

# VERIFICATION REPORT

## VE-UER-049V1

**Verification of the Upstream GHG Emission  
Reductions for the project:**

**‘Zhuangsanlian Associated Gas Recovery and  
Utilization Project’**

**For the period: 01/01/2020 to 31/12/2020  
Monitoring Period Number: 1  
Certifying the UER batch**

**0049\_VERI\_20181120\_2020\_035.8816N,108.1773E\_000000,015910**

**According to ISO14064 Part 2 and Austrian  
‘Kraftstoffverordnung’ dated 24/June/2020**

**Version 1.0, dated 30/03/2021**

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## Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
DAkKS	Deutsche Akkreditierungstelle (German Accreditation Body)

EU ETS	European Union Emissions Trading Scheme
FAR	Forward Action Request
FQD	Fuel Quality Directive
GHG	Greenhouse Gases
GORD	Gulf Organisation for Research & Development
PP	Project Participants
ISO	International Standard Organisation
PDD	Project design Document
TR	Technical Reviewer
UER	Upstream Emission Reduction
UNFCCC	United Nations Framework Convention on Climate Change

## 1. Scope of Verification

verico SCE, an accredited verification body<sup>1</sup> 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 – Zhuangsanlian Associated Gas Recovery and Utilization Project» in order to confirm compliance with requirements of ISO 14064 Part 2, and Austrian Kraftstoffverordnung(KVO) dated 24 June 2020 implementing 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:

- implementation of the project in accordance with the validated project design document (PDD version 3 dated 11 September 2020; and
- amount of emission reductions achieved during the 1<sup>st</sup> monitoring period (1 January 2020 – 31 December 2020).

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 orderer for the creation of UERs. 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 COVID-19 pandemic causing travel restrictions did not enable verico's lead auditor of the verico auditor pool to visit the project area. verico SCE considered after an in-depth risk analysis to run a so-called remote audit by the Lead Auditor.

The verification included web-conferences/web-audits by the verification team with appointment as lead verifier and covering all competences in the relevant sectoral scopes. A findings list has been prepared and handed over to the project participants 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 5% materiality threshold has been applied with regard to the total amount of emission reductions and in analogy to the EU ETS scheme (and CDM specifications), of which the quality requirements are applicable according to the Fuel Quality Directive.

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<sup>1</sup> DAkkS Accreditation ID D-VS-19003-01-01

In order to fulfilling the internal qualification requirements of verico SCE for final appraisal of this report, an independent technical review has been carried out to the 'final verification report'. This review was done by a lead verifier, which has not been part of the main verification team.

The remote audit has been carried out in the period from 10 February 2021 until 22 February 2021.

## 2. Project Details

<b>Project Title</b>	Zhuangsanlian Associated Gas Recovery and Utilization Project
<b>Brief Description</b>	<p>The purpose of the project activity is to recover the associated gas from remote &amp; scattered oil wells in Changqing Oilfield that would be flared in the absence of the project activity, and to process the recovered gas into dry natural gas and light hydrocarbon.</p> <p>The project activity includes the installation of an associated gas recovery, processing and transportation system and three sets of 450kW natural gas power generation units (2 for operation and 1 for backup). The associated gas recovered from oil wells are to be pre-treated, including dehydration, purification, compression and condensate-separation and then generated into dry natural gas and light hydrocarbon. The light hydrocarbon will be used for external supply, while the dry gas will be consumed in the newly built on-site natural gas based generators and other heating equipment for power generation to meet the energy demand of auxiliary equipment. The project started commissioning in November 2018 with a total operational lifetime of 12 years, and the estimated annual operating hour is 7,920 hours. The daily processing capacity of the associated gas is <math>3.0 \times 10^4</math> Nm<sup>3</sup>/d, during the operating period, the project generates about 5,940,000 Nm<sup>3</sup> dry gas and produces 5,148t light hydrocarbon annually on average.</p>
<b>Project site</b>	<p>Coordinates of the physical site of the project:</p> <p>Longitude: 108.1773°E, Latitude: 35.8816°N.</p> <p>The project is located in Beizhang Village, Tai'e Township, Heshui County, Qingyang City, Gansu Province, China. which is within the range of No. 12 oil plant of Changqing Oil field.</p>
<b>Project Operator</b>	<p>Sinopec Xinxing Shaanxi Xinyuan Technology Co. Ltd.</p> <p>Tianlang Jingkai Center, No.55 of Mingguang Road, Economic and Technology Development Zone; Xi'an City, Shaanxi Province, China</p>
<b>UER owner/buyer</b>	<p>OMV Downstream GmbH</p> <p>Trabrennstraße 6-8, 1020 Wien / Vienna, Austria</p>
<b>Validated PDD incl.</b>	ISO 14064:2 GHG project "Zhuangsanlian Associated Gas

<b>Monitoring Plan</b>	Recovery and Utilization Project” Project Design Documentation Version 3 dated 11 September 2020
<b>Final version of the Monitoring Report</b>	Project Monitoring Report Version 2.1 dated 29 March 2021 For the period: 01/01/2020 to 31/12/2020
<b>Applied methodology</b>	AM0009 “Recovery and utilization of gas from oil fields that would otherwise be flared or vented” Version 07.0
<b>Verified UERs</b>	<b>15,910 tCO<sub>2</sub>e</b>
<b>Certified UERs</b>	<b>15,910 tCO<sub>2</sub>e</b>
<b>UER Batches ID<sup>2</sup></b>	<b>0049_VERI_20181120_2020_035.8816N,108.1773E_000000.015910</b>

### 3. Assessment Approach

#### a. Contract Review

Based on submitted information on the project idea, its location, relevant stakeholders and the applied methodology, an offer was prepared and presented to the client and finally accepted. The scope of accreditation of verico SCE as accredited validation and verification body covers all relevant scopes (here IAF MD14 scopes 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

Scopes: 1, 3, 8,10

<sup>2</sup> Created by adapting the recommendation in Annex A of the EU guidance note; the first four digits stand for verico's unique project identifier, while “VERI” stands for verico as verifying entity;

Further Auditor:

Werner Betzenbichler      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).

As preparation for the assessment, the project participant has submitted the project documentation and calculated emissions estimations before starting the audits. By reviewing and evaluating these documents a strategic and risk analysis has been performed in order to develop an 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 and underlying data records covering the monitoring period. This document serves as the basis for the assessment presented herewith. The reporting period starts on 01 January 2020 and ends on 31 December 2020 (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 schedule prior to the conduct of the actual Verification Audit, which was finally shared with the client to ensure appropriate arrangements with regard to the eventual Verification Audit.

Area of concern	Risk	Assessment method
Technical /physical project boundaries	Connected oil wells and Gas recovery with respect to Point F to monitor the volume of recovered gas; metering at point	Interview and inspection of <ul style="list-style-type: none"> <li>Evidences presented on engineering and</li> </ul>

Area of concern	Risk	Assessment method
	D to monitor the dry gas flow consumed by the project activity for the respective processing stations.	procurement contract reports <ul style="list-style-type: none"> <li>• Feasibility Study Report,</li> <li>• Remote audit</li> </ul>
Start date of the project activity	Confirmation with appropriate evidences	Interviews Document review
Expected reductions	Inappropriate forecasts / calculations	Interviews Document review
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 version 3 / registration scheme	Remote audit Document review Photos passed from the site
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 Onsite Dry Gas consumption	Interviews Document review and evidence thereof
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

For further preparation of respective Verification Audits, the verico SCE verification checklist was amended regarding agreed verification objectives between the client and the verifiers.



#### d. Verification Audit - Photos Inspections

The remote-audit was carried out by the lead auditor in the period from 10 February 2021 to 22 February 2021. During the remote-audit mission, the implementation of monitoring plan, operation of gas processing system, on-site power generation system, monitoring system as well as gas sampling approaches were conducted (including photo evidences).

At the end of the audit a findings list was issued and discussed with the project proponents indicating the need for completing the monitoring report. Proofs and new version of the monitoring report were delivered on 20 February 2021. All proofs (records, photos, databases, documents) in response to the findings list were 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 images provide some impressions of points discussed during the verification audit:





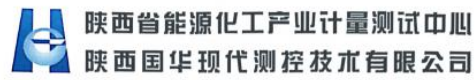
Image 1 and 2: Zhuangsanlian Station full view with flare.



Image 3: Recovered gas flow-meter nameplate.



Image 4: Dry gas flow-meter nameplate.



