

VERIFICATION REPORT

VE-UER-078-MR5.2.1

Verification of Upstream GHG

Emission Reductions for project:

**«Associated Gas Recovery and Utilization in
Chuandong area»**

For the period: 01/10/2022 to 31/12/2022

Monitoring Period Number: 5

certifying the UER batch

0078_VERI_20210318_2022_030.2448N,106.2608E_103501.130001.

according to

ISO14064 Part 2

for intended usage under

The EU Fuel Quality Directive

Version 2.0, dated 25 October 2023

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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
EU ETS	European Union Emissions Trading Scheme
FAR	Forward Action Request
FQD	Fuel Quality Directive
GHG	Greenhouse Gases
LNG	Liquefied Natural Gas
ISO	International Standard Organisation
MRR	Monitoring and Reporting Regulations for EU-ETS
NGL	Natural Gas Liquids (Condensates)
PA	Paris Agreement
PDD	Project design Document
TR	Technical Reviewer
UER	Upstream Emission Reductions
UNFCCC	United Nations Framework Convention on Climate Change

1. Scope of the Verification

Verico SCE, an accredited verification body¹ according to DIN EN ISO 14065 including the validation and verification of GHG assertions based on ISO 14064 Part 1 or Part 2, has been ordered to perform a verification of a monitoring report for the project: «ISO 14064:2 GHG Emission Reduction project – Associated Gas Recovery and Utilization in Chuandong area» in order to confirm compliance of the monitoring report with requirements as set by ISO 14064 Part 2, the Council Directive (EU) 2015/652 of 20 April 2015 laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC (Fuel Quality Directive) of the European Parliament and of the Council relating to the quality of petrol and diesel fuels having regard to Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (1). This verification activity addresses in particular:

- the implementation of the project in accordance with the validated project design document;
- the amount of emission reductions achieved during the monitoring period

verico SCE performed all tasks as specified under ISO 14064 Part 3, thus undertaking a systematic, independent and documented process for the evaluation of a greenhouse gas assertion of the above-mentioned project activity against the agreed verification criteria through this verification report. The main objective of this activity is the use of the verification report by the ordered for the creation of UERs that are eligible under the FQD regulation. The process of UER creation requires verification as shown in the third step of the graph on the right. All consecutive steps fall under the responsibility of the fuel supplier using UERs and are not part of this engagement.

verico SCE has nominated a verification team fulfilling the internal qualification criteria based on ISO 14064 Part 3, ISO 14065 and ISO 14066. The verification process involved an in-depth review of the submitted set of documentation and records as well as background research regarding applied technologies and country-specific circumstances among others. Following a strategic analysis and the determination of assessment risks, a detailed verification plan has been developed.

The verification by a member of the verification team with appointment as lead verifier and covering all competences in the relevant sectoral scopes included web-conferences/emails interchange, with all the personnel involved in the GHG emissions reduction project. A finding list has been provided to the orderer who subsequently revised the documentation. The revised documentation underwent a further review before issuing this final verification report.

The verification statement is given at a reasonable level of assurance. When verifying reported data, a 0.5% materiality threshold has been applied with regard to the total amount of emission reductions thus enabling to confirm that the reported emission reductions are of equivalent confidence as of Commission Regulations (EU) No 600/2012.

The verification has been carried out in the period from 11 February 2023 to 28 February 2023.

Verification has been opened the 23rd October 2023 to address a finding from the Austrian Environmental Protection Agency (UBA). It is related to a FAR coming from the validation stage. This FAR is now addressed in this verification report.

¹ DAkkS Accreditation ID D-VS-19003-01-01

2. Project Details

Project Title	ISO 14064:2 GHG project: Associated Gas Recovery and Utilization in Chuandong area				
Brief Description	<p>The purpose of the project activity is to achieve the recovery and utilization of associated gas from HS4 oil well of Southwest Oilfield in Wusheng County, Guang'an City, Sichuan Province, People's Republic of China.</p> <p>In the processing station, the recovered associated gas is processed into dry gas and condensates (NGL -Natural Gas Liquids). The dry gas continues to be processed into LNG (Liquified Natural Gas). Both LNG and NGL are final products, which is transferred and then eventually sold to the end users by trailers. The annual capacity of project activity is designed to recover 70,000,000 Nm³ of associated gas.</p> <p>During this monitoring period from 01/10/2022 to 31/12/2022, totally 17,109,404 Nm³ associated gas has been recovered and utilized, that generated 31,919,000 kgCO₂e emission reductions.</p>				
Project site	<p>Coordinates of the physical site of the project</p> <table border="1" data-bbox="550 1019 1082 1137"> <tr> <td>Longitude:</td> <td>106.2608 East</td> </tr> <tr> <td>Latitude:</td> <td>30.2448 North</td> </tr> </table>	Longitude:	106.2608 East	Latitude:	30.2448 North
Longitude:	106.2608 East				
Latitude:	30.2448 North				
Contracting Party of Verification Order	Gulf Organisation for Research and Development (GORD) Science Technology Park, Tech1, Level2, Suite203, Doha, Qatar				
Buyer of share of emission reductions	MOL Austria Handels GmbH				
Corporate registry number	FN 84355b				
Address	Walcherstrasse 11a/ 7th floor A-1020 Vienna, Austria				
VAT Number	ATU 14187208				
Validated PDD incl. Monitoring Plan	Version 02 dated 7 May 2021				
Final version of the Monitoring Report	UER Monitoring Report (5 th monitoring period) For the period: 01/10/2022 to 31/12/2022 Version 02 dated 21 February 2023				
Applied methodology	CDM methodology AM0009 "Recovery and utilization of gas from oil fields that would otherwise be flared or vented" Version 07.0				
Monitoring Period	01/10/2022 to 31/12/2022 (both dates included)				



Verified UERs	31,919 tCO₂e (covering the complete monitoring period)
Certified UERs	26,500 tCO₂e. (unique subset that is certified by this report)
UER batch	0078_VERI_20210318_2022_030.2448N,106.2608E_103501.130001



3. Assessment Approach

a. Contract Review

Based on submitted information on the project idea, its location, relevant stakeholders and the applied methodology, it was agreed to execute the project under an extension of the framework contract for UER activities closed with Gulf Organisation for Research and Development (GORD). Addendum to this framework contract was accepted by GORD purchase order. The scope of accreditation of verico SCE as accredited validation and verification body covers all relevant scopes (here CDM scope 1 and 10) of this project activity, and verico SCE has access to auditors covering the required competences in the sectors related for this activity. The contract complies with the internal requirements of the validation and verification body. The cost estimate ensured that the required personnel and time resources were available for processing. The client confirmed the independence of the verification team members and verico SCE in writing.

b. Assessment Team

Lead Auditor:

Jing (Robin) Wang ISO14064-2 CDM Scopes: 1,3, 8, 10

Auditor(s):

Werner Betzenbichler ISO14064-2 CDM Scopes: 1 to 13

The appointment certificates confirming the qualification of the team members are provided under Annex 5 of this report.

c. Preparation of the Assessment

The verification criteria were agreed between the client and verico SCE prior to the assessment as the verification of the monitoring report to meet the requirements under ISO 14064 Part 2, the Council Directive (EU) 2015/652 of 20 April 2015 laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC (Fuel Quality Directive) of the European Parliament and of the Council relating to the quality of petrol and diesel fuels having regard to Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (1).

At the start of this verification activity, the project participants submitted the project documentation and emissions reduction estimations. By reviewing and evaluating these documents a strategic and risk analysis has been performed in order to develop an project-specific assessment plan, that has

captured and identified all relevant areas of assessment in order to reduce assessment risks and to enable a statement at a reasonable level of assurance that the project complies with the requirement of ISO 14064 Part 2 (ISO 14064-2).

verico SCE has been provided with a Monitoring Report version 01 dated 30 January 2023 and underlying data records covering the monitoring period. These documents serve as the basis for the assessment presented herewith. The reporting period starts 01 October 2022 and ends on 31 December 2022 (including the first and last day of this monitoring period).

The following table presents the areas of concern, which needed further investigation beyond the document review, the associated risks which might result in non-compliance and the initially selected assessment methods. This list has been prepared before drafting a detailed verification plan for the web-based interviews and the following on-site mission.

