



KPMG Professional Services

Riyadh Front, Airport Road
P. O. Box 92876
Riyadh 11663
Kingdom of Saudi Arabia
Commercial Registration No 1010425494

Headquarters in Riyadh

كي بي إم جي للاستشارات المهنية

واجهة الرياض، طريق المطار
صندوق بريد ٩٢٨٧٦
الرياض ١١٦٦٣
المملكة العربية السعودية
سجل تجاري رقم ١٠١٠٤٢٥٤٩٤

المركز الرئيسي في الرياض

Independent Limited Assurance Report to Saudi Arabian Oil Company on the GHG emissions

To the Management of the Saudi Arabian Oil Company

We were engaged by the Management of Saudi Arabian Oil Company (the "Company") to report on the GHG emissions report of Saudi Arabian Oil Company for the year ended 31 December 2021 ("Subject Matter") as detailed below. The review is aimed at obtaining a limited level of assurance that based on our work performed and evidence obtained, nothing has come to our attention that causes us to believe that the Subject Matter is not properly prepared, in all material respects, based on the applicable criteria ("Applicable Criteria") below.

Subject Matter

The Subject Matter for our limited assurance engagement is related to the GHG emissions report of Saudi Arabian Oil Company for the year ended 31 December 2021 as prepared by the Company. The Subject Matter information consists of the following:

- Saudi Aramco Scope 1, Scope 2 and Total GHG emissions in tonnes of carbon dioxide equivalent (tCO₂e) and per GHG gas (CO₂, CH₄, N₂O) for 2021 for entities under operational control
- Saudi Aramco Scope 1, Scope 2, and Total GHG emissions in tCO₂e and per GHG gas (CO₂, CH₄, N₂O) for 2021 for in-Kingdom wholly owned operated assets.
- Saudi Aramco Scope 1, Scope 2, and Total GHG emissions in tCO₂e and per GHG gas (CO₂, CH₄, N₂O) for 2021 for Affiliates under Operational Control.

The Subject Matter information data is disclosed in the *Annex A* of this report.

Applicable Criteria

The review needs to be read and understood together with the applicable criteria. The Company is solely responsible for selecting and applying these applicable criteria, taking into account applicable law, regulations, and standards related to GHG reporting.

The Company reports its GHG emissions data on an operational control basis for its in-Kingdom wholly owned operated assets and its material operationally-controlled affiliates, as per *Annex B*. The applicable criteria is based on the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) GHG Protocol guidelines, as well as the American Petroleum Institute (API) guidelines and compendium. All applicable criteria are further defined in Saudi Aramco's GHG Basis of Reporting.

Based on our professional judgement, we determined materiality levels for each of the GHG emission sources and for the GHG inventory as a whole. When evaluating our materiality levels, we take into account quantitative and qualitative considerations as well as the relevance of information for both stakeholders and Saudi Aramco.

We agreed with management that misstatements which are identified during the review and which in our view must be reported on quantitative or qualitative grounds would be reported to them.

Saudi Arabian Oil Company's Responsibility

The management of the Company is responsible for preparing the Subject Matter information that is free from material misstatement in accordance with the applicable criteria and for the information contained therein. The management of the Company is also responsible for preparing the Subject Matter information.

This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and presentation of the Subject Matter that information is free from material misstatement, whether due to fraud or error. It also includes selecting the applicable criteria and ensuring that the Company complies with the applicable requirements;

designing, implementing and effectively operating controls to achieve the stated control objectives; selecting and applying policies; making judgments and estimates that are reasonable in the circumstances; and maintaining adequate records in relation to the Subject Matter information.

The management of the Company is also responsible for preventing and detecting fraud and for identifying and ensuring that the Company complies with laws and regulations applicable to its activities. The management of the Company is responsible for ensuring that staff involved with the preparation of the Subject Matter information are properly trained, systems are properly updated and that any changes in reporting encompass all significant business units.

Our Responsibility

Our responsibility is to examine the Subject Matter information prepared by the Company and to report thereon in the form of an independent limited assurance conclusion based on the evidence obtained. We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000, "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" endorsed in the Kingdom of Saudi Arabia and the terms and conditions for this engagement as agreed with the Company's management. That standard requires that we plan and perform our procedures to obtain a meaningful level of assurance about whether the Subject Matter information is properly prepared, in all material respects, as the basis for our limited assurance conclusion.

The firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We are independent of the Company in accordance with professional code of conduct and ethics that are endorsed in the Kingdom of Saudi Arabia that are relevant to our assurance engagement and we have fulfilled our other ethical responsibilities in accordance with these requirements.

The procedures selected depend on our understanding of the Subject Matter and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise.

In obtaining an understanding of the Subject Matter and other engagement circumstances, we have considered the process used to prepare the Subject Matter information in order to design assurance procedures that are appropriate in the circumstances, but not for the purposes of expressing a conclusion as to the effectiveness of the Company's process or internal control over the preparation and presentation of the Subject Matter information.

Our engagement also included: assessing the appropriateness of the Subject Matter, the suitability of the applicable criteria used by the Company in preparing the Subject Matter information in the circumstances of the engagement, evaluating the appropriateness of the procedures used in the preparation of the Subject Matter information and the reasonableness of estimates made by the Company.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We did not perform procedures to identify additional procedures that would have been performed if this were a reasonable assurance engagement.

As part of this engagement, we have not performed any procedures by way of audit, review or verification of the Subject Matter information nor of the underlying records or other sources from which the Subject Matter information was extracted.

Procedures Performed

Saudi Aramco is the parent company of a group of entities. The GHG emissions incorporate the consolidated emissions of this group of entities to the extent as specified in the section 'Reporting criteria' section of our report.

Our group review procedures consisted of both review procedures at corporate (consolidated) level and at site level. Our selection of sites in scope of our review procedures is primarily based on the site's individual contribution to the consolidated emissions. Furthermore, our selection of sites considered relevant reporting risks and geographical spread.

By performing our review procedures at site level, together with additional review procedures at corporate level, we have been able to obtain sufficient and appropriate assurance evidence about the group's GHG emissions to provide a conclusion about the GHG emissions.

Our review procedures performed are as follows:

- Performing an analysis of the external environment and obtaining an understanding of GHG accounting at Saudi Aramco.

- Obtaining an understanding of the reporting processes for Saudi Aramco, including obtaining a general understanding of internal controls relevant to our review; identifying areas within the reporting where a material misstatement, whether due to fraud or error, is most likely to occur, as well as designing and performing assurance procedures responsive to these areas; and obtaining assurance information that is sufficient and appropriate to provide a basis for our conclusion.
- Interviewing management and relevant staff at corporate level responsible for data collection, management, and analysis as it pertains to GHG accounting.
- Interviewing relevant staff responsible for providing the requisite information, carrying out internal control procedures, and consolidating data.
- Reviewing management documentation and company data reporting tools (such as Sphera), including related guidance materials.
- Conducting six site visits – four remote and two on-site – to observe, discuss, and understand all processes and protocols in relation to GHG data collection, calculation, and reporting.
- Reviewing data management protocols, including rules related to data conditioning.
- Evaluating the presentation, structure and content of Saudi Aramco.
- Considering whether information in the report as a whole, including the disclosures, reflects the purpose of the applicable criteria used.

Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Subject Matter information is not prepared, in all material respects, in accordance with the applicable criteria.

Restriction of Use of Our Report

Our report should not be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than the Company, for any purpose or in any context. Any party other than the Company who obtains access to our report or a copy thereof and chooses to rely on our report (or any part thereof) will do so at its own risk. To the fullest extent permitted by law, we accept or assume no responsibility and deny any liability to any party other than the Company for our work, for this independent limited assurance report, or for the conclusions we have reached.

Our report is released to the Company on the basis that it shall not be copied, referred to or disclosed, in whole (save for the Company's own internal purposes) or in part, without our prior written consent.