### 检定证书

Verification Certificate

证书编号: J2022340400001  
Certificate No.

送检单位:	中国石化集团新星陕西能源科技有限公司 合水分公司
Customer	
计量器具名称:	智能旋进漩涡流量计
Name of Instruments	
型号规格:	LUXB-DN150
Type/Specification	
出厂编号:	YK1805024
Serially Number	
制造单位:	天津斯秘特精密仪表股份有限公司
Manufacturer	
检定依据:	JJG1121-2015
Verification Reference	
检定结论:	符合1.5级
Verification Conclusion	



批准人: 陈瑾  
Approved by

核验员: 赵清  
Checked by

检定员: 孟海龙  
Verified by

检定日期: 2019年10月27日  
Verification Date  
有效期至: 2021年10月26日  
Valid Until

计量检定机构授权证书号: (陕)法计(2016)610000182 网址: www.guohuacekong.com  
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地址 (Add): 中国陕西省西安市经开区尚稷路 8989 号 C 座 第 1 页 共 2 页

Image 5 and 6: Accreditation of the calibration body and report for flow-meters.

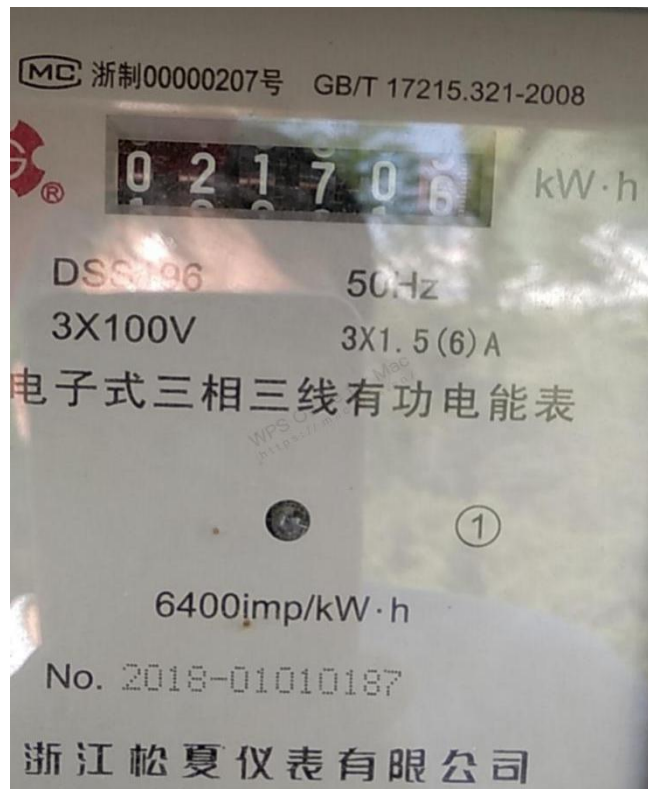


Image 7: Electricity meter for grid power consumed.



ISO/IEC 17025 认可证书

名称: 陕西省能源质量监督检验所  
 地址: 陕西省西安市雁塔路南段 129 号  
 注册号: CNAS L0145  
 认可依据: ISO/IEC 17025 以及 CNAS 特定认可要求  
 生效日期: 2018 年 08 月 13 日 截止日期: 2022 年 07 月 21 日

ISO/IEC 17025 认可证书

序号	检测对象	项目/参数		检测
		序号	名称	
1	天然气	1	发热量、相对密度	天然气 发热量、密度、相对密度 2014
		2	组成(二氧化碳)	天然气的组成分析 气相色谱
		3	组成(氧气)	天然气的组成分析 气相色谱
		4	总硫	天然气 含硫化合物的测定 第 11060.4-2017
		5	硫化氢含量	天然气 含硫化合物的测定 第 11060.1-2010
		6	天然气取样	天然气取样导则 GB/T 13609
2	原油	1	有机氯含量	原油有机氯含量 GB/T 18612

Image 8 and 9: Accreditation and specific scope of the gas testing body

### e. Specific assessment plans 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 checklist with the final results is provided in Annex 1 of this verification report.

### f. 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 verification carried out on the basis of the internal and external verification report. If necessary, the

verification 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 Sergio Degener , who is appointed as Technical Reviewer of ISO 14064 Part 2 activities and CDM scopes 1,3,4,5,10,11,13 and 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 finally proven to be correct at the end of the verification process. All procedures relevant to the project have been provided and their application on the project activity properly checked.

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). Special attention was paid in this verification process in the assessment of raw gas (total recovered gas measured at point F) and dry gas (to be combusted in gas generators, measured at point D) daily records.

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 PDD version 3.0 dated 11 September 2020 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 and supports the operator to comply with his legal requirements in an environmentally sound manner.

Also, it is confirmed with the project proponent and assured by the verification team that in the process of oilfield development, under the conditions where there is no facility for associated gas

recovery and utilization, regulations confirm that the gas should be fully flared. There is no legal obligation to reduce emissions stemming from the flaring of associated gas from the oil recovery process as given in the context of this project activity. Furthermore, there are no legal requirements introduced since validation, which would have changed the conditions for determining the baseline scenario.

### **c. Accuracy and Completeness**

By reviewing evidence and pertaining document for the recovered gas at Point F and particularly parameters that are monitored ex-post and require metering:

1. Volume of the total recovered gas measured at point F;
2. Chemical composition sampled for the total recovered gas measured at point F;
3. Volume of the total produced dry gas measured at point D used for own consumption by the Gas generators;
4. Chemical composition sampled for the dry gas measured at point D;
5. Grid power consumed by the project measured at point E.

It can be confirmed that all relevant parameters for the relevant ex-post parameters have been identified correctly and monitored accordingly.

All parameters (gas volume, composition analysis and grid power) 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 and No 2067/2018, 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 metering system where data monitored by the relevant instrumentation needed for the project's accuracy are electronically transferred to the central control system of the plant operator where it is recorded automatically.

Monitored monthly aggregated data of gas volume and chemical composition data is collated to the project operator on the last day of each month for billing purposes. This aggregated data is recorded from daily readings of monitoring instruments and is archived by means of both electronic and paper backup. Typical instruments at the processing station that are linked to the emission estimations/monitoring have been identified in the monitoring plan and whose calibration records were ascertained.

Verification process pay special attention to monitoring instruments at the station, and specifically to gas flow meter at point F for associated gas and at point D for dry gas power generation. Records of past data are maintained in compliance with the legal requirements.

The updated information of monitoring instruments is shown in the following table ("Table 3-2 Specification of the flow meters for monitoring" in the Monitoring Report version 2.1 dated 29 March 2021):

**Meters information of the Project**

Monitoring parameter	Type of meter	Specification	Identification number	Accuracy	Calibration date	Valid period
$V_{F,y}$	Vortex flow- meter	LUXB-DN150	YK1805024	1.5	27/10/2019	26/10/2021
$FC_{i,y}$	Vortex flow-meter	LUXB-DN65	YK1805025	1.5	27/10/2019	26/10/2021
$EC_{PJ,j,y}$	Electrical meter	DSS196	2018-01010187	1.0	26/11/2019	25/11/2021

No further data gaps remained at the end of the assessment process of 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 01/01/2020 till 31/12/2020.

## f. Assessment of Uncertainties

Project specific uncertainty analysis has been performed confirming that the Monitoring Report meets the uncertainty requirements as specified by the EU ETS. The verification process included



a check of the uncertainty of individual meters and laboratory devices. It can be confirmed that the available data meets the uncertainty requirements as specified by the EU ETS.

### **g. Findings and Non-Conformities**

A detailed Finding List is provided as Annex 2 to this report. The verification team identified three Corrective Action Requests and two Clarification Request. Several issues were related to the need of further evidences for substantiating information provided by the Monitoring Report. All findings have been closed before finalising the verification process.

No further Forward Action Requests (as instructions to the verifier for next verification) or recommendations of improvement were remaining after the revision of the Monitoring Report.

## 5. Verification Statement

verico SCE has undertaken the verification of the GHG emission reduction project «*Zhuangsanlian Associated Gas Recovery and Utilization Project*» implemented by the project proponent «Sinopec Xinxing Shaanxi Xinyuan Technology Co. Ltd.», covering the monitoring period from 01 January 2020 to 31 December 2020 based on the requirements of ISO 14064 Part 2 “Specification with guidance at the project level for quantification, monitoring and reporting of GHG emissions reductions or removal enhancements” and the KVO.

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.