Area of Concern	Risk	Assessment method
Technical /physical project boundaries	Connected oil wells and Gas recovery with respect to Points to monitor the volume of recovered gas and dry gas consumed by the project activity for the processing station; which are set corresponding to all material flows including on-site consumption.	Interview and inspection of <ul style="list-style-type: none"> Evidence/s presented on engineering and procurement contract reports Feasibility Study Report, Proofs regarding amount flared in historical circumstances Physical Visit by the lead auditor
Correctness of underlying data	Use of inappropriate calculations Incorrect conclusions	Data verification
Implementation of the approved monitoring plan	Any binding requirements from validation of the validated PDD / registration scheme	Audit Inspection Document review
Calculations / estimations	Excel sheets for ER calculation Data correctness and quality, and estimations	Review of excel files (initial and final versions) Historic records
Project Emissions	Quality of recovered gas dry gas consumed by gas-fired generators	Interviews Document review and evidence thereof
Leakage Emissions	Not considered acc. to validated PDD	n.a.
Monitoring Plan	Identification of Key instruments Correct monitoring locations Monitoring Parameters	Review of excel-tables Documentation Review Interview
Environmental integrity	Appropriate approvals	Interview Document review
Quality assurance / quality control	Data quality of ER calculations Calibration records	Interviews Document review

d. Verification Audits

A verification audit including on-site inspections took place on 11 February 2023. During the audit, interviews and document reviews were conducted.

A Finding list was issued, and some editorial and other minor errors were discussed with the project participants resulting in a need for revising the Monitoring Report. Further proofs and a revised version of the Monitoring Report, labelled as version 02 dated 21 February 2023 have delivered subsequently. All proofs (records, photos, databases, documents) have been checked during the second round of the audit process. A list of reviewed documents is provided in Annex 3 of this Verification Report.

Annex 4 to this report provides a list of interviewed persons.

The following figure provides some impressions of points discussed during the audits:



Image 1: The overview the processing station



Image 2: The skid of desulphurization



Image 3: The Orifice Plate flowmeter at point F

e. Specific assessment plan for the facility

Together with the verification process, the checklist as referred to under 3.c. has been completed with information collected and verified during documents reviews and both on-line audits and indicates the details of findings/confirmations. The checklist and the collected information and documents remain as internal verification documentation at verico SCE. The project-specific checklist with the final results is provided in Annex 1 of this Verification Report.

f. Follow-up of Revisions

After the delivery of requested further evidence and the revision of the project documentation addressing the identified non-compliances, a further round of desk reviews has taken place, assessing these submissions. All final assessments regarding the closure of findings is documented under the finding list, attached as Annex 2 to this report.

g. Technical Review

Before the report is approved, an internal review is conducted by a lead auditor (Technical Reviewer) assigned to it by the verification body who was not himself a member of the audit team. The main focus of this process is the assessment of the completeness and traceability of the validation carried out on the basis of the internal and external validation report. If necessary, the validation team will be asked to catch up on missing test steps or to correct or supplement the test report to increase transparency.

This particular review has been conducted by Luis Robles Olmos, who is appointed as Technical Reviewer of ISO14064 Part 2 activities covering ISO14064-2 CDM Scopes 1,3,7,10,13,14,15. His appointment certificate is provided under Annex 5.

4. Observations and Findings

a. General Information

All information regarding the involved project proponents, the organisational arrangements, the daily practice and technical features have been proven to be correct. All procedures relevant to the project have been provided and their application on the project activity properly checked.

The verification focused on the correct implementation of the project (installations, monitoring equipment and procedures, quality assurance procedures), including the correctness of assumptions and calculations with possible impacts on the monitoring and verification process (e.g., uncertainty analysis).

All monitoring activities are either in accordance with the validated project design document, and all information regarding applied procedures, maintenance and data processing is clearly documented.

The project boundaries are clearly established as per the validated PDD version 02 dated 7 May 2021 submitted for validation and the Monitoring Report subject of this verification.

b. Legal Requirements

The project is in compliance with the host country's legislation. All required licenses are available. It is also evident there are no specific legal requirements to deliver the required service in the manner as done by the project activity. Hence the baseline scenario as claimed for in the validated PDD is still deemed being applicable. Thus, it can be confirmed that the baseline identification process by the project proponents and the according validation are both transparently and suitably presented. There are no legal requirements introduced since validation, which would have changed the conditions for determining the baseline scenario.

Eligibility of the GHG project under the GHG program

The project is expected to be used under the EU Fuel Quality Directive, which is complemented with rules on the eligibility set by «COUNCIL DIRECTIVE (EU) 2015/652 of 20 April 2015 laying down calculation methods and reporting requirements». Further assistance is given by the «GUIDANCE NOTE on approaches to quantify, verify, validate, monitor and report upstream emission reductions», which also implicitly contains further requirements to be considered when determining the eligibility of an individual project. While many EU member states simply make reference to these provisions, some other countries have adopted specific implementation rules, which set further requirements. The following table lists the eligibility of the GHG project in the context of generic and specific requirements available at the time of verification.

ID	Requirement	Observation
EU-D1	<p>UERs shall only be applied to the upstream emission's part of the average default values for petrol, diesel, CNG or LPG.</p>	<p>As confirmed in original validation report.</p>
EU-D2	<p>UERs originating from any country may be counted as a reduction in greenhouse gas emissions against fuels from any feedstock source supplied by any supplier.</p>	<p>This does not restrict the use of UERs for any eligible project.</p>
EU-D3	<p>UERs shall only be counted if they are associated with projects that have started after 1 January 2011.</p>	<p>As confirmed in original validation report.</p>
EU-D4	<p>UERs shall be estimated and validated in accordance with principles and standards identified in International Standards, and in particular ISO 14064, ISO 14065 and ISO 14066.</p> <p>The UERs and baseline emissions are to be monitored, reported and verified in accordance with ISO 14064 and providing results of equivalent confidence of Commission Regulation (EU) No 600/2012 and Commission Regulation (EU) No 601/2012. The verification of methods for estimating UERs must be done in accordance with ISO 14064-3 and the organisation verifying this must be accredited in accordance with ISO 14065;</p>	<p>The requirements of these standards and regulations have been used in the context of this verification (see following sections)</p>
EU-D5	<p>In order for UERs to be eligible, fuel suppliers shall report:</p> <ul style="list-style-type: none"> - the non-reusable certificate number uniquely identifying the scheme and the claimed greenhouse gas reductions; - the non-reusable number uniquely identifying the calculation method and the associated scheme; 	<p>Compliance with the first two bullet point will depend on the member state at which the UERs shall be used. Although recommended by the Commission, most member states have not established a UER registry enabling easy compliance with that requirement.</p> <p>In the absence of requested solutions, a unique number for the UER batch will be assigned by the verico verification report. However, this unique number does not consider the calculation method, as a common standard for the identification of calculation methods is neither given nor required.</p>

ID	Requirement	Observation
EU-G1	For emission reductions to be eligible to be claimed as UERs they must be additional to any emissions changes that would have been expected in the most likely counterfactual scenario.	As confirmed in original validation report.
EU-G2	Any particular batch of emission reductions from a given project may only be claimed against FQD GHG emission reduction obligations or other emission reductions targets once. These emission reductions cannot be claimed under the Kyoto Protocol's Clean Development Mechanism or the Joint Implementation. Similarly, upstream emission reductions that have been accounted for third party emission reductions schemes shall not be eligible under the FQD.	According to confirmation by the project proponents the use of the verified emission reductions as UER is the only purpose of this verification activity. However, further claims have to be excluded by contractual arrangements amongst sellers and buyers, if deemed necessary.
EU-G3	The boundary should include all GHG sources and removals and any GHG source, sink, or reservoir that is controlled, related to, or affected by the project (ISO 14064-2 Article 5.3). These are considered 'relevant' sources. Examples of project boundaries can be drawn from CDM methodologies and in the ICCT report on «The Reduction of Upstream Greenhouse Gas Emissions from Flaring and Venting».	As confirmed in original validation report and the underlying PDD / monitoring plan.

