pipeline through which it is transported to the central hub as a mixture with HP APG. In the central hub the gas mixture is mixing with APG from other oil</p>



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<p>processing plant is exclusively the LP APG recovered by the proposed project activity?</p>	<p>compressor stations was accounted for under the project emissions.</p> <p>Ad (1) 10GCNAM is used for compressing the proposed project's APG in order to transport the gas from the central hub to the gas processing plant.</p> <p>This equipment is described under the project scenario as it consumes fossil fuels and the fuel consumption is part of the project emissions. Hence it is included in the description of the project activity and related equipment.</p> <p>Still it shall be noted that the equipment was already installed under the baseline scenario – which is indicated in the PDD.</p> <p>Ad (2) – A graph showing the locations of the FloBoss metering devices was included on page 10.</p> <p>Ad (3) – the PDD now spells FloBoss – 107.</p>	<p>fields. At the central compressor station equipped with compressors SKS-1, KS-3 and KS-4, gas is compressed to 5,5 MPa and is transported to GPP. It is stated in PDD, no additional compressors at the central hub are required for transportation of the recovered gas to GPP. No additional pipeline from the central compressor station to the onshore processing plant need to be constructed.</p> <p>In this connection, WHAT IS THE PURPOSE OF 10GCNAM 2/5-55?</p> <p>(2) Concerning “A flow meter of the type FloBoss – 107 (model ROC – 107) was installed”. There are 8 pipelines transporting LP APG from 8 platforms to the gathering gas pipeline where LP APG is mixing with HP APG.</p> <p>In this connection, where is Floboss – 107 installed? Or are there 8 FloBoss metering stations installed? Measuring of LP APG volume is a critical issue.</p> <p>(3) Please spell correctly FloBoss-107</p>
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VALIDATION REPORT

			Expert's comment The response is accepted. The clarification request is closed.
CL34 PDD Section A.4.3 It should be clarified that the whether the pipelines from the central compressor station to the onshore processing plant need to be constructed.		The construction of new pipelines between the central compressor station and the gas processing plant is not foreseen since an existing one will be used.	Expert's comments: OK
CL35 PDD Section A.4.4 The starting date of the crediting period should be modified.		It has been modified in the PDD.	The starting date of the crediting period has been updated as 01/01/2013 or the registration date whichever is later. The clarification request is closed.

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<p>CL36 PDD Page 19, Sub-Step 2b</p> <p>Low pressure APG or the high pressure APG? According to the description on Page 27 of the PDD (highlighted), it should refer to the high pressure APG. It is also stated that the LP APG after the compression at the central station would exclusively be sent to the onshore processing plant. Then why there is quantity gas reduction?</p>		<p>The information in the PDD was amended</p> <p>The compressors 10GCNAM are powered by low pressure APG. 10GCNAM compressors are operated on APG with a pressure level ranging from 0.313 to 0.323 MPa.</p>	<p>Expert's comments:</p> <p>PP response is incorrect. The term "high" pressure gas is inappropriate. After the recovery LP APG is compressed at the collection platforms in NQK-7/1-5 from 0,8-2 bar (0,08-0,2 MPa) to 0,5 MPa and enters gas gathering pipeline. At the central compressor station it is compressed from 0,45 MPa to 5,5 MPa. NQK-7/1-5 are powered by electricity generated by the existing GTPP which is fuelled by the APG. The combustion of APG in GTPP to power NQK-7/1-5 compressors is a source of the project emissions.</p> <p>Expert's comment</p> <p>The response is accepted.</p> <p>The clarification request is closed.</p>
<p>CL37 PDD Page 21, Sub-Step 2d</p> <p>In the NPV calculation, the operation cost of the</p>		<p>Information was amended in the PDD.</p> <p>The operation costs for the baseline scenario consist of the environmental payments and environmental permit costs which would need to be paid in Alternative 1.</p>	<p>Expert's comment: OK.</p> <p>The operation costs for the baseline scenario are irrelevant to the investment analyss.</p>