Through the verification process, the verification team identified three Corrective Action Requests and two Clarification Requests. All findings have been closed before finalising the verification process. No further Forward Action Requests or recommendations of improvement were remaining after the final revision and edition of the Monitoring Report.

The verification team is therefore of the opinion that the GHG Assertion of the project «*Zhuangsanlian Associated Gas Recovery and Utilization Project*» is implemented as planned and described in the Project Design Document version 3 dated 11 September 2020 for the creation of stated emission reductions. 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.

The verified amount of emission reductions during the monitoring period from 01 January 2020 to 31 December 2020 as described in the Monitoring Report version 2.1 dated 29 March 2021, amounts to:

**15,910 t CO<sub>2e</sub>.**

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

**0049\_VERI\_20181120\_2020\_035.8816N,108.1773E\_000000,015910**

is established exclusively on verified emission reductions achieved during the monitoring period from 01 January 2020 to 31 December 2020 by the GHG project « Zhuangsanlian Associated Gas Recovery and Utilization Project ».

Peking, 30/03/2021



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Robin Wang  
**Lead Auditor**

Kleinostheim, 30/03/2021

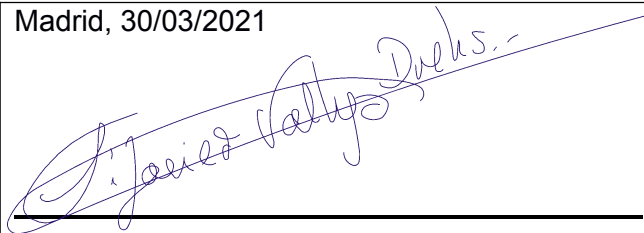


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Sergio Degener  
**Technical Reviewer**

**Released:**

Madrid, 30/03/2021



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Javier Vallejo Drehs  
**Verification body verico SCE**

# **Annex 1:**

## **Checklist of the Verification Assessment Plan**

Area of concern	Risk	Assessment method	Additional Information requested
Technical /physical project boundaries	Connected oil wells and Gas recovery with respect to Point F to monitor the volume of recovered gas; metering at point D to monitor the dry gas flow consumed by the project activity for the respective processing stations.	Interview and inspection of <ul style="list-style-type: none"> <li>• Evidences presented on engineering and procurement contract reports</li> <li>• Feasibility Study Report,</li> <li>• Proofs regarding amount flared in historical circumstances</li> </ul>	<ul style="list-style-type: none"> <li>▪ Daily meter reading record for all 6 stations</li> </ul>
Start date of the project activity	Confirmation with appropriate evidences	Interviews Document review	Commercial date of operations for all 6 stations
Expected reductions	Inappropriate forecasts / calculations	Interviews Document review	
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 version 2.0 dated 26/08/2020 registration scheme	Remote audit Document review Photos passed from the site	-
Calculations / estimations	Excel sheets for ER calculation Data correctness and quality, and	Review of excel files (initial and final versions) Historical and monitoring period	<ul style="list-style-type: none"> <li>▪ Daily meter reading record for all 6 stations</li> <li>▪ Dry Gas onsite consumption at point D</li> </ul>

Area of concern	Risk	Assessment method	Additional Information requested
	estimations	records	
Project Emissions	Quality of recovered gas Onsite Dry Gas consumption	Interviews Document review & evidence thereof	-
Monitoring Plan	Identification of Key instruments Correct monitoring locations Monitoring Parameters	Review of excel-tables Documentation Review Interview	Management structure for data collection and date archiving

SECTION 1. Project plan (Project description)	Verified situation	Conclusion
<b>General description of the project</b>		
1.1. Does the GHG Report provide general information of the project?	The UER Project Monitoring Report “ISO 14064:2 GHG project Zhuangsanlian Associated Gas Recovery and Utilization Project” for the 1 <sup>st</sup> monitoring period: 01/01/2020-31/12/2020 version 2.1 dated 29/03/2021, presents general information of the project.	OK
1.2. Is there any open issue in the validation / previous verification?	Not applicable	
<b>Implementation status of the project activity</b>		
1.3. Is the project location indicated? Confirm geographical coordinates	Coordinates of the project site have been included in the final PDD version 3 dated 11/09/2020 for this project activity as well as in the final Monitoring	OK

SECTION 1. Project plan (Project description)	Verified situation	Conclusion
	Report version 2.1 dated 29/03/2021.	
<p>1.4. Are all GHG sources relevant to the project identified? Is any emission source missed? Check the site lay-out.</p>	<p>Project boundary has well covered and identified all the GHG sources such as the location of the Point F and point D respectively, for the Zhuangsanlian Processing Station as applicable. This physical infrastructure and processes were confirmed by the Lead Auditor by means of remote audit.</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 validation report (VS-3291941) dated 14/09/2020.</p>	OK
<p>1.6. By means of an remote audit: List each technical component and equipment and check design parameters and actual status of installation and / or operation. Please check to ensure that all physical features of the proposed project are in place and operated according with the GHG program requirements. 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 relevant tables including in a graphic scheme as Figure 3.2 “Monitoring system of the project” of the Monitoring Report version 2.1 dated 29/03/2021.</p> <p>Technical components as flow meters and sampling points were verified by the Lead Auditor. It can therefore be demonstrated that all physical feature 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 with the Monitoring Report and conform to the actual situation described in the PDD version 3 dated 11/09/2020 and the Monitoring Report version 2.1 dated 29/03/2021.</p> <p>Information is included in Monitoring Report Section 3.3 “<i>Management structure and responsibilities</i>” including additional evidences were presented in</p>	OK.

SECTION 1. Project plan (Project description)	Verified situation	Conclusion
	support of the project implemented project quality system	
<p>1.8. Check QA/QC, management systems. Are procedures described and specified? Are they consistently applied?</p> <ul style="list-style-type: none"> <li>a. documented instructions, management manual</li> <li>b. documentation</li> <li>c. data archiving</li> <li>d. monitoring report</li> <li>e. cross-checking</li> <li>f. energy balance analysis (as relevant)</li> <li>g. internal audits / verification and management review</li> </ul>	<p>The Monitoring Report version 2.0 dated 19/02/2021 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 of the recovered gas at point F and dry gas point D by flowmeters, as well as grid power consumed by the project at point E (appropriately function and numbered), which readings are recorded once a month as aggregated data.</p> <p>As described in the Monitoring Report version 1.0 - Section 3.3. Monitoring Plan, “<i>The location settings of monitoring points and sampling points are shown in Figure 7-2. ...</i> “. However Figure 7-2 is not found in the Monitoring Report.</p> <p>Together with the response to Findings, the title of schematic diagram has been unified to be <i>Figure 3-2</i> in line with the validation PDD in the Monitoring Report version 2.1 dated 29/03/2021. CL#01 is closed.</p> <p>As described in Section 1.2 of the Monitoring Report version 1.0 dated 07/02/2021, the annual recovery capacity as estimated in the validated PDD is 9,900,000Nm<sup>3</sup> ( with production of 5,940,000 Nm<sup>3</sup> dry gas and 5,148t light hydrocarbon), however the monitored value during year 2020 is 11,429,697 Nm<sup>3</sup> (with 6,371,223 Nm<sup>3</sup> dry gas and 5,212 t light hydrocarbon ), which results in a significant increase in the emission reductions i.e. from 12,892 to 15,804.</p>	<p><b>CL#01</b></p> <p><b>CAR#01</b></p> <p>OK.</p>



SECTION 1. Project plan (Project description)	Verified situation	Conclusion
	<p>It is necessary to explain the reason of the over gas recovery.</p> <p>The reason has been specified in the response to the Findings that the annual volume of recovered gas estimated in the PDD was based on the FSR with a capacity range from 80%-120%, which means the acceptable volume of recovered associated gas during operation is from 7.92-11.88 million Nm<sup>3</sup> per year. Therefore the actual monitored value of recovered gas during 2020 is within the estimated capacity of the FSR. Hence the difference can be considered reasonable. CAR#01 is closed.</p>	
1.9. Has a procedure for emergency and abnormal situations been established?	Procedures were verified and confirmed by the Lead Auditor	OK
1.10. Has the system for qualification and training been established as relevant for the monitoring and management activities?	Training records of personnel were verified by the Lead Auditor	OK
1.11. Check the environmental report, license, permit and compliance to the local environmental legislation (if relevant).	Data has been submitted and checked accordingly	OK
1.12. Check contribution to sustainable development, in accordance with the GHG program.	N/A	OK
1.13. Check issues with local stakeholders, claims, complaints, etc.	Not relevant at the time of this 1 <sup>st</sup> monitoring period	OK