Further Reporting Requirements under the GHG program

The project documentation fulfils all reporting obligations as given by the applicable regulations for UER activities (EU Regulation (EU) 2015/652 Annex 1 part 2 No. 1e) and 1h)). In particular this addresses the following data:

Oil Production Related Data

Parameter	Unit	Value
GHG intensity prior to project implementation	g CO ₂ eq/MJ	95.29
GHG intensity after reduction measures	g CO ₂ eq/MJ	16.02
Crude oil amount for this monitoring period	kg	9,448,000
Crude oil amount for this monitoring period	MJ	402,673,760

Parameter	Unit	Value
Reporting year gas-to-oil ratio (GOR) in solution during this monitoring period	m ³ /t	1878.9

All information has been checked for consistency and plausibility.

c. Accuracy and Completeness

As result of reviewing evidence and pertaining document, it can be confirmed that all relevant parameters for the ex-post determination (quantity of recovered gas and dry gas consumed on-site) have been monitored according to the monitoring plan. This addresses in particular:

- Volume of the total recovered gas measured at point F by the flowmeter ($V_{F,y}$);
- Volume of the total dry gas on-site consumed at point E by the flowmeter ($FC_{i,j,y}$)

All parameters within the project boundary are metered at high accuracy. The reported emission reductions are of equivalent confidence as of Commission Regulations (EU) No 600/2012, which contains general principles for verification and the accreditation of verifiers and Commission Regulation (EU) No 601/2012 which contains general principles for monitoring and reporting that can be applied to upstream emission reduction projects.

d. Quality assurance / quality management and risk management

The monitoring system, related procedures and its implementation are in compliance with the requirements set by the underlying regulations and standards. All data which require metering are clearly identified and according arrangements have been made in line with appropriate procedures for data collection and its analysis. All parameters were determined as prescribed in the monitoring plan and associated (inherent) risks have been considered by implementing appropriate maintenance and quality assurance procedures. Reporting procedures reflect the monitoring plan and consolidated data and event logs are stored electronically. The necessary internal procedures and additional internal work instructions support the determination of all the parameters listed in the monitoring plan in an effective manner.

e. Data gaps and corrections

The monitoring system, related procedures and its implementation are in compliance with the requirements set by the underlying regulations and standards. All data which require metering are clearly identified and according arrangements have been made in line with appropriate procedures for data collection and its analysis. All parameters were determined as prescribed in the monitoring plan of the validated PDD and associated (inherent) risks have been considered by implementing appropriate maintenance and quality assurance procedures.

Monitored monthly aggregated data of volume, and the weekly analysis of NCV (recovered gas and dry gas) is collated to the project owner immediately after the last day of each month for billing purposes. Calibration records were ascertained. These instruments across the station are:

- Associated gas Flowmeter at point F of the processing station;
- Dry gas Flowmeter at point E of the processing station.

Records of data are maintained in compliance with the legal requirements. Up-to-date information of monitoring instruments is shown in the following tables:

Monitoring instrument	Instrument type	Installation location	Accuracy	Calibration valid period
Flowmeter for recovered gas	Orifice Plate	Marked as point F in figure C-2	1.0 class	From 20/01/2022 to 19/01/2023
Flowmeter for dry gas	Precession Vortex	Marked as point E in figure C-2	1.0 class	From 20/01/2022 to 19/01/2023

The specification and instruction manuals have been checked and found that the flowmeter is equipped with automatic temperature (T) and pressure (P) compensation and automatic correction of compression coefficients, so they can directly measure volume flow and accumulated flow under standard conditions.

No data gaps were detected during the monitoring period under verification. It can therefore be concluded by a high level of assurance that the implemented monitoring plan has performed as to ensure a proper monitoring of emission reductions towards ensuring the verifiability of monitoring report for the period 01/10/2022 till 31/12/2022 .

f. Assessment of Uncertainties

It can be confirmed that the available data meet uncertainties requirements as specified by the EU ETS.

According to the requirements as set by Article 19 & 26 of Commission Regulation (EU) 601/2012, the highest tier in Annex II should be applied for projects classified into category B installation (annual baseline emissions of 157,066 tCO_{2e} as estimated in PDD and more than 50,000 tCO_{2e}). For gaseous and liquids fuels the maximum permissible uncertainty is $\pm 1.5\%$ for tier 4.

Uncertainties are assessed as per EU ETS Guidance Document No.4, Route CO-2a where the maximum permissible error specified for that instrument in service is used.

According to the calibration reports, those flow-meters are shown meet accuracy class 1.0 which complies with EU ETS requirements for 1.5% uncertainty for major source streams.

No data gaps of flow data were detected during the monitoring period under verification. It can therefore be concluded with a high level of assurance that the implemented monitoring plan ensures a proper monitoring of emission reductions for the period 01/10/2022 to 31/12/2022 inclusive.

g. Findings and Non-Conformities

To evaluate whether the requested confirmation can be given, verico SCE established a checklist and conducted a specific analysis. A confirmation was made and attached to the verification report.

The Forward Action Requests raised during the validation and addressed in previous verifications requests the confirmation of non-use of UERs as offsets against the PRC NDC or third countries as per Paris Agreement provisions. Based on the local expertise of the verification team in China, it is confirmed that the modalities for accounting towards PRC NDC commitments or for the transfer of ITMOs under article 6 of the Paris Agreement have not been developed yet. Due to this it can be confirmed that the verified UERs are not offset in a different scheme.

It is discussed in Annex 2 'Findings list'. This Forward Action Request raised during the validation remains in the same status for next verifications.

There are three (3) CL were issued during this verification, which mainly requested more evidence.

[CL#01] was raised for the necessary data of GHG intensity of crude oil (g CO_{2e}/ MJ) as required under FQD.

[CL#02] was raised for training records for the new operation staff recruited within this monitoring period;

[CL#03] was sought for subsequent calibration considering the validity period of the calibration reports for this monitoring period is about to expire (till 19/01/2023),

All CLs were closed after the required information was provided and found acceptable.

h. Recommendations for Improvements

n/a

5. Verification Statement

Verico SCE has undertaken the verification of the GHG emission reduction project «Associated Gas Recovery and Utilization in Chuandong area» located in the China and implemented by the project proponent «Gulf Organisation for Research and Development (GORD)», covering the monitoring period from 01 October 2022 to 31 December 2022 in accordance with:

- the registered project documentation,
- the requirements of ISO 14064 Part 2,
- the Council Directive (EU) 2015/652 of 20 April 2015 laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC (Fuel Quality Directive) of the European Parliament and of the Council relating to the quality of petrol and diesel fuels having regard to Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (1) .

The project will reduce emissions by recovering and utilizing the associated gas from oil fields, currently being flared and processing the recovered gas into hydrocarbon products. The preconditions for approval were still present in relation to the project activity during the verification period. The project activity has been carried out in accordance with the project documentation.

No findings were left unsolved or remaining at the issuance of the verification statement. The Forward Action Requests raised during validation is still valid and maintained in this verification report.

The verification team is therefore of the opinion that the GHG Assertion of the project «Associated Gas Recovery and Utilization in Chuandong area» is implemented as planned and described in the project design document, and that it is in accordance with the underlying requirements. All monitored data and calculation of emissions or removals have been assessed and it can be confirmed at a reasonable level of assurance, that the data is free from material misstatements.

Therefore, verico SCE hereby certifies at a reasonable level of assurance that the upstream emissions reductions or removals enhancements of the GHG project «Associated Gas Recovery and Utilization in Chuandong area» during the monitoring period from 01 October 2022 to 31 December 2022 amounts to:

31,919 tCO₂e

The reported emission reductions are of equivalent confidence as of Commission Regulations (EU) No.600/2012 (amended by No.2018/2067), which contains general principles for verification and the accreditation of verifiers and Commission Regulation (EU) No.601/2012 (amended by No. 2018/2066) which contains general principles for monitoring and reporting that can be applied to upstream emission reduction projects.

Therefore, verico SCE hereby certifies at a reasonable level of assurance that the unique UER batch(es)

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is (are) established exclusively on verified emission reductions achieved in a contiguous time period in the calendar year 2022 by the GHG project «Associated Gas Recovery and Utilization in Chuan-dong area».

Beijing 25.10.2023

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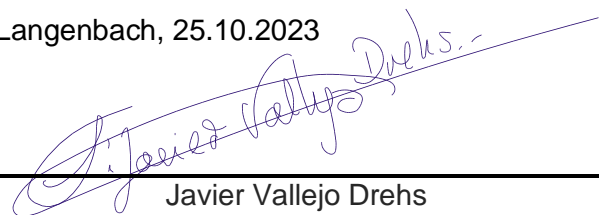
Robin Wang
Lead Auditor

Los Molinos (Madrid), 25.10.2023

A blue ink signature with a large, circular loop at the top and a horizontal line at the bottom.

Luis Robles Olmos
Technical Reviewer

Langenbach, 25.10.2023

A blue ink signature in a cursive style, with the name "Javier Vallejo Drehs" clearly legible.