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baseline scenario should be justified. NCV of the gas did not defined in the irr parameters.		Clarification on the relevance of the NCV for the pricing is provided in STEP 2.b, page 20	
CL38 PDD Section B.5 It has been more than one and a half years since the PDD preparation. The event happened in this period should be provided here.		The information in table on page 26f was amended accordingly. The project is in validation since May 2010. The revision of the PDD is in process since October 2010.	The validation process has been added to the timeline. The clarification request is closed.
CL39 PDD Page 27 How to guarantee that the compressors 10GCNAM would not work on the associated from other sources as the LP APG are mixed with other APG in the gas gathering line?		Figure A.4.3.3 was included in the PDD (p11). It shows that each central compressor facility has a different purpose. Each of the central compressor facilities operates on the low pressure APG which it compresses. The project gas is compressed at KS-3, KS-3 operates on the low pressure APG stemming from the project activity. Based on this technical setup the gas consumed by KS-3 cannot be mixed with gas from other sources (gas from May 28/Guneshli).	Expert's comment: The PDD should justify that a possibility is excluded that the gas recovered by the project activity is mixed-up somewhere in the gathering gas pipelines: - with the purchased APG for gas-lift operations and partially replaces the purchased APG - with the high-pressure APG from the project oil field and is combusted for purposes other than the project's. Expert's comment The response is accepted. The clarification request is closed.

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<p>CL40 PDD Section B.6.1</p> <p>This method is not conservative. $A < \text{gas consumption} < B$, $C < \text{gas transported} < D$, but it is necessary for the B/D to be the largest value. The data source of this parameter should be further justified.</p>		<p>The previous version of the PDD used letter C to denominate the monitoring point. This was in-consistent with figure 2 in the AM9 itself. This was corrected.</p> <p>Please excuse the confusion! The related emission section of B.6.1 was amended.</p>	<p>Point A defined as gas processing plant regarding to the AM0009. It has been corrected regarding to the methodology. The clarification request is closed.</p>
<p>CL41 PDD Section B.7.1</p> <p>The whole Section B.7.1 should be further improved. Pls refer to the comments in the PDD for details.</p>		<p>The section has been revised and improved, The parameters that should not be monitored are moved to section B.6.2 as suggested.</p>	<p>The parameters which are not required to monitor has been removed to B.6.2. The monitoring equipments have been added. The clarification request is closed.</p>
<p>CL42</p> <p>IRR spreadsheet</p> <p>The depreciation in alternative 2 in the 11th year is 0. Clarification is required.</p> <p>Delivered gas price defined as - 35 euro in the PDD however in the irr excel it is 50 euro/cent. Please clarify.</p>		<p>The initial equipment bough in years 0-2 is subject to depreciation in years 3-6, whereas due to the maintenance need, new costs arise also in year 6 which are subject to depreciation for the years 7-10. In year 11 new investments are needed which are subject to depreciation only in the coming years 12-15, leaving the year 11 without any depreciation costs.</p> <p>Additional information on the determination of</p>	<p>The depreciation calculations are found correct. The clarification request is closed.</p>

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Please clarify how the % shares has been defined in the IRR excel sheet.		the shares was included in the excel sheet.	
<p>CL43</p> <p>According to the description in the PDD, there would be gas-lift gas recovery and utilization under the Project activity. If so, the descriptions regarding the gas-lift gas should be revised in the PDD.</p>		<p>In the project scenario there is no additional recovery of gas for gas lift, the demand and supply of gas for gas lift stays the same within the closed circle of the project and the additional recovered gas is sent to the gas processing plant.</p> <p>A new sub-section was included in A4.3, page 10f, called 'Consideration of the Mixing of APG from Various Sources'. This section shows:</p> <ul style="list-style-type: none"> ▪ That SOCAR currently operates the gas lift physically separated from the project gas ▪ That there is an excess of APG in the gas system. The gas lift demand can be easily met without the project gas ▪ That the proposed project would feature an IRR of -37%, if designed for meeting the gas lift demand. <p>It is concluded that:</p> <ol style="list-style-type: none"> a) the proposed project does not mix the recovered APG with the APG of the gas lift, and b) the proposed project was never 	<p>Expert's comment</p> <p>The PDD should justify that a possibility is excluded that the gas recovered by the project activity is mixed-up somewhere in the gathering gas pipelines:</p> <ul style="list-style-type: none"> - with the purchased APG for gas-lift operations and partially replaces the purchased APG - with the high-pressure APG from the project oil field and is combusted for purposes other than the project's. <p>Expert's comment</p> <p>The response is accepted.</p> <p>The clarification request is closed.</p>