SECTION 2. Quantifying GHG emissions and/or removals	Verified situation	Conclusion
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SECTION 2. Quantifying GHG emissions and/or removals	Verified situation	Conclusion
2.1 Is the project location indicated? Confirm geographical coordinates	As per the Monitoring Report version 2.1 dated 29/03/2021.	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.	As per the Monitoring Report version 2.1 dated 29/03/2021.  The layout of the project site has been checked against the government's approval (ref.no. 1- Zhuangsanlian Project Approval dated 16/07/2018)	OK
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>As per the validated PDD Version 3 dated 11/09/2020 and the validation report (no.TS-3291941) dated 14/09/2020.</p> <p>As the opinions in the validation report, the Option A of the Methodological Tool 03 --<i>Tool to calculate project or leakage CO<sub>2</sub> emissions from fossil fuel combustion</i>-- Version 03.0 can be applied for the calculation methods of <b>BE</b> and <b>PE</b>, i.e. using parameters</p> <p><math>w_C</math> - weighted average mass fraction of carbon in fuel type (tC/volume unit of the fuel) and</p> <p><math>\rho_C</math> - weighted average density of fuel type (volume unit of the fuel)</p> <p>as an alternative to the AM0009 that uses sampled <i>NCV (net calorific value)</i> and default value <math>EF_{CO_2, methane}</math>.</p> <p>As a consequence, for parameter <math>w_{C,F,y}</math> for recovered gas and <math>w_{C,i,y}</math> for dry gas, Gas samples should regularly be taken at the corresponding location as</p> <p>Figure 3-1 of the PDD and the molar composition of each gas sample should be determined through chemical analysis following the relevant national standards</p>	OK

SECTION 2. Quantifying GHG emissions and/or removals	Verified situation	Conclusion
	<p>(GB/T 13610-2014 <i>Analysis of natural gas composition-Gas chromatography</i> and GB/T11062-2014 <i>Natural gas-Calculation of calorific values, density, relative density and Wobbe index</i>).</p> <p>Based on the molar composition, the carbon content should be determined for each sample in line with EN 15984-2017 or an equivalent standard for a combustion reference temperature of 20°C and the same metering reference condition used for parameter <math>V_{F,y}</math>.</p> <p>For parameter <math>p_{C,F,y}</math> for recovered gas and <math>p_{C,i,y}</math> for dry gas, Gas samples should regularly be taken at the corresponding location as Figure 3-1 of the PDD and the density of each gas sample should be determined through chemical analysis following the relevant national standards (GB/T13610-2014 <i>Analysis of natural gas composition-Gas chromatography</i> and GB/T11062-2014 <i>Natural gas-Calculation of calorific values, density, relative density and Wobbe index</i>)</p>	
<p>2.4 By means of an remote audit: List each technical component and equipment and check design parameters and actual status of installation and / or operation. Please check to ensure that all physical features of the proposed project are in place and operated according with the GHG program requirements. 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 layout of the project site (ref.no.4) with technical component list presented with the Monitoring Report.</p> <p>Components and equipment were verified against the technical information of the layout of the project site provided by project proponent .</p>	OK
<p>2.5 List any monitoring aspect that is not specified in</p>	<p>There are no additional aspects except for dry gas consumed by gas</p>	

SECTION 2. Quantifying GHG emissions and/or removals	Verified situation	Conclusion
<p>the criteria, procedure and/or methodology and check its compliance with the GHG program, for example:</p> <ul style="list-style-type: none"> <li>• additional monitoring parameters</li> <li>• monitoring frequency</li> <li>• calibration frequency.</li> </ul>	<p>generators ( <math>FC_{i,j,y}</math> ) and grid power consumed by the processing station(<math>EC_{PJ,j,y}</math> ).</p> <p>As described in Section 3.2. Data and Parameters Monitored of the Monitoring Report version 1.0 dated 07/02/2021, the input values should be the actually monitored data in this period, however it mentions “ <i>Value of data applied for the purpose of calculating expected emission reductions</i>” in the left column. It is necessary to be improved.</p> <p>With the response to the Findings, the text been corrected in the Monitoring Report version 2.1 dated 29/03/2021. CAR#02 is closed.</p> <p>As described in the Monitoring Report version 1.0 dated 07/02/2021,the monitored value of parameter <math>EC_{PJ,j,y}</math> in this period is 1000MWh whereas the value in Section 3.2. is “0”. It is necessary to be corrected.</p> <p>With the response to the Findings, the value has been corrected as 844.800MWh in the Monitoring Report version 2.1 dated 29/03/2021 in line with the electricity transaction receipts issued by the grid company. CAR#03 is closed.</p>	<p><b>CAR#02</b></p> <p><b>CAR#03</b></p> <p>OK</p>

SECTION 2. Quantifying GHG emissions and/or removals	Verified situation	Conclusion																				
<p>2.6 Has the data been generated at the frequency required by the applied criteria, procedure and or methodology?</p>	<p>Annual calibration is conducted for all key instrumentation identified by the project proponent with appropriate evidences (see also section 4.e of the main report):</p> <table border="1" data-bbox="943 501 1870 762"> <thead> <tr> <th>Monitoring parameters</th> <th>Type of meter</th> <th>Accuracy</th> <th>Calibration date</th> <th>Valid period</th> </tr> </thead> <tbody> <tr> <td><math>V_{F,y}</math></td> <td>Vortex flow- meter</td> <td>1.5</td> <td>27/10/2020</td> <td>26/10/2021</td> </tr> <tr> <td><math>FC_{i,y}</math></td> <td>Vortex flow-meter</td> <td>1.5</td> <td>27/10/2020</td> <td>26/10/2021</td> </tr> <tr> <td><math>EC_{PJ,j,y}</math></td> <td>Electrical meter</td> <td>1.0</td> <td>26/11/2019</td> <td>25/11/2021</td> </tr> </tbody> </table> <p>Period monitored under the Monitoring Report is properly covered by those calibrations.</p>	Monitoring parameters	Type of meter	Accuracy	Calibration date	Valid period	$V_{F,y}$	Vortex flow- meter	1.5	27/10/2020	26/10/2021	$FC_{i,y}$	Vortex flow-meter	1.5	27/10/2020	26/10/2021	$EC_{PJ,j,y}$	Electrical meter	1.0	26/11/2019	25/11/2021	<p>OK</p>
Monitoring parameters	Type of meter	Accuracy	Calibration date	Valid period																		
$V_{F,y}$	Vortex flow- meter	1.5	27/10/2020	26/10/2021																		
$FC_{i,y}$	Vortex flow-meter	1.5	27/10/2020	26/10/2021																		
$EC_{PJ,j,y}$	Electrical meter	1.0	26/11/2019	25/11/2021																		
<p>2.7 Have types of measurement instrumentation used been described and specified?</p>	<p>Satisfactorily</p>	<p>OK</p>																				
<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>As per above</p> <p>The valid period of flow-meters calibration is one year, in accordance with national standard “JJG 1121-2015 Verification Regulation of Vortex Precession Flowmeters”</p> <p>The valid period of electrical-meters calibration is two years. in accordance with national standard “JJG596-2012 Verification Regulation of Electrical Meters for Measuring Alternating-current Electrical Energy”</p> <p>The calibration body holds accreditation under ISO17025 within valid period.</p>	<p>OK</p>																				

SECTION 2. Quantifying GHG emissions and/or removals	Verified situation	Conclusion
2.9 Check responsibilities and authorities for monitoring and reporting. Are the monitoring results consistently recorded, reviewed and approved?	As per above	OK
2.10 Reporting period: Defined?	Yes. This is the first monitoring period, from 01/01/2020 to 31/12/2020	OK
2.11 If the GHG program includes the determination of environmental and/or social indicators, have the sustainable development indicators been monitored?	Not relevant	-
2.12 Check monitoring of Environmental and Social indicators (if relevant) <ul style="list-style-type: none"> <li>• implementation of measures</li> <li>• monitoring equipment</li> <li>• quality assurance procedures</li> <li>• external data.</li> </ul>	Not relevant	-