Javier Vallejo Drehs
Verification Body verico SCE

² This specific report is issued to confirm certification of this batch, each batch receives an own dedicated verification report

Annex 1

Checklist of the Verification Assessment Plan



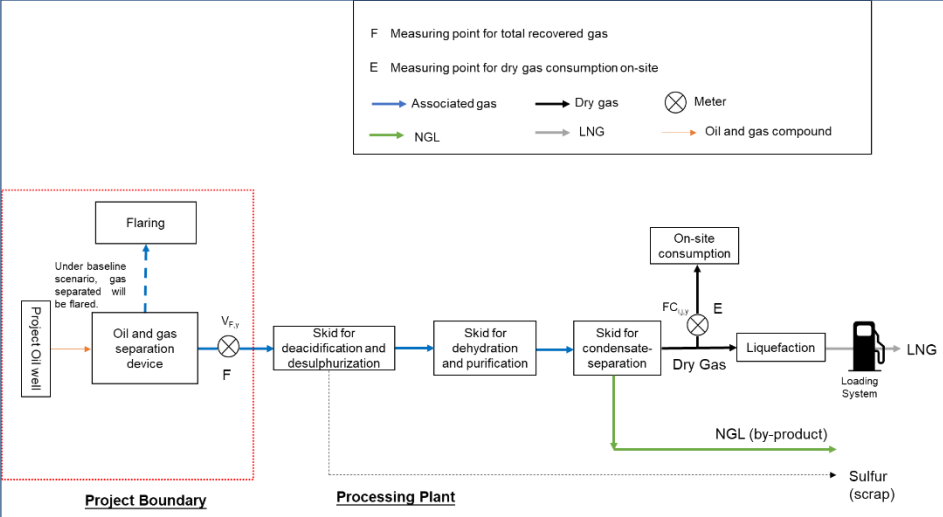
Forward Action Requests and Issues remaining from Validation or previous Verification

Forward Action Request	Verified situation	Concl.
The following FAR raised in validation is still valid: <i>A confirmation is required at verification stage that the upstream emission reductions are not offset simultaneously against the NDCs of the host country (PRC) or third countries in accordance with obligations according to the Paris Agreement.</i>	<p>The situation in China has not changed since the validation stage in respect to NDCs of the host country and the obligations according to the Paris agreement.</p> <p>Based in local expertise of the verification team in China and taking into account that the NDCs have not been published yet, it can be confirmed that the verified UERs are not offset in a different scheme.</p> <p>Nevertheless, the FAR is maintained for next monitoring period.</p>	FAR01

SECTION 1. Project plan (Project description)

Requirement	Verified situation	Concl.
General description of the project		
1.1. Does the GHG Report provide general information of the project?	<p>The UER Monitoring Report (hereafter referred to as the MR) “Associated Gas Recovery and Utilization in Chuandong area “</p> <p>for the 5th monitoring period 01/10/2022 to 31/12/2022, final version 02 dated 21/02/2023, presented general information of the project and found the consistency with the validated PDD version 02 dated 07/05/2021.</p> <p>By on-site checking, it is found that during this monitoring period, there were no changes in operator body, production facilities and monitoring equipment.</p>	CL#01 OK

Requirement	Verified situation	Concl.
	<p>The production capacity of the HS4 oil well has been confirmed with Southwest Oilfield that the output was basically stable in this monitoring period..</p> <p>The motoring and reporting actions were well implemented following the monitoring procedures of the validated PDD.</p> <p>The data of the recovered associated gas and resulted emission reductions has been specified in the MR and calculation spreadsheet.</p> <p>CL#01 was raised for missing data of GHG intensity of crude oil (g CO₂e/MJ) in the cover page of the MR.</p> <p>It was closed after the required data added in the final version of the MR with a spreadsheet named</p> <p><i>"1.GHG intensity calcuation sheet_Chuangdong_MP5. xlsx"</i></p> <p>dated 21/02/2023.</p>	
1.2. Is there any open issue in the validation / previous verification?	<p>The validation report of the project and previous verification reports:</p> <ul style="list-style-type: none"> ➤ 1st monitoring period from 18/03/2021 to 30/06/2021 ; ➤ 2nd monitoring period from 01/07/2021 to 31/12/2021; ➤ 3rd monitoring period from 01/01/2022 to 24/03/2022; and ➤ 4th monitoring period from 25/03/2022 to 30/09/2022 <p>have been checked and no open issue was found.</p>	OK
Implementation status of the project activity		
1.3. Is the project location indicated? Confirm geo-graphical coordinates	<p>Coordinates of the project site have been included in the final Monitoring Report.</p> <p>It was compared with that in the Validation Report (MC-UER-2021-014 version 01 dated 17/05/2021) and found the same.</p>	OK

Requirement	Verified situation	Concl.
	<p>The coordinates were also confirmed through on-site inspection by Google GPS.</p> <p>The geographical location of the recovery and processing plant is 106.2608°E, 30.2448°N.</p>	
<p>1.4. Are all GHG sources relevant to the project identified? Is any emission source missed? Check the site lay-out and confirm through site tour.</p>	<p>Project boundary is well identified all the GHG sources of the oil and gas separation facility and the processing station, such as the location of the Point F before the skid of purification unit of the process station.</p> <p>The other GHG sources outside the project boundary are also well established as illustrated in Figure A-3. The pipeline and all the infrastructures were confirmed by a site tour by the Lead auditor.</p> 	OK
<p>1.5. Confirm conformance with GHG program requirements: baseline and monitoring methodology - Applicability conditions. Please refer to the complete description of the applicability conditions and confirm that the project activity meets all the requirements.</p>	<p>The project has correctly applied the methodological requirements that were covered by the validated PDD version 02 dated 07/05/2021.</p>	OK

Requirement	Verified situation	Concl.
<p>1.6. By means of an remote audit:</p> <p>List each technical component and equipment and check design parameters and actual status of installation and / or operation.</p> <p>Please check to ensure that all physical features of the proposed project are in place and operated according with the GHG program requirements.</p> <p>In cases where there are a large number of components and equipment items and the check of all of them is not an available option, then a random sampling check shall be performed. Justify here the sample chosen and describe the results.</p>	<p>All relevant flows and technical components are displayed in a graphic scheme as Figure C.2: “Metering points” in section C.2. “Monitoring apparatus and installation” of the final version of Monitoring Report.</p> <p>The existence of the piping system and technical components as flow meters and sampling points were verified by the lead auditor. It can therefore be demonstrated that all physical features including the relevant meters are in place.</p>	OK
<p>1.7. Have responsibilities for monitoring been described and specified?</p>	<p>Responsibilities and functions are described within the last version of the MR version 02 dated 21/02/2023 and conform to the actual situation. Information is included in the MR Section C. “Description of the Monitoring System”.</p> <p>It has been checked against the monitoring manual of the project operator during on-site inspection.</p>	OK
<p>1.8. Check QA/QC, management systems. Are procedures described and specified? Are they consistently applied?</p> <ul style="list-style-type: none"> • documented instructions, management manual • documentation • data archiving • monitoring report • cross-checking 	<p>The MR Section C clearly establishes the organizational structure and management roles and responsibilities in the documentation, data and information collection, monitoring and its archiving.</p> <p>The monitoring produces a continuous measurement by the flow meters for the recovered gas at Point F and dry gas consumption at Point E respectively, which readings are recorded as aggregated data on daily basis.</p> <p>As a full set of measurement instruments, the specification of Pressure and Temperature assembly as well as sensors system were calibrated together. All the calibration records have been verified and found the eligibility.</p>	OK

Requirement	Verified situation	Concl.
<ul style="list-style-type: none"> energy balance analysis (as relevant) internal audits / verification and management review 	<p>The average net calorific value of recovered gas at point F ($NCV_{RG,F,y}$) and of dry gas at point E ($NCV_{i,y}$) is conducted by Sampling at the above two points and subsequent composition analysis for calculation of net calorific value once a week.</p> <p>The below corresponding records have been checked for substantiality.</p> <ul style="list-style-type: none"> ➤ Weekly production data covering this monitoring period ➤ Production daily reports covering this monitoring period ➤ Flowmeter instruction manual ➤ Monthly service confirmation notices issued by Chengdu Natural Gas Chemical Plant of PetroChina Southwest Branch covering this monitoring period; ➤ Recovery service agreement of associated gas; and ➤ Recovered gas /Dry gas analysis reports covering this monitoring period. <p>The period of records keeping was applied to be 2 years after the crediting period, which is in accordance with CDM rules and the requirement in ISO 14064-2.</p>	
1.9. Has a procedure for emergency and abnormal situations been established?	<p>Procedures were verified and confirmed by the Lead auditor</p> <p>Data have been recorded from readings of measurement instrument and archived since the station commencement by means of electronic and paper backup.</p>	OK
1.10. Has the system for qualification and training been established as relevant for the monitoring and management activities?	<p>Training records and qualification of monitoring personnel have been verified on-site and found in place.</p> <p>CL#02 was raised for training details for the new operation staff recruited within this monitoring period.</p>	CL#02 OK