KPMG Professional Services



Fahad Aldossari
License No: 469
31 March 2022 M

Corresponding to: 28 Shaaban 1443 H



Annex A: 2021 GHG Reporting

	CO₂	CH₄	CH₄ (CO₂e)	N₂O	N₂O (CO₂e)	Total CO₂e
	million tonnes	thousand tonnes	million tonnes	thousand tonnes	million tonnes	million tonnes
GHG Emissions for wholly owned and operated assets within Kingdom of Saudi Arabia						
Scope 1	42.72	28.77	0.72	0.74	0.22	43.66
Scope 2	13.22	0.39	0.01	0.29	0.09	13.31
Total	55.93	29.15	0.73	1.03	0.31	56.97
GHG Emissions for three affiliates in operational boundary						
Scope 1	8.51	1.61	0.04	0.10	0.03	8.59
Scope 2	2.21	0.24	0.01	0.01	0.00	2.22
Total	10.72	1.86	0.05	0.11	0.03	10.81
GHG Emissions of all assets in operational boundary of Saudi Aramco						
Scope 1	51.23	30.38	0.76	0.85	0.25	52.25
Scope 2	15.43	0.63	0.02	0.30	0.09	15.53
Total	66.65	31.01	0.78	1.14	0.34	67.78

Saudi Aramco Departments

Department	Admin Area
Abq Plants Operations Department (APOD)	Southern Area Oil Operations (SAOO)
Berri Gas Plant Department (BGPLD)	Northern Area Gas Operations (NAGO)
Central Region Distribution Department (CRDD)	PD&T (Distribution)
Community Services	Operations and Business Services
East West Pipeline Department (EWPD)	PD&T (Pipelines)
Eastern Region Distribution Department (ERDD)	PD&T (Distribution)
Eastern Region Terminal Department (ERTD)	PD&T (Terminals)
Haradh Gas Plant Department (HdGPD)	Southern Area Gas Operations (SAGO)
Hawiyah Gas Plant Department (HGPD)	Southern Area Gas Operations (SAGO)
Hawiyah NGL Department (HNGLD)	Southern Area Gas Operations (SAGO)
Juaymah NGL Department (JNGLD)	Global Manufacturing
Khurais Producing Department (KhPD)	Southern Area Oil Operations (SAOO)
Khursaniyah Gas Plant Department (KGPLD)	Northern Area Gas Operations (NAGO)
Manifa Producing Department (MPD)	Northern Area Oil Operations (NAOO)
Marine Department	Industrial Services
NA Gas Producing Department (NAGPD)	Northern Area Oil Operations (NAOO)
NA Pipelines Department (NAPD)	PD&T (Pipelines)
North Ghawar Producing Department (NGPD)	Southern Area Oil Operations (SAOO)
Ras Tanura Producing Department (RTPD)	Global Manufacturing
Ras Tanura Refinery (RTR)	Northern Area Oil Operations (NAOO)
Ras Tanura Refinery Department (RTRD)	Northern Area Oil Operations (NAOO)
Riyadh Refinery Department (RRD)	Global Manufacturing
Safaniyah Offshore Producing Department (SOFPD)	Northern Area Oil Operations (NAOO)
Safaniyah Onshore Producing Department (SONPD)	Northern Area Oil Operations (NAOO)
Sea Water Injection Department (SWID)	Southern Area Oil Operations (SAOO)
Shaybah NGL Recovery Plant Department (SyNGL)	Northern Area Gas Operations (NAGO)
Shaybah Producing Department (SyPD)	Southern Area Oil Operations (NAOO)
Shedgum Gas Plant Department (ShGPD)	Southern Area Gas Operations (SAGO)
South Ghawar Producing Department (SGPD)	Southern Area Oil Operations (SAOO)
Southern Area Pipeline Department (SAPD)	PD&T (Pipelines)
Transportation Department	Industrial Services
Uthmaniyah Gas Plant Department (UGPD)	Southern Area Gas Operations (SAGO)
Wasit Gas Plant Department (WGP)	Northern Area Gas Operations (NAGO)
Western Region Distribution Department (WRDD)	PD&T (Distribution)
Western Region Terminal Department (WRTD)	PD&T (Terminals)
Yanbu NGL Department (YNGLD)	Global Manufacturing
Yanbu Refinery Department (YRD)	Global Manufacturing
Fadhli Gas Plant	Northern Area Gas Operations (NAGO)
North Ghawar Gas Producing Department (NGGPD)	Southern Area Oil Operations (SAOO)
South Ghawar Gas Producing Department (SGGPD)	Southern Area Oil Operations (SAOO)

Saudi Aramco Material Affiliates Under Operational Control

Saudi Aramco Jubail Refinery Company	1 refinery in KSA
Motiva Enterprises	1 refinery and 1 petrochemical facilities in USA
Arlanxeo Holding B.V.	16 petrochemical facilities spread across Europe, Americas and Asia