### Monitoring Parameters and Calibration Checklist:

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Volume of the total recovered gas measured at Point F in monitoring period	Recovered Gas																																										
Key Value	$V_{F,y}$ (Unit: Nm <sup>3</sup> )	<p>In Table 4-1 “Monthly data of monitored associated gas recovered by the project” Zhuangsanlian Station: 11,429,697 Nm<sup>3</sup></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>From</th> <th>To</th> <th></th> </tr> </thead> <tbody> <tr><td>01/01/2020</td><td>31/01/2020</td><td>893,860</td></tr> <tr><td>01/02/2020</td><td>29/02/2020</td><td>551,398</td></tr> <tr><td>01/03/2020</td><td>31/03/2020</td><td>925,600</td></tr> <tr><td>01/04/2020</td><td>30/04/2020</td><td>834,975</td></tr> <tr><td>01/05/2020</td><td>31/05/2020</td><td>939,465</td></tr> <tr><td>01/06/2020</td><td>30/06/2020</td><td>1,022,265</td></tr> <tr><td>01/07/2020</td><td>31/07/2020</td><td>1,070,346</td></tr> <tr><td>01/08/2020</td><td>31/08/2020</td><td>1,107,732</td></tr> <tr><td>01/09/2020</td><td>30/09/2020</td><td>1,060,035</td></tr> <tr><td>01/10/2020</td><td>31/10/2020</td><td>1,001,992</td></tr> <tr><td>01/11/2020</td><td>30/11/2020</td><td>1,005,368</td></tr> <tr><td>01/12/2020</td><td>31/12/2020</td><td>1,016,661</td></tr> <tr> <td colspan="2"><b>Total</b></td> <td><b>11,429,697</b></td> </tr> </tbody> </table>	From	To		01/01/2020	31/01/2020	893,860	01/02/2020	29/02/2020	551,398	01/03/2020	31/03/2020	925,600	01/04/2020	30/04/2020	834,975	01/05/2020	31/05/2020	939,465	01/06/2020	30/06/2020	1,022,265	01/07/2020	31/07/2020	1,070,346	01/08/2020	31/08/2020	1,107,732	01/09/2020	30/09/2020	1,060,035	01/10/2020	31/10/2020	1,001,992	01/11/2020	30/11/2020	1,005,368	01/12/2020	31/12/2020	1,016,661	<b>Total</b>		<b>11,429,697</b>
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Measuring frequency	Continuous metering, daily and monthly reading	Daily Monitoring Reports published																																										
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Recording (Manually / electronically / ...)	Onsite Measurement / records electronically stored	Measured volume is converted to the volume at the normal condition automatically using the temperature and pressure at the time to measurement.																																										
QA/QC How are values verified? (Cross-checked, double-checked)	Maintenance records and calibration records	- Cross-checked by appropriate personnel – whose qualification are issued by the appropriate supervision body																																										

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Volume of the total recovered gas measured at Point F in monitoring period	Recovered Gas
		<ul style="list-style-type: none"> <li>- Daily data of settlement documents for the purchase of raw gas are used to crosscheck the data from flow meter of raw gas at point F</li> <li>- Calibration records were verified</li> </ul>
Type of Monitoring Equipment and Identification number or Reference.	According to Monitoring Report	According to Monitoring Report version 2.0, Table 3-2 "Specifications..."
Period of operating time	Continuous	
Instrument type	Various types of flowmeters	Calibration in accordance with management procedures and relevant ISO standards.
Manufacturer, model and serial number	See appropriate evidence file and Section 4.e of the main report	-
Specific location	See appropriate evidence file	Point F.
Calibration dates	Embedded in file and Section 4.e of the main report	-
Company performing the calibration	Third Party	Shaanxi Guohua Modern Control Technology Co., Ltd.
Required calibration frequency represent good monitoring practices?	OK	OK
Is calibration valid for the whole reporting period?	Ok	OK
Maintenance	OK	OK
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Ok	OK
Key reporting risks	Data gaps & correction procedures  Check, when relevant	Proper operation has been confirmed by the Further Auditor



Aspect at monitoring period: 01/01/2020 to 31/12/2020	Volume of the dry gas measured at point D in monitoring period	Dry Gas
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Aspect at monitoring period: 01/01/2020 to 31/12/2020	Volume of the dry gas measured at point D in monitoring period	Dry Gas																																										
Key Value	FC <sub>i,j,y</sub> (Unit: Nm <sup>3</sup> )	<p>In Table 4-2 “Monthly data of monitored dry gas consumed by the project” Zhuangsanlian Station:6,371,223 Nm<sup>3</sup></p> <table border="1" data-bbox="1559 475 2101 906"> <thead> <tr> <th>From</th> <th>To</th> <th></th> </tr> </thead> <tbody> <tr><td>01/01/2020</td><td>31/01/2020</td><td>516,695</td></tr> <tr><td>01/02/2020</td><td>29/02/2020</td><td>254,519</td></tr> <tr><td>01/03/2020</td><td>31/03/2020</td><td>507,635</td></tr> <tr><td>01/04/2020</td><td>30/04/2020</td><td>497,734</td></tr> <tr><td>01/05/2020</td><td>31/05/2020</td><td>512,545</td></tr> <tr><td>01/06/2020</td><td>30/06/2020</td><td>567,902</td></tr> <tr><td>01/07/2020</td><td>31/07/2020</td><td>593,514</td></tr> <tr><td>01/08/2020</td><td>31/08/2020</td><td>592,731</td></tr> <tr><td>01/09/2020</td><td>30/09/2020</td><td>576,720</td></tr> <tr><td>01/10/2020</td><td>31/10/2020</td><td>582,893</td></tr> <tr><td>01/11/2020</td><td>30/11/2020</td><td>577,776</td></tr> <tr><td>01/12/2020</td><td>31/12/2020</td><td>590,559</td></tr> <tr> <td colspan="2" style="text-align: center;">Total</td> <td><b>6,371,223</b></td> </tr> </tbody> </table>	From	To		01/01/2020	31/01/2020	516,695	01/02/2020	29/02/2020	254,519	01/03/2020	31/03/2020	507,635	01/04/2020	30/04/2020	497,734	01/05/2020	31/05/2020	512,545	01/06/2020	30/06/2020	567,902	01/07/2020	31/07/2020	593,514	01/08/2020	31/08/2020	592,731	01/09/2020	30/09/2020	576,720	01/10/2020	31/10/2020	582,893	01/11/2020	30/11/2020	577,776	01/12/2020	31/12/2020	590,559	Total		<b>6,371,223</b>
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Recording (Manually / electronically / ...)	Onsite Measurement / records electronically stored	Measured volume is converted to the volume at the normal condition automatically using the temperature and pressure at the time to measurement.																																										
QA/QC How are values verified? (Cross-checked, double-checked)	Maintenance records and calibration records	<ul style="list-style-type: none"> <li>- Cross-checked by appropriate personnel – whose qualification are issued by the appropriate supervision body</li> <li>- Daily data of settlement documents for the purchase of raw gas are used to crosscheck the data from flow meter of dry gas at point D</li> </ul>																																										

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Volume of the dry gas measured at point D in monitoring period	Dry Gas
		- Calibration records were verified
Type of Monitoring Equipment and Identification number or Reference.	According to Monitoring Report	According to Project monitoring report #2, section "E.1. Calculation of Project Emissions" Table E-4
Period of operating time	Continuous	
Instrument type	Various types of flowmeters	Calibration in accordance with management procedure and relevant ISO standards.
Manufacturer, model and serial number	See appropriate evidence file	-
Specific location	See appropriate evidence file	-
Calibration dates	Embedded in file	-
Company performing the calibration	Third Party	Shaanxi Guohua Modern Control Technology Co., Ltd.
Required calibration frequency represent good monitoring practices?	OK	OK
Is calibration valid for the whole reporting period?	Ok	OK
Maintenance	OK	OK
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Ok	OK
Key reporting risks	Data gaps & correction procedures Check, when relevant	Proper operation has been confirmed

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Chemical composition of recovered gas at point F	Recovered Gas
Key Values:		In Table 4-1 "Monthly data of monitored associated