Requirement	Verified situation	Concl.
	<p>After the documented evidence named “2. Training Record.pdf ” was provided and the attendance of the two new staff in the training on 05/10/2022 can be confirmed, it was closed.</p> <p>It is found that during this monitoring period, there were two staff added and they have all been trained in terms of QHSE in the periodic training course at head office.</p>	
1.11. Check the environmental report, license, permit and compliance to the local environmental legislation (if relevant).	The proof has been submitted and checked accordingly.	OK
1.12. Check contribution to sustainable development, in accordance with the GHG program.	Not applicable	OK
1.13. Check issues with local stakeholders, claims, complaints, etc.	Not relevant at the time of 5 th monitoring period	OK

SECTION 2. Quantifying GHG emissions and/or removals

Requirement	Verified situation	Concl.
2.1. Is the project location indicated? Confirm geographical coordinates?	There is no any change to the validated PDD and previous verification. The details of project location are described appropriately in the final version of the MR.	OK
2.2. Are all GHG sources relevant to the project identified? Is any emission source missed? Check the site lay-out and confirm through site tour.	There is no any change to the validated PDD and previous verification. The details of GHG sources are described appropriately in the final version of the MR.	OK

Requirement	Verified situation	Concl.
<p>2.3. Confirm conformance with GHG program requirements: baseline and monitoring methodology - Applicability conditions. Please refer to the complete description of the applicability conditions and confirm that the project activity meets all the requirements.</p>	<p>As per the validated PDD version 02 dated 07/05/2021.</p> <p>There is no any change to the validated PDD and previous verification (from the 1st to the 4th monitoring period).</p>	OK
<p>2.4. By means of an web-interview:</p> <p>List each technical component and equipment and check design parameters and actual status of installation and / or operation.</p> <p>Please check to ensure that all physical features of the proposed project are in place and operated according with the GHG program requirements.</p> <p>In cases where there are a large number of components and equipment items and the check of all of them is not an available option, then a random sampling check shall be performed. Justify here the sample chosen and describe the results.</p>	<p>All information is consistent with Section A.4."Technical measures" of the final version of the MR.</p> <p>Processing system, components and measurement instrument etc were verified by means of witness of on-site inspection and found the consistency and comparability with the description in the validated PDD.</p> <p>The relevant supporting evidences including</p> <ul style="list-style-type: none"> ➤ Layout of processing system ; ➤ Reading records of volume of recovered gas; ➤ Records of dry gas consumption; ➤ Relevant receipts / bills; ➤ Calibration reports of flowmeters. <p>It can be confirmed that the monitoring data in this reporting period was transparent and accurate.</p>	OK
<p>2.5. List any monitoring aspect that is not specified in the criteria, procedure and/or methodology and check its compliance with the GHG program, for example:</p> <ul style="list-style-type: none"> • additional monitoring parameters • monitoring frequency • calibration frequency. 	<p>Annual calibration is conducted for key instrumentation identified by the project proponent with appropriate evidence:</p> <p>Flowmeter at point F (type: Orifice plate) :</p> <ul style="list-style-type: none"> ➤ Calibration certificates (no.D2022012000102) of the flow meter (Model: ACF-1PHKBFKQGB11, S/N: 5201110001, accuracy" 1.0 class) <p>valid period:</p> <ul style="list-style-type: none"> ➤ 24 Feb.2021 to 23 Feb.2022; and ➤ 20 Jan.2022 to 19 Jan.2023; and 	CL#03 OK



Requirement	Verified situation	Concl.
	<p>Flowmeter at point E (type: Vortex precession)</p> <ul style="list-style-type: none"> ➤ Calibration certificates (no.D2022012000103) of the flow meter (Model: TDS-80BI, S/N: TX3013314, accuracy” 1.0 class) <p>valid period:</p> <ul style="list-style-type: none"> ➤ 24 Feb.2021 to 23 Feb.2022; and ➤ 20 Jan.2022 to 19 Jan.2023 <p>It is confirmed that the valid period of above calibration certificates covers this monitoring period.</p> <p>Considering the validity period of the calibration reports is about to expire (till 19/01/2023), CL#03 was raised for the calibration action for the subsequent monitoring periods</p> <p>It was closed after the copy of the latest calibration report “Calibration report for the flowmeters 2023.pdf ” dated 09/01/2023 was provided.</p>	
<p>2.6. Has the data been generated at the frequency required by the applied criteria, procedure and or methodology?</p>	<p>The frequency implemented has been found in line with the Monitoring Plan in the validated PDD.</p> <ul style="list-style-type: none"> ➤ Flow-meters are continuously measured and aggregated readings automatically; ➤ Data recorded and reported by monitoring team on Monthly basis; ➤ Monitoring reported prepared periodically and at least monthly. 	<p>OK</p>
<p>2.7. Have types of measurement instrumentation used been described and specified?</p>	<p>There is a comprehensive description in the registered PDD, which is consistent with the real situation in this monitoring period.</p>	<p>OK</p>

Requirement	Verified situation	Concl.
<p>2.8. Is the accuracy of equipment used for monitoring sufficient and regularly controlled and calibrated according to current good practice? Check relevance of maintenance and calibration. Check relevance of laboratory analysis if necessary.</p>	<p>Satisfactorily. The technical specifications (accuracy” 1.0 class) of flow-meters and analysis in Uncertainty Assessment (1.0% meets 1.5% uncertainty threshold provision in (EU) 601/2012) were described appropriately in the final version of the MR/section C.2.</p>	<p>OK</p>
<p>2.9. Check responsibilities and authorities for monitoring and reporting. Are the monitoring results consistently recorded, reviewed and approved?</p>	<p>Satisfactorily. As per above</p>	<p>OK</p>
<p>2.10. Reporting period: Defined?</p>	<p>01/10/2022–31/12/2022 as per the MR for 5th MP and calculations.</p>	<p>OK</p>
<p>2.11. If the GHG program includes the determination of environmental and/or social indicators, have the sustainable development indicators been monitored?</p>	<p>Not relevant</p>	<p>OK</p>
<p>2.12. Check monitoring of Environmental and Social indicators (if relevant)</p> <ul style="list-style-type: none"> • implementation of measures • monitoring equipment • quality assurance procedures • external data. 	<p>EIA of the project dated July 2020 has been checked and found no relevant aspects need to be assessed during verification.</p>	<p>OK</p>

Monitoring procedures	Verified situation	Concl.
Confirm that the Monitoring procedure contains all the necessary parameters and that they are monitored in accordance with the GHG program using the following table:	See table below	