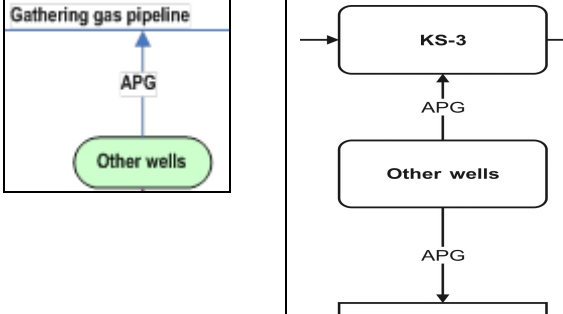
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		designed to meet the gas lift demand. Additionally the description of 3), page 14, Section B2 was revised.	
CL44 It is observed that the project boundary extends beyond point F and includes the compressors NQK and central compressor station (Figure B.3.1). Please refer to the project boundary in AM0009.		<p>The NQKs compress the project gas at the collector platforms consuming electricity provided from the GTPP. Hence NQKs contribute to the project emissions.</p> <p>The 10GCNAMs compress the project gas for the delivery to the GPP consuming low pressure gas. Hence 10GCNAMs contribute to the project emissions.</p> <p>The applied methodology (p3) states that the gas recovery- and transportation infrastructure (including compressors) shall be included into the project boundary, Hence it is the PP's understanding that the project boundary shall extent beyond point F.</p>	<p>Expert's comment</p> <p>The response is accepted.</p> <p>The clarification request is closed..</p>
<p>Additional Note</p> <p>Pls kindly noted that a track-change version PDD and validation report are required for the next round ITR process.</p> <p>Some responses from the PP in table 3 are too simple.</p>		Ok, all changes have been done in track change mode.	<p>There are some PP responses that indicate "Amended accordingly".</p> <p>Please write the response clearly.</p>
<u>Excerpts from PDD (in italic) and areas of DOE concern</u>		<p>The following changes and clarifications were made by the PP:</p> <p>1. The project gas is compressed by KS-</p>	<p>Expert's comment</p> <p>The response is accepted.</p> <p>The clarification request is closed.</p>