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Chemical composition of recovered gas at point F	Recovered Gas																																																								
	<p><b>W<sub>C,F,y</sub></b> ..The weighted average mass fraction of carbon in recovered associated gas at point F in year y (tC/ mass unit of the recovered gas)</p> <p><b>ρ<sub>F,y</sub></b> .. The weighted average density of recovered associated gas at point F in year y (mass unit/volume unit of the recovered gas)</p>	<p>gas recovered by the project”</p> <table border="1" data-bbox="1559 360 2101 794"> <thead> <tr> <th>From</th> <th>To</th> <th>W<sub>C,F,y</sub></th> <th>ρ<sub>F,y</sub></th> </tr> </thead> <tbody> <tr><td>01/01/2020</td><td>31/01/2020</td><td>0.7444</td><td>0.9989</td></tr> <tr><td>01/02/2020</td><td>29/02/2020</td><td>0.7429</td><td>0.9987</td></tr> <tr><td>01/03/2020</td><td>31/03/2020</td><td>0.7061</td><td>0.9894</td></tr> <tr><td>01/04/2020</td><td>30/04/2020</td><td>0.7181</td><td>0.9937</td></tr> <tr><td>01/05/2020</td><td>31/05/2020</td><td>0.7107</td><td>0.9887</td></tr> <tr><td>01/06/2020</td><td>30/06/2020</td><td>0.7146</td><td>0.9935</td></tr> <tr><td>01/07/2020</td><td>31/07/2020</td><td>0.7024</td><td>0.9869</td></tr> <tr><td>01/08/2020</td><td>31/08/2020</td><td>0.7469</td><td>0.9987</td></tr> <tr><td>01/09/2020</td><td>30/09/2020</td><td>0.7054</td><td>0.9898</td></tr> <tr><td>01/10/2020</td><td>31/10/2020</td><td>0.6956</td><td>0.9795</td></tr> <tr><td>01/11/2020</td><td>30/11/2020</td><td>0.7057</td><td>0.9877</td></tr> <tr><td>01/12/2020</td><td>31/12/2020</td><td>0.7082</td><td>0.9854</td></tr> <tr> <td colspan="2">Total</td> <td><b>0.7157</b></td> <td><b>0.9907</b></td> </tr> </tbody> </table>	From	To	W <sub>C,F,y</sub>	ρ <sub>F,y</sub>	01/01/2020	31/01/2020	0.7444	0.9989	01/02/2020	29/02/2020	0.7429	0.9987	01/03/2020	31/03/2020	0.7061	0.9894	01/04/2020	30/04/2020	0.7181	0.9937	01/05/2020	31/05/2020	0.7107	0.9887	01/06/2020	30/06/2020	0.7146	0.9935	01/07/2020	31/07/2020	0.7024	0.9869	01/08/2020	31/08/2020	0.7469	0.9987	01/09/2020	30/09/2020	0.7054	0.9898	01/10/2020	31/10/2020	0.6956	0.9795	01/11/2020	30/11/2020	0.7057	0.9877	01/12/2020	31/12/2020	0.7082	0.9854	Total		<b>0.7157</b>	<b>0.9907</b>
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Total		<b>0.7157</b>	<b>0.9907</b>																																																							
Measuring frequency	Chemical analysis of dry gas samples	Sampling and compositional analysis and calculation of net calorific value once a month																																																								
Reporting frequency	Per monitoring period																																																									
Recording (Manually / electronically / ...)	Onsite Measurement / records electronically stored	Sampling conducted with the same metering reference conditions used for parameter V <sub>F,y</sub>																																																								
QA/QC How are values verified? (Cross-checked, double-checked)	Maintenance records and calibration records	<ul style="list-style-type: none"> <li>- Cross-checked by appropriate personnel – whose qualification are issued by the appropriate supervision body</li> <li>- Project owner entrusted third party laboratory with ISO17025 accreditation</li> <li>- Calibration records were verified</li> </ul>																																																								
Type of Monitoring Equipment and Identification number or Reference.	According to Monitoring Report	According to Monitoring Report , section “Data and parameters monitored”																																																								

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Chemical composition of recovered gas at point F	Recovered Gas
Period of operating time	Continuous	
Instrument type	Various types of flowmeters	Sampling devices in accordance with management procedure and standards  <i>GB/T 13610-2014 Analysis of natural gas composition—Gas chromatography, and</i>  <i>GB/T 11062-2014 Natural gas—Calculation of calorific values, density, relative density and Wobbe index</i>
Manufacturer, model and serial number	See appropriate evidence file	-
Specific location	See appropriate evidence file	Point F
Calibration dates	Embedded in file	-
Company performing the calibration	Third Party	Shaanxi Institute Energy Quality Supervision & Inspection
Required calibration frequency represent good monitoring practices?	OK	OK
Is calibration valid for the whole reporting period?	Ok	OK
Maintenance	OK	OK
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Ok	OK
Key reporting risks	Data gaps & correction procedures. Check, when relevant	Proper operation has been confirmed by the Lead Auditor

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Chemical composition of dry gas at point D	Dry Gas			
Key Values:	<p><b>w<sub>c,i,y</sub></b> --The weighted average mass fraction of carbon in dry gas at point D in year y (tC/ mass unit of the recovered gas)</p>	In Table 4-2 "Monthly data of monitored dry gas consumed by the project"			
	<p><b>ρ<sub>i,y</sub></b> -- The weighted average density of dry gas at point D</p>				
		01/01/2020	31/01/2020	0.7080	0.8306

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Chemical composition of dry gas at point D	Dry Gas			
	in year y (mass unit/volume unit of the recovered gas)	01/02/2020	29/02/2020	0.7004	0.8212
		01/03/2020	31/03/2020	0.6952	0.8204
		01/04/2020	30/04/2020	0.6840	0.8144
		01/05/2020	31/05/2020	0.6889	0.8201
		01/06/2020	30/06/2020	0.6802	0.8044
		01/07/2020	31/07/2020	0.6878	0.8190
		01/08/2020	31/08/2020	0.7166	0.8305
		01/09/2020	30/09/2020	0.6645	0.7940
		01/10/2020	31/10/2020	0.6852	0.8052
		01/11/2020	30/11/2020	0.7097	0.8301
		01/12/2020	31/12/2020	0.6913	0.8235
		Total		<b>0.6923</b>	<b>0.8178</b>
Measuring frequency	Chemical analysis of dry gas samples	Sampling and compositional analysis and calculation of net calorific value once a month			
Reporting frequency	Per monitoring period				
Recording (Manually / electronically / ...)	Onsite Measurement / records electronically stored	Sampling conducted with the same metering reference conditions used for parameter $FC_{i,j,y}$			
QA/QC How are values verified? (Cross-checked, double-checked)	Maintenance records and calibration records	<ul style="list-style-type: none"> <li>- Cross-checked by appropriate personnel – whose qualification are issued by the appropriate supervision body</li> <li>- Project owner entrusted third party laboratory with ISO17025 accreditation</li> <li>- Calibration records were verified</li> </ul>			
Type of Monitoring Equipment and Identification number or Reference.	According to Monitoring Report	According to Monitoring Report #2, section “Data and parameters monitored”			
Period of operating time	Continuous				
Instrument type	Various types of flowmeters	Sampling devices in accordance with management procedure and standards  GB/T 13610-2014 <i>Analysis of natural gas</i>			



Aspect at monitoring period: 01/01/2020 to 31/12/2020	Chemical composition of dry gas at point D	Dry Gas
		<i>composition—Gas chromatography, and GB/T 11062-2014 Natural gas—Calculation of calorific values, density, relative density and Wobbe index</i>
Manufacturer, model and serial number	See appropriate evidence file	-
Specific location	See appropriate evidence file	Point D
Calibration dates	Embedded in file	-
Company performing the calibration	Third Party	Shaanxi Institute Energy Quality Supervision & Inspection
Required calibration frequency represent good monitoring practices?	OK	OK
Is calibration valid for the whole reporting period?	Ok	OK
Maintenance	OK	OK
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Ok	OK
Key reporting risks	Data gaps & correction procedures. Check, when relevant	Proper operation has been confirmed