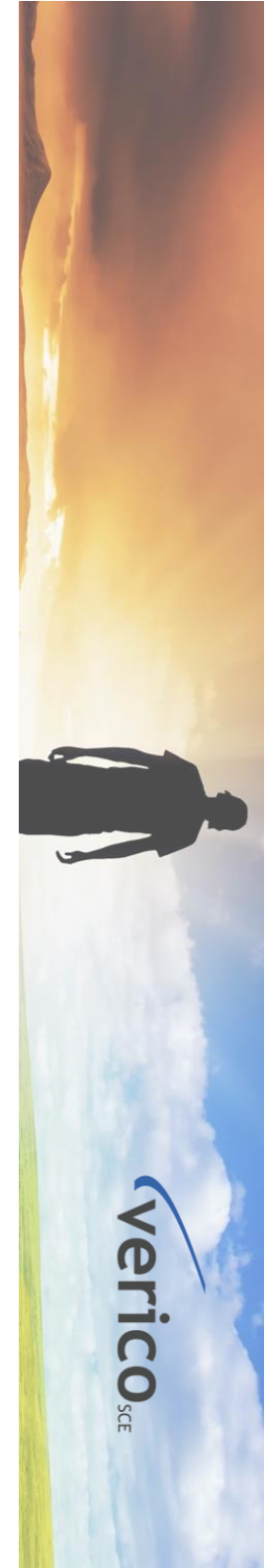
Parameter	Units	Monitoring Methodology	Verified situation	Concl.
Volume of the total recovered gas measured at point F by the flowmeter $V_{F,y}$	Nm^3	<input type="checkbox"/> Estimation <input type="checkbox"/> Modelling <input checked="" type="checkbox"/> Measurement <input type="checkbox"/> Calculation <input type="checkbox"/> Other:	The approach meets the data quality requirements comparable to the EU ETS.	OK
Average net calorific value of recovered gas at point F $NCV_{RG,F,y}$	TJ/Nm^3	<input type="checkbox"/> Estimation <input type="checkbox"/> Modelling <input checked="" type="checkbox"/> Measurement <input type="checkbox"/> Calculation <input checked="" type="checkbox"/> Other: lab analysis	The approach meets the data quality requirements comparable to the EU ETS.	OK
Volume of dry gas consumed by on-site gas-fired generators, measured at point E $FC_{i,j,y}$	Nm^3	<input type="checkbox"/> Estimation <input type="checkbox"/> Modelling <input checked="" type="checkbox"/> Measurement <input type="checkbox"/> Calculation <input type="checkbox"/> Other:	The approach meets the data quality requirements comparable to the EU ETS.	OK

Parameter	Units	Monitoring Methodology	Verified situation	Concl.
The weighted average net calorific value of dry gas combusted by on-site gas-fired generators, measured at point E NCV _{i,y}	GJ/Nm ³	<input type="checkbox"/> Estimation <input type="checkbox"/> Modelling <input checked="" type="checkbox"/> Measurement <input type="checkbox"/> Calculation <input checked="" type="checkbox"/> Other: lab analysis	The approach meets the data quality requirements comparable to the EU ETS.	OK
The weighted average CO ₂ emission factor of fuel dry gas at point E EF _{CO2,i,y}	tCO ₂ /GJ	<input type="checkbox"/> Estimation <input type="checkbox"/> Modelling <input type="checkbox"/> Measurement <input checked="" type="checkbox"/> Calculation <input checked="" type="checkbox"/> Other: lab analysis	The approach meets the data quality requirements comparable to the EU ETS.	OK

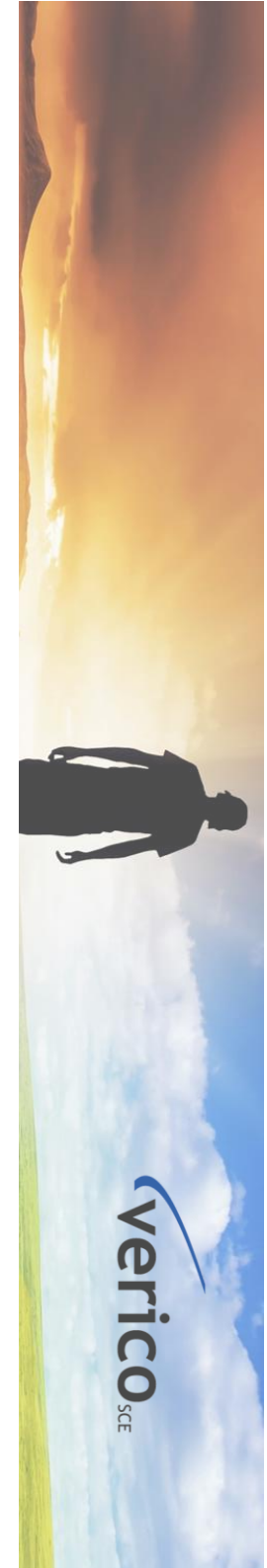
Monitoring procedures of above parameter	Verified situation	Concl.
Implementation of the procedure: 1. Confirm that the monitoring arrangements described in the monitoring procedure, including roles and responsibilities, are feasible within the project design.	Monitoring arrangements as well as roles and responsibilities have been checked by means of auditable evidence during the verification process.	OK
2. Confirm that the means of implementation of the MP, including the data management and quality assurance and quality control procedures, are sufficient to ensure that the emission reductions achieved by / resulting from the proposed GHG project can be reported ex post and verified.	Management structure and responsibilities for data management and quality assurance are clearly defined and addressed. Based on the consistent data management system and its quality and quality control procedures the emission reductions from the project activity can be reported and verified.	OK

SECTION 3. Assessment of data and calculation of GHG emission reductions

Requirement	Verified situation	Concl.
<p>3.1 Have calculations of baseline emissions, project activity emissions and emissions related and/or affected by the GHG project, as appropriate, been carried out in line with the formulae and methods described in the applied criteria, procedure and/or methodology?</p> <p>Check consistency in the ERs spreadsheet</p>	<p>It is determined appropriately as per the conservative approaches based on the reading records of the flowmeters and laboratory test results for NCV during this monitoring period.</p> <p>BE= 38,371 tCO₂e PE= 6,452 tCO₂e ER= 31,919 tCO₂e</p> <p>Equivalent amount based on the estimated one ex ante in the validated PDD. i.e.130,399 tCO₂e</p> <p>Based on 92 calendar days of this monitoring period (from 01/10/2022 to 31/12/2022), the equivalent amount for this monitoring period is 32,868 tCO₂e.</p> <p>The ER achieved in this monitoring period is less than the estimated value by 2.89%.</p>	OK
<p>3.2 Has the calculation tool been correctly documented? Check its consistency and formulae.</p> <ul style="list-style-type: none"> • baseline emissions • project emissions • controlled by the PP • related to the project. • affected by the project • emission reductions of the project. 	<p>The spreadsheet named:</p> <p>ER for MR_AG recovery in Chuandong_MP5_ver02_30-01-2023. xlsx</p> <p>It has been checked and found the appropriateness.</p>	OK
<p>3.3 Is a complete set of data available during the specified monitoring period? If only partial data is available because activity levels or non-activity</p>	<p>The raw data records and laboratory test reports of electronic system have been checked on-site by the lead auditor and found complete.</p> <p>The records titled</p>	OK

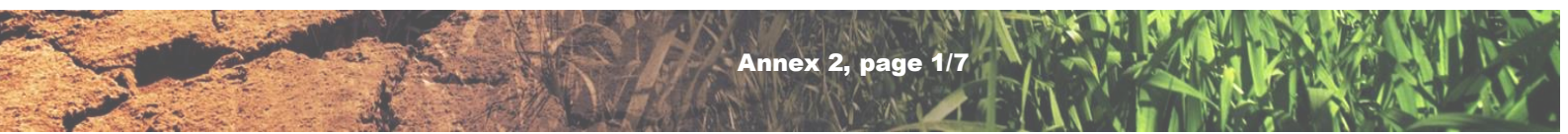


Requirement	Verified situation	Concl.
<p>parameters have not been monitored in accordance with the applied criteria, procedure and/or methodology, conduct an assessment of the potential impacts of these changes.</p>	<ul style="list-style-type: none"> ➤ Weekly production data.pdf ➤ Production daily report.pdf ➤ Flowmeter instruction manual ➤ Dry gas calculated values from material balance covering this monitoring period as listed in the ER sheet ➤ Monthly Receipt Notices for recovered gas issued by Chengdu Natural Gas Chemical Plant of PetroChina Southwest Branch covering this monitoring period <p>Above evidence has been verified and found consistent.</p>	
<p>3.4 Has information provided for quantifying GHG emissions reductions been cross-checked with other sources such as plant logbooks, inventories, purchase records, laboratory analysis?</p>	<p>All data inputs to UER calculations have been cross checked with the data records</p>	<p>OK</p>
<p>3.5 Have appropriate emission factors, IPCC default values, and other reference values been correctly applied?</p>	<p>All the data applied appropriately as per the validated PDD version 02 dated 07/05/2021, which are in line with the requirements in EU FQD rules</p>	<p>OK</p>