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<p>1- PDD; <i>Each OPU and CPF is connected by gathering gas pipelines to the central hub of OGPD. Gas recovered at OPU and CPF is delivered to the central hub, where it is compressed for further on-site utilization. Gas recovered at OPU and CPF is delivered to the central hub, where it is compressed for further on-site utilization.</i></p> <p>DOE:</p> <p>1. Please indicate explicitly in the PDD by which compressor is this gas compressed. According to PDD, for the purpose of gas-lift operations gas is compressed in the compressor facility SKS-1 and KS-4; the gas recovered by the project activity will be transported through the gathering gas pipeline and compressed in the facility KS-3. This is not clear if the gas from OPU and CPF is compressed at the Central Compressor Station consisting of KS1, KS3, and KS4.</p> <p>2- PDD; <i>The associated gas recovered at OPU and CPF has been used for gas-lift operations, combustion in an on-site gas-turbine power plant (GTPP), and for transportation to onshore gas processing facilities.</i></p> <p>DOE:</p> <p>2. Please indicate explicitly in the PDD if this gas is mixed with the project gas and lift gas.</p> <p>3. Please show on Fig.A.4.3.1 that the</p>		<p>3. This information was included in Section A4.3, pages 10-11. Figure A4.3.3 provides details on the technical setup of compressor facilities.</p> <p>2.</p> <p>2.1 The project gas is not mixed with the gas lift. Pls refer to the PP's response to CL43.</p> <p>2.2 This was not included in Figure A4.3.1, but a new and more detailed figure was included (Figure A4.3.3, page 11)</p> <p>3. Pls refer to the PP's response to CL43.</p> <p>4. Pls refer to the PP's response to CL43.</p> <p>5. Pls refer to the PP's response to CL43.</p> <p>6. It is the PP's understanding that this is already shown in Figure A4.3.1. Pls see below detail copied from respective Figure (left old, right new figure).</p>	
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<p>associated gas recovered at OPU and CPF has been used for transportation to onshore gas processing facilities.</p> <p>3 – PDD; <i>Additionally, since 1986 associated gas has been delivered to OGPD Neft Dashlari from neighbouring oil fields including OGPD Guneshli. This gas is inter alia (please explain where else the gas is used) used for gas-lift operations at Neft Dashlari and Palchiq Pilpilassi oil fields. For the purpose of gas-lift operations gas is compressed in the compressor facility SKS-1 and KS-4 and delivered to the gas-lift distribution system, whereof gas goes to individual oil wells. The forecast gas-lift gas demand is covered by current associated gas production at OPU and CPF and by gas deliveries from the neighbouring oil fields. Thus, no other sources of gas-lift gas will be involved in the foreseeable future.</i></p> <p>DOE:</p> <ol style="list-style-type: none"> 1. Please indicate explicitly in the PDD if this gas is mixed with the project gas and gas from OPU and CPF. 2. If yes, please indicate explicitly in the PDD that there exists another source of the lift gas in addition to that under the baseline and with regard to the above, assess the applicability of AM0009 which states: <i>In the case where gas-lift is used under the project activity: the gas-lift gas under the baseline uses the same source as under the project activity and the same quantity as under the project</i> 	<div data-bbox="958 347 1541 678">  </div> <p>7. KS-3 compresses the project gas, gas from the OPU, CPU and other wells of the two project oil fields. The description on page 10 was expanded accordingly.</p> <p>8.</p>	
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<p>activity.</p> <p>3. Fig.A.4.3.1 shows that the same lift gas is used also for lift gas purposes at other oil fields; please indicate this demand explicitly in the PDD and assess the applicability of AM0009.</p> <p>4- PDD; <i>GTPP receives associated gas from the central compressor facilities SKS-1 and KS-4.</i> DOE: 4. Please indicate explicitly in the PDD if this gas is mixed with the project gas and lift gas.</p> <p>5- PDD; <i>Excess associated gas – gas not utilized onsite in GTPP or in gas-lift operations - is delivered to the onshore gas processing facilities, in particular Garadah Gas Processing Plant.</i> DOE: 5. Please show the above on on Fig.A.4.3.1.</p> <p>DOE: 6. Fig.A.4.3.1 shows that APG enters the gathering pipeline from other wells. Please indicate this explicitly in the PDD.</p> <p>6- PDD; <i>New gas pipelines will connect collector platforms with the gathering gas pipeline, which will deliver the recovered gas to the central compressor</i></p>			
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<p><i>station. From the central compressor station the recovered gas will be transported to the existing onshore Garadah gas processing plant. All compressors operated at the central compressor stations are powered by associated gas. The gas recovered by the project activity will be transported through the gathering gas pipeline and compressed in the facility KS-3. The recovered gas will be further transported to the gas processing plant.</i></p> <p>DOE:</p> <p>7. Please indicate implicitly in the PDD, if appropriate, that the volume of the project gas equals the volume of the gas compressed by KS-3. Otherwise, review the above para for adequacy.</p> <p>DOE:</p> <p>Based on the above one can propose the following gas balance:</p> <p>1) project gas + 2) gas from OPU and CPF + 3) export gas for gas lift operations + 4) APG from other wells</p> <p>=</p> <p>1. gas transported to Caradakh GPP + 2. excess gas transported to other onshore gas processing facilities + 3. lift gas +</p>			
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4. gas supplied to GTPP Please justify, by gas balance or other means, that the project gas will not substitute partly the lift gas and gas supplied to GTPP.			
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