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Grid power (NWPG) consumed monitored at point E	Electricity monitored																														
Key Values:	<p><b>EC<sub>PJ,i,y</sub></b> (MMh)</p> <p>(with <b>EF<sub>EF,i,y</sub></b> of 0.6194tCO<sub>2</sub>/MW and DL<sub>i,y</sub> 10% )</p>	<p>In Table 4-3 “Monthly data of monitored electricity consumed from power grid in the project”</p> <table border="1"> <thead> <tr> <th>From</th> <th>To</th> <th><b>wc<sub>i,y</sub></b></th> </tr> </thead> <tbody> <tr> <td>01/01/2020</td> <td>31/01/2020</td> <td>394.050</td> </tr> <tr> <td>01/02/2020</td> <td>29/02/2020</td> <td>217.200</td> </tr> <tr> <td>01/03/2020</td> <td>31/03/2020</td> <td>82.800</td> </tr> <tr> <td>01/04/2020</td> <td>30/04/2020</td> <td>93.300</td> </tr> <tr> <td>01/05/2020</td> <td>31/05/2020</td> <td>0.000</td> </tr> <tr> <td>01/06/2020</td> <td>30/06/2020</td> <td>0.000</td> </tr> <tr> <td>01/07/2020</td> <td>31/07/2020</td> <td>0.000</td> </tr> <tr> <td>01/08/2020</td> <td>31/08/2020</td> <td>0.000</td> </tr> <tr> <td>01/09/2020</td> <td>30/09/2020</td> <td>0.000</td> </tr> </tbody> </table>	From	To	<b>wc<sub>i,y</sub></b>	01/01/2020	31/01/2020	394.050	01/02/2020	29/02/2020	217.200	01/03/2020	31/03/2020	82.800	01/04/2020	30/04/2020	93.300	01/05/2020	31/05/2020	0.000	01/06/2020	30/06/2020	0.000	01/07/2020	31/07/2020	0.000	01/08/2020	31/08/2020	0.000	01/09/2020	30/09/2020	0.000
From	To	<b>wc<sub>i,y</sub></b>																														
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Aspect at monitoring period: 01/01/2020 to 31/12/2020	Grid power (NWPG) consumed monitored at point E	Electricity monitored			
		01/10/2020	31/10/2020	0.000	
		01/11/2020	30/11/2020	0.000	
		01/12/2020	31/12/2020	57.450	
		Total		<b>844.800</b>	
Measuring frequency	Continuously and balanced on monthly basis with grid company	Monthly transaction receipt			
Reporting frequency	Per monitoring period				
Recording (Manually / electronically / ...)	Onsite Measurement / records electronically stored	Readings records and Monthly transaction receipt			
QA/QC How are values verified? (Cross-checked, double-checked)	Maintenance records and calibration records	<ul style="list-style-type: none"> <li>- Cross-checked by appropriate personnel – whose qualification are issued by the appropriate supervision body</li> <li>- Project owner entrusted third party laboratory with ISO17025 accreditation</li> <li>- Calibration records were verified</li> </ul>			
Type of Monitoring Equipment and Identification number or Reference.	According to Monitoring Report	According to Monitoring Report ,Table 3-2 Specification ... ""			
Period of operating time	Continuous				
Instrument type	Various types of electrical meter	As per national standard- JJG596-2012 Verification Regulation of Electrical Meters for Measuring Alternating-current Electrical Energy			
Manufacturer, model and serial number	See appropriate evidence file	-			
Specific location	See appropriate evidence file	Point E			
Calibration dates	Embedded in file	-			
Company performing the calibration	Third Party	Electric Power Research Institute of State Grid Gansu Electric Power Company			
Required calibration frequency represent good monitoring practices?	OK	OK			

Aspect at monitoring period: 01/01/2020 to 31/12/2020	Grid power (NWPG) consumed monitored at point E	Electricity monitored
Is calibration valid for the whole reporting period?	Ok	OK
Maintenance	OK	OK
Does the data management (from monitoring equipment to emission reductions calculation) ensure correct transfer of data and reporting of emission reductions?	Ok	OK
Key reporting risks	Data gaps & correction procedures. Check, when relevant	Proper operation has been confirmed

SECTION 3. Assessment of data and calculation of GHG emission reductions	Verified situation	Conclusion
<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? Check consistency in the ERs spreadsheet.</p>	<p>The Excel file used for registration of monitored records and calculation of emissions reductions during the monitored period has been updated to correctly reflect the right parameters of the information provided in the baseline calculation and emission reduction estimations.</p>	<p>OK</p>
<p>3.2. Has the calculation tool been correctly documented? Check its consistency and formulae.</p> <ul style="list-style-type: none"> <li>• baseline emissions</li> <li>• project emissions</li> <li>• controlled by the PP</li> <li>• related to the project.</li> <li>• affected by the project</li> <li>• emission reductions of the project.</li> </ul>	<p>File titled “Zhuangsanlian_UER calculation_20210210.xlsx”</p>	<p>OK</p>
<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 parameters have not been monitored in</p>	<p>File titled “Zhuangsanlian_UER calculation_20210210.xlsx”</p>	<p>OK</p>

SECTION 3. Assessment of data and calculation of GHG emission reductions	Verified situation	Conclusion
accordance with the applied criteria, procedure and/or methodology, conduct an assessment of the potential impacts of these changes.		
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>Raw records of electronic system have been checked and confirmed by the verification team during the remote audit.</p> <p>Furthermore, original copies of records of raw gas (total recovered gas measured at point F) and dry gas (to be combusted in gas generators, measured at point D) as well as grid power transaction receipts to the processing station have been verified by the verification team .</p>	OK
3.5. Have appropriate emission factors, IPCC default values, and other reference values been correctly applied?	<p>The emission factor of grid NWPG was determined as per the Methodological Tool 07 “<i>Tool to calculate the emission factor for an electricity system</i>” and “<i>2017 Baseline Emission Factors for Regional Power Grids in China</i>” published by China DNA in the validated PDD version 3 dated 11 /09/2020, which has been verified by verification team and found conservative.</p> <p>The same value has been used in the Monitoring Report version 2.1 dated 29/03/2021 and “Zhuangsanlian_UER calculation_20210329.xlsx” for calculation of emission reductions.</p>	OK

# ANNEX 2

## FINDING LIST

Findings Non-conformities	Correction	Assessment Method for correction	Final Conclusion	Assessment
<p><u>Corrective Action Request #01</u></p> <p>As described in the Monitoring Report -Section 1.2. the annual recovery capacity as estimated in the validated PDD is 9,900,000Nm<sup>3</sup> ( with production of 5,940,000 Nm<sup>3</sup> dry gas and 5,148t light hydrocarbon) whereas the monitored value during year 2020 is 11,429,697 Nm<sup>3</sup> (with 6,371,223 Nm<sup>3</sup> dry gas and 5,212 t light hydrocarbon ), which results in a significant increase in the emission reductions i.e. from 12,892 to 15,804 (above 22%).</p> <p>Please explain the reason of the over recovery</p> <p>In addition, the value of annual ER archived is 16,486 t in Monitoring Report -Section 1.2. which is not consistent with others.</p>	<p>The annual volume of recovered gas estimated in PDD is based on the FSR which was calculated by historical records and the capacity range is from 80%-120%, which means the acceptable volume of recovered associated gas during operation is from 7.92-11.88million Nm<sup>3</sup> per year. Therefore the actual monitored value of recovered gas during 2020 is within the estimated capacity of the FSR.</p> <p>The value of annual ER has been revised in the updated MR (Version 2.0 dated 19/02/2021).</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Inspection</li> <li><input type="checkbox"/> Interview</li> <li><input checked="" type="checkbox"/> Check of docs</li> <li><input type="checkbox"/> Sample</li> <li><input checked="" type="checkbox"/> Calculation</li> <li><input type="checkbox"/> Comparison</li> <li><input type="checkbox"/> Other</li> </ul>	<p>With regard to the fluctuation range of the recovery capacity, the government's approval dated 16/07/2018 (Zhuangshanlian_Project Approval.pdf) has been presented with the response.</p> <p>The description on capacity range from 80%-120% is found in the government's approval. Taking into account the monitored gas volume is over approx.15% to the estimated volume in the validated PDD and below 20%, the difference can be considered reasonable.</p> <p>The typo of the value of emission reductions has been corrected in the MR version 2.0 dated 19/02/2021.</p> <p><b>CAR#01 is closed.</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> material non-conformity</li> <li><input type="checkbox"/> non-material non-conformity</li> <li><input type="checkbox"/> Forward Action Request</li> <li><input checked="" type="checkbox"/> issue corrected appropriately</li> </ul>