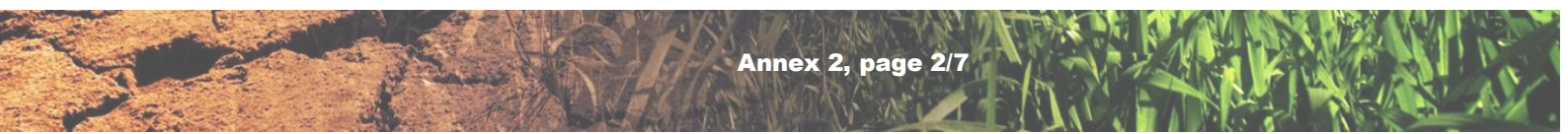
Annex 2 Verification Finding List





Non-Conformities

None



Clarifications

Finding CL #01	MR version 01 Oil/Gas data																		
Clarification request	<p>re- The project documentation fulfills all reporting obligations as given by the applicable regulations for UER activities (EU Regulation (EU) 2015/652 Annex 1 part 2 No. 1e) and 1h)). Therefore, the below Oil Production Related Data during this monitoring period is necessary to be reported:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #1a4a8a; color: white;"> <th style="width: 60%;">Parameter</th> <th style="width: 20%;">Unit</th> <th style="width: 20%;">Value</th> </tr> </thead> <tbody> <tr> <td>GHG intensity prior to project implementation</td> <td>g CO₂eq/MJ</td> <td style="text-align: center;">?</td> </tr> <tr style="background-color: #e0e0e0;"> <td>GHG intensity after reduction measures</td> <td>g CO₂eq/MJ</td> <td style="text-align: center;">?</td> </tr> <tr> <td>Crude oil amount for this monitoring period</td> <td>kg</td> <td style="text-align: center;">?</td> </tr> <tr style="background-color: #e0e0e0;"> <td>Crude oil amount for this monitoring period</td> <td>MJ</td> <td style="text-align: center;">?</td> </tr> <tr> <td>Reporting year gas-to-oil ratio (GOR) in solution</td> <td>m³/t</td> <td style="text-align: center;">?</td> </tr> </tbody> </table>	Parameter	Unit	Value	GHG intensity prior to project implementation	g CO ₂ eq/MJ	?	GHG intensity after reduction measures	g CO ₂ eq/MJ	?	Crude oil amount for this monitoring period	kg	?	Crude oil amount for this monitoring period	MJ	?	Reporting year gas-to-oil ratio (GOR) in solution	m ³ /t	?
Parameter	Unit	Value																	
GHG intensity prior to project implementation	g CO ₂ eq/MJ	?																	
GHG intensity after reduction measures	g CO ₂ eq/MJ	?																	
Crude oil amount for this monitoring period	kg	?																	
Crude oil amount for this monitoring period	MJ	?																	
Reporting year gas-to-oil ratio (GOR) in solution	m ³ /t	?																	
Clarification sponse	<p>Re- The oil production related data has been provided as shown below.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #1a4a8a; color: white;"> <th style="width: 60%;">Parameter</th> <th style="width: 20%;">Unit</th> <th style="width: 20%;">Value</th> </tr> </thead> <tbody> <tr> <td>GHG intensity prior to project implementation</td> <td>g CO₂eq/MJ</td> <td style="text-align: center;">95.29</td> </tr> <tr style="background-color: #e0e0e0;"> <td>GHG intensity after reduction measures</td> <td>g CO₂eq/MJ</td> <td style="text-align: center;">16.02</td> </tr> <tr> <td>Crude oil amount for this monitoring period</td> <td>kg</td> <td style="text-align: center;">9,448,000</td> </tr> <tr style="background-color: #e0e0e0;"> <td>Crude oil amount for this monitoring period</td> <td>MJ</td> <td style="text-align: center;">402,673,760</td> </tr> <tr> <td>Reporting year gas-to-oil ratio (GOR) in solution (from 01/01/2022 to 31/12/2022)</td> <td>m³/t</td> <td style="text-align: center;">1878.9</td> </tr> </tbody> </table> <p>The calculation spread sheet has also been provided as the evidence for the calculation process of the GHG intensity.</p>	Parameter	Unit	Value	GHG intensity prior to project implementation	g CO ₂ eq/MJ	95.29	GHG intensity after reduction measures	g CO ₂ eq/MJ	16.02	Crude oil amount for this monitoring period	kg	9,448,000	Crude oil amount for this monitoring period	MJ	402,673,760	Reporting year gas-to-oil ratio (GOR) in solution (from 01/01/2022 to 31/12/2022)	m ³ /t	1878.9
Parameter	Unit	Value																	
GHG intensity prior to project implementation	g CO ₂ eq/MJ	95.29																	
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Crude oil amount for this monitoring period	kg	9,448,000																	
Crude oil amount for this monitoring period	MJ	402,673,760																	
Reporting year gas-to-oil ratio (GOR) in solution (from 01/01/2022 to 31/12/2022)	m ³ /t	1878.9																	

Assessment Method for clarification	<input type="checkbox"/> Inspection <input type="checkbox"/> Interview <input checked="" type="checkbox"/> Check of docs <input type="checkbox"/> Sample	<input checked="" type="checkbox"/> calculation <input type="checkbox"/> Comparison <input type="checkbox"/> Other
Final Conclusion	<p>The necessary data provided in the form of a spreadsheet : "GHG intensity calculation sheet_Chuangdong_MP5.xlsx" dated 21/02/2023.</p> <p>The data has been checked and found in compliance with the requirement of (EU) 2015/652 Annex 1 part 2 No. 1e) and 1h). Furthermore, the data has been confirmed with the Southwest Oilfield and found consistent.</p> <p>Hence the CL is closed.</p>	
Assessment	<input type="checkbox"/> material non-conformity <input checked="" type="checkbox"/> non-material non-conformity	<input type="checkbox"/> Forward Action Request <input type="checkbox"/> issue closed

Finding CL #02	MR version 01 C.1 Operators and training records	
Clarification request	Please clarify whether there were changes in operator personnel during this monitoring period, and if so, were there technical training for new staff	
Clarification response	<p>Re- During this monitoring period, the processing station recruited two new employees and conducted annual training for all employees, including new employees, on October 5, 2022. The training record has been provided as an evidence.</p> <p>The training content mainly includes carbon emission monitoring content, environmental protection, safe production, human rights protection, etc.</p>	
Assessment Method for clarification	<input type="checkbox"/> Inspection <input type="checkbox"/> Interview <input checked="" type="checkbox"/> Check of docs <input type="checkbox"/> Sample	<input type="checkbox"/> calculation <input type="checkbox"/> Comparison <input type="checkbox"/> Other
Final Conclusion	<p>The documented evidence named “Training Record.pdf ” dated 21/02/2023 provided with the clarification, has been checked against the latest employment records of the Operators.</p> <p>It is found that during this monitoring period, there were two staff added and they have all been trained with the whole operating team in terms of QHSE sessions in the periodic training course at head office on 05/10/2022.</p> <p>Hence the CL is closed.</p>	
Assessment	<input type="checkbox"/> material non-conformity <input checked="" type="checkbox"/> non-material non-conformity	<input type="checkbox"/> Forward Action Request <input checked="" type="checkbox"/> issue closed

Finding CL #03	MR version 01 C.4 validity period of the calibration reports	
Clarification request	The validity period of the calibration reports is about to expire (till 19/01/2023), please confirm that the re-calibration action for subsequent monitoring periods has started.	
Clarification Response	The flowmeters have been calibrated by a qualified third-party agency at the beginning of January 2023, namely January 9, 2023. The new calibration reports for the two flowmeters have been provided for reference.	
Assessment Method for clarification	<input checked="" type="checkbox"/> Inspection <input type="checkbox"/> Interview <input checked="" type="checkbox"/> Check of docs <input type="checkbox"/> Sample	<input type="checkbox"/> calculation <input type="checkbox"/> Comparison <input type="checkbox"/> Other
Final Conclusion	<p>The copy of the latest calibration report “Calibration report for the flowmeters 2023.pdf ” dated 09/01/2023 has been checked and found consistent information on the flow-meters and no time interval with the previous calibration dated 20/01/2022.</p> <p>Hence the implementation of the calibration procedure can be confirmed credible and eligible, the CL is closed.</p>	
Assessment	<input type="checkbox"/> material non-conformity <input checked="" type="checkbox"/> non-material non-conformity	<input type="checkbox"/> Forward Action Request <input type="checkbox"/> issue closed