Findings Non-conformities	Correction	Assessment Method for correction	Final Conclusion	Assessment
<p><u>Corrective Action Request #02</u></p> <p>As described in the Monitoring Report - Section 3.2. Data and Parameters Monitored, the input values are actually monitored in this period whereas it mentions “Value of data applied for the purpose of calculating expected emission reductions” in the left column. Please correct accordingly.</p>	<p>The description of the column has been revised into “Value of data applied for the purpose of calculating emission reductions” in the updated MR (Version 2.0, 19/02/2021).</p>	<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	<p>The typo in the tables of Section 3.2. of the MR version 1.0 has been corrected in the MR version 2.0 dated 19/02/2021, and found acceptable.</p> <p><b>CAR#02 is closed.</b></p>	<input type="checkbox"/> material non-conformity <input type="checkbox"/> non-material non-conformity <input type="checkbox"/> Forward Action Request <input checked="" type="checkbox"/> issue corrected appropriately
<p><u>Corrective Action Request #03</u></p> <p>As described in the Monitoring Report the monitored value of parameter <math>EC_{P,j,y}</math> in this period is 1000MWh whereas the value in Section 3.2. is “0”.  Please correct it accordingly.</p>	<p>In accordance with the electricity transaction receipt issued by the grid company, the value of parameter has been revised into 844.800MWh in the MR (Version 2.0, 19/02/2021) .</p>	<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	<p>The appropriateness of emergency procedures has been checked and updated in the MR ver.01.1.</p> <p><b>CAR#03 is closed</b></p>	<input type="checkbox"/> material non-conformity <input type="checkbox"/> non-material non-conformity <input type="checkbox"/> Forward Action Request <input checked="" type="checkbox"/> issue corrected appropriately

Findings Non-conformities	Correction	Assessment Method for correction	Final Conclusion	Assessment
<p><u>Clarification Request #01</u></p> <p>As described in the Monitoring Report - Section 3.3. Monitoring Plan, “<i>The location settings of monitoring points and sampling points are shown in Figure 7-2. ...</i> “. However Figure 7-2 is not found in the Monitoring Report.</p> <p>Please also specify the location of sampling points in the figure.</p>	<p>“Figure 7-2” was a typo, which has been revised into “Figure 3-2” in the update MR (Version 2.0, 19/02/2021).</p> <p>The sampling point is close to the flowmeters at the point F and point D as confirmed with gas composition analysis testing body.</p>	<p><input type="checkbox"/> Inspection</p> <p><input type="checkbox"/> Interview</p> <p><input checked="" type="checkbox"/> Check of docs</p> <p><input type="checkbox"/> Sample</p> <p><input type="checkbox"/> Calculation</p> <p><input type="checkbox"/> Comparison</p> <p><input type="checkbox"/> Other</p>	<p>The typo has been corrected in the MR version 2.0 dated 19/02/2021.</p> <p>The sampling point that close to the flowmeter at the point F and point D respectively can be considered in line with the relevant sampling standard ISO10715.</p> <p><b>CL#01 is closed</b></p>	
<p><u>Clarification Request #02</u></p> <p>With regards to gas sampling, please specify the person/testing body who performs the sampling following the relevant national standards. It was performed by operators of the project or by the staff of the gas laboratory with accreditation of ISO17025.</p>	<p>According to the Monitoring Manual of the project, the sampling was performed by the operation staff of the project who has been trained in advance following the national standard GB/T 6681-2003, the description has been revised in the updated MR (Version 2.0, 19/02/2021).</p>	<p><input type="checkbox"/> Inspection</p> <p><input type="checkbox"/> Interview</p> <p><input checked="" type="checkbox"/> Check of docs</p> <p><input type="checkbox"/> Sample</p> <p><input type="checkbox"/> Calculation</p> <p><input type="checkbox"/> Comparison</p> <p><input type="checkbox"/> Other</p>	<p>Based on the supplementary description in the updated MR Version 2.0 dated 19/02/2021 and evidence of accreditation of the gas chemical composition testing body (ref.no.11-Zhuangsanlian_Certificate of authorization-Chemical test.pdf), it is found that the implementation of sampling procedure by the qualified staff/ accredited body (with accreditation under ISO17025) can be confirmed to be substantial and reliable.</p>	<p><input type="checkbox"/> material non-conformity</p> <p><input type="checkbox"/> non-material non-conformity</p> <p><input type="checkbox"/> Forward Action Request</p> <p><input checked="" type="checkbox"/> issue corrected appropriately</p>

Findings Non-conformities	Correction	Assessment Method for correction	Final Conclusion	Assessment
			<b>CL#02 is closed</b>	

## Annex 3: List of reviewed documents

<p><b>General background information</b></p>	<p>/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</p> <p>/2/ 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</p> <p>/3/ EU Guidance note, “Guidance note on approaches to quantify, verify, validate, monitor and report upstream emission reductions”</p> <p>/4/ Austrian Kraftstoffverordnung(KVO) dated 24 June 2020</p>
<p><b>Project-specific background:</b></p>	<p>/5/ Approved baseline methodology AM0009: Recovery and utilization of gas from oil fields that would otherwise be flared or vented --- Version 7.0, UNFCCC, 08 Nov 2013</p> <p>/6/ Methodological tool 06 -Tool to calculate project or leakage CO<sub>2</sub> emissions from fossil fuel combustion--- Version 03.0</p> <p>/7/ Methodological tool 07 -Tool to calculate the emission factor for an electricity system</p> <p>/8/ “2017 Baseline Emission Factors for Regional Power Grids in China” published by China DNA</p>
<p><b>Project-specific documents</b></p>	<p>/9/ Project Monitoring Report “Zhuangsanlian_UER MR_20210329” version 2.1 for the 1<sup>st</sup> monitoring period.</p> <p>/10/ Project Monitoring Report “Zhuangsanlian_UER MR_20210219” version 2.0 for the 1<sup>st</sup> monitoring period.</p> <p>/11/ Project Monitoring Report “Zhuangsanlian_UER MR_20210207” version 1.0 for the 1<sup>st</sup> monitoring period</p> <p>/12/ 01- Zhuangsanlian_Project Approval dated 16/07/2018</p> <p>/13/ 02- Zhuangsanlian_starting date of construction</p> <p>/14/ 03- Zhuangsanlian_starting date of operation</p> <p>/15/ 04-Layout of project site</p> <p>/16/ 05-Zhuangsanlian_Operation records</p> <p>/17/ 06-Zhuangsanlian_Chemical analysis of recovered gas</p> <p>/18/ 07-Zhuangsanlian_Chemical analysis of dry gas</p> <p>/19/ 09-Zhuangsanlian_Calibration report of flow meters</p> <p>/20/ 10-Zhuangsanlian_Accreditation of flow-meter calibration body</p> <p>/21/ 11-Zhuangsanlian_Accreditation of Chemical testing body</p> <p>/22/ 13-Zhuangsanlian_Calibration report of electricity meter</p> <p>/23/ 14-Zhuangsanlian_electricity transaction receipt (ETN) of 2020</p> <p>/24/ 15-Zhuangsanlian_Accreditation of electrical meter calibration body</p> <p>/25/ PDD_Zhuangsanlian Associated Gas Recovery and Utilization Project version 3 dated 11/09/2020</p> <p>/26/ Validation report no.VS3291941 dated 14/09/2020</p>

/27/ Photos of Zhuangsanlian Gas Processing Station

Calculation sheets:

/28/ Zhuangsanlian\_UER calculation\_20210329.xlsx

# **Annex 4**

## **List of Interviewed Persons**

**Teilnehmerliste / Participant List:**

Allgemein / General	
Auftragsnummer / Order No.	UER-049
Firma / Company	Sinopec Xinxing Shaanxi Xinyuan Technology Co. Ltd.(owner)
Project:	VERIFICATION 1. PERIOD "Zhuangsanlian Associated Gas Recovery and Utilization Project "
Datum des Audits / Date of Audit	10.Feb.2021 remote audit

Name / Name	Funktion / Function	Unterschrift / Signature
Robin Wang	Verico, LA	remote audit, evidenced by screenshot
Werner Betzenbichler	Verico, LA	
Haiyan Wang	Sinopec Xinxing Shaanxi Xinyuan Technology Co. Ltd.	remote audit, evidenced by screenshot
Xuefeng Zhang	Sinopec Xinxing Shaanxi Xinyuan Technology Co. Ltd.	remote audit, evidenced by screenshot
Shanfeng Huang	Climate Bridge (Shanghai) Ltd.	remote audit, evidenced by screenshot

# **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

Langenbach, 28.11.2020



Javier Vallejo Drehs

# 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

# Ernennungsurkunde

## Certificate of Appointment

**Sergio Alejandro Degener**

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

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

**ISO14064-1: 1, 15, 17, 20, 21**

**ISO14064-2: 1, 3, 4, 5, 10, 11, 13, 15**

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 A14 ISO14064-3

Langenbach, 20.11.2018



Javier Vallejo Drehs

ZERTIFIKAT CERTIFICATE