Forward Action Request

FAR #01	FAR01 from Validation report	
Forward Action Request	A confirmation is required at verification stage that the upstream emission reductions are not offset simultaneously against the NDCs of the host country (PRC) or third countries in accordance with obligations according to the Paris Agreement.	
Response	Will be confirmed in next verification process.	
Assessment Method for clarification	<input checked="" type="checkbox"/> Inspection <input checked="" type="checkbox"/> Interview <input checked="" type="checkbox"/> Check of docs <input type="checkbox"/> Sample	<input type="checkbox"/> calculation <input type="checkbox"/> Comparison <input type="checkbox"/> Other
Final Conclusion		
Assessment	<input type="checkbox"/> material non-conformity <input type="checkbox"/> non-material non-conformity	<input checked="" type="checkbox"/> Forward Action Request <input type="checkbox"/> issue closed

Annex 3 List of Reviewed Evidences

Reviewed Evidences	
General background information	<ul style="list-style-type: none"> /1/ COUNCIL DIRECTIVE (EU) 2015/652 of 20 April 2015 laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels /2/ DIN EN ISO 14064-2:2012; Greenhouse gases – Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements /3/ Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 /4/ COMMISSION REGULATION (EU) No 600/2012 of 21 June 2012 on the verification of greenhouse gas emission reports and tonne-kilometre reports and the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council /5/ COMMISSION REGULATION (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council
Project-specific background:	<ul style="list-style-type: none"> /6/ Approved baseline methodology AM0009: "Recovery and utilization of gas from oil wells that would otherwise be flared or vented" (Version 07.0) /7/ UNFCCC CDM methodological tool 03: "Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion" – Version 03.0 /8/ UNFCCC CDM methodological tool 05: "Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation" (Version 03.0)
Project-specific documents	<ul style="list-style-type: none"> /9/ Project Design Document version 02. dated 07/05/2021. /10/ Validation report-MC-UER-2021-014 version 01 dated 17/05/2021 /11/ MR_AG recovery in Chuandong_MP5_ver01_30/01/2023.pdf /12/ MR_AG recovery in Chuandong_MP5_ver02_21-02-2023.pdf /13/ Business license of the project owner /14/ Approval of Commercial Operation issued on 18/03/2021 /15/ EIA of the project dated July 2020 /16/ Project design plan in Feasibility Study Report of the project, dated May 2020 <p>Records of measurement instrument:</p> <ul style="list-style-type: none"> /17/ Weekly production data (from October 2022 to December2022) /18/ Production daily report (from October 2022 to December2022) /19/ Flowmeter instruction manual /20/ Dry gas calculated values from material balance covering this monitoring period as listed in the ER sheet

Reviewed Evidences

- /21/ Monthly Receipt Notices for recovered gas issued by Chengdu Natural Gas Chemical Plant of PetroChina Southwest Branch covering this monitoring period
- /22/ Recovery service agreement of associated gas.pdf
- /23/ Monitoring Manual of the operator
- /24/ Latest training records of the operator dated 05/10/2022

Records of Sampling and Laboratory testing:

- /25/ Weekly NCV Chemical Analysis Report for recovered gas by the testing laboratory (from 01/10/2022 to 31/12/2022);
- /26/ Weekly NCV Chemical Analysis Report for dry gas by the testing laboratory (from 01/10/2022 to 31/12/2022) .

Records of Calibration:

- /27/ Certificate of Metrological Authorization of Dazhou City Quality and Technical Supervision, Inspection and Testing Center, issued by Sichuan Provincial Market Supervision Administration valid from 04/03/2019 to 04/03/2024
- /28/ Certificate of ISO17025 to Natural Gas Quality Supervision and Inspection Center for Petroleum Industry, valid from 08/08/2018 to 07/08/2024
- /29/ Calibration reports of the flow meters dated 20/01/2022 (valid to 19/01/2023)
- /30/ Calibration reports of the flow meters dated 09/01/2023 (valid to 08/01/2024)

Calculation sheets and raw data:

- /31/ ER for MR_AG recovery in Chuandong_MP5_ver01-30-01-2023.xlsx
- /32/ GHG emission per unit of energy calculation sheet (in gCO₂eMJ)-Chuandong_MP5.xlsx

Photos (on-site inspection 11 February 2023)



Annex 4

List of Interviewed Persons



**Teilnehmerliste / Participant List:****Allgemein / General**

Auftragsnummer / Order No.	UER078 - verification for 5 th MP (from 01/10/2022 to 31/12/2022)
Firma / Company	PO and Operator: Xinjiang KL Clean Energy Co., Ltd. - Contracting Party: GORD
Anlage / Project	Associated Gas Recovery and Utilization in Chuandong area
Datum des Audits / Date of Audit	11 February 2023 on-site visit

Name / Name	Funktion / Function	Unterschrift / Signature
Robin Wang	Verico, Lead Auditor	
Werner Betzenbichler	Verico, Auditor	
Jiacheng Song	Xinjiang KL Clean Energy Co. Ltd Director	梁嘉诚
Yuming Liu	Xinjiang KL Clean Energy Co. Ltd staff	刘玉明
Li Sun	Associated gas recovery station staff	孙立
Fei Zhao	Associated gas recovery station staff	赵菲
Wenjie Zhong	Associated gas recovery station staff	钟文杰
Yingying Zhu	Associated gas recovery station staff	朱莹莹
Bing Wang	Chengdu Natural Gas Chemical General Factory. staff	王兵

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Na Li	Chengdu Natural Gas Chemical General Factory. staff	李娜
Canyang Huang	Guojiaping Village, villager	黄灿阳
Xinyu Hu	Guojiaping Village, villager	胡香玉

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Annex 5

Appointment Certificates





Ernennungsurkunde

Certificate of Appointment

Robin Wang

erfüllt die Voraussetzungen der Prüfstelle der verico SCE und wird ernannt zum
fulfills the requirements according to the guidelines of the verification body of verico SCE and is
appointed as

Auditor / Lead Auditor

für Verifizierungen nach ISO 14064-3

für die folgenden Scopes/Sektoren
for the following scopes/sectors

ISO14064-1: 1, 2, 16

ISO14064-2: 1, 3, 8, 10 (CDM Sektoren)

Die Anforderungen des QM-Handbuches der Prüfstelle von verico SCE sind bindend.

The requirements of the QM-Manual of the verification body of verico SCE are binding.

Diese Ernennung gilt 5 Jahre.

This appointment is valid for 5 years.

Zertifikat Nr. 14064 A29 ISO14064-3

ZERTIFIKAT CERTIFICATE

Langenbach, 28.11.2020

Javier Vallejo Drehs

ver-A10-2013-05-24

Annex B4 - Ernennungsurkunde RobinWang ISO14064_1.docx Seite 1/1





Ernennungsurkunde

Certificate of Appointment

Werner Betzenbichler

erfüllt die Voraussetzungen der Prüfstelle der verico SCE und wird ernannt zum
fulfills the requirements according to the guidelines of the verification body of verico SCE and is
appointed as

Auditor / Lead Auditor / Technischer Rezensent

für Verifizierungen nach ISO 14064-3

für die folgenden Scopes/Sektoren
for the following scopes/sectors

ISO14064-1: 1, 2, 4, 6, 7, 8 (AVR Scopes), 14, 17, 20

ISO14064-2: 1-13 (CDM Sektoren)

Die Anforderungen des QM-Handbuches der Prüfstelle von verico SCE sind bindend.

The requirements of the QM-Manual of the verification body of verico SCE are binding.

Diese Ernennung gilt 5 Jahre.
This appointment is valid for 5 years.

Zertifikat Nr. 14064 A9 ISO14064-3

Dr. Kolmetz

Langenbach, 6.7.2018

ver-A10a-2013-06-24

ZERTIFIKAT CERTIFICATE





Ernennungsurkunde

Certificate of Appointment

Luis Robles Olmos

erfüllt die Voraussetzungen der Prüfstelle der **verico** SCE und wird ernannt zum
fulfills the requirements according to the guidelines of the verification body of **verico** SCE and is
appointed as

Lead Auditor / Technical Reviewer

für die folgenden Scopes/Sektoren
for the following scopes/sectors

ISO14064-1: 1, 6, 14, 15, 21

ISO14064-2: 1, 3, 7, 10, 13, 14, 15

CLIMA: 1, 3, 4, 7, 13, 15, 17

Die Anforderungen des QM-Handbuches der Prüfstelle von verico SCE sind bindend.

The requirements of the QM-Manual of the verification body of verico SCE are binding.

Diese Ernennung gilt 5 Jahre.

This appointment is valid for 5 years.

Zertifikat Nr. 14064 A16 ISO14064-3

Langenbach, 08.03.2018

Javier Vallejo Drehs

ZERTIFIKAT CERTIFICATE



