

# Ghana EITI Oil & Gas Commodity Trading Pilot



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## Executive summary

This report encompasses the findings and recommendations of the Ghana's Commodity Trading Pilot Programme. Ghana is one of five countries involved in the EITI pilot project on commodity trading.

- It is possible to produce a commodity trading report for oil sales in Ghana that contains reconciled data from both GNPC as the seller and the buyers for the period 1 January 2015 to 31 December 2017.
- There is a high level of correlation between the data received from GNPC, the buyers, GRA and Bank of Ghana. We identified seven discrepancies in the data as originally submitted, all minor and none material to the overall accuracy of the data. Only three discrepancies remain where the supplier of the inconsistent data has not provided a correction or explanation. From the high level of correlation of the data, we conclude there are no systematic issues with the collection and reporting of data on GNPC oil sales.
- The governance arrangements concerning GNPC's oil sales are good but there is scope for improvement to anticipate future growth in production volumes. There is a clear legal basis for GNPC's activities and for the roles of other institutions in the process. There is also clear legal framework for governing the flow of revenues received.
- GNPC has a clear buyer selection process with pre-qualification criteria for scoring each potential buyer to ensure only high quality buyers participate in the sales process.
- We recommend that GHEITI produce a plan as soon as practicable for regular reporting of reconciled oil and gas sales data for Ghana's in-kind share. The report should occur at least annually and should commence with reporting 2018 data before mid 2019. This plan should set out a realistic timetable for collecting the data, the reconciliation process and report production along with clear responsibilities. The plan should also set out the resources and budget required to implement this level of reporting.
- GHEITI should find an existing reporting process that can incorporate data on the sale of Ghana's in-kind share of oil and gas production.
- Any expansion of the scope of commodity trading reporting should be carefully planned before implementation. Also any expansion should be conducted in stages so that lessons can be learned and appropriate amendments made at each stage.

# 1. Introduction

## 1.1 Background

State Owned Enterprises play an important role in producing, transporting, refining and selling oil, gas and minerals on behalf of their governments. As in many other resource rich countries, the state-owned Ghana National Petroleum Corporation (GNPC), receives GNPC's share (equity) and Ghana Government's share (royalty) of the oil and gas produced by the oil field joint venture partners through the country's equity investments and royalties. This is termed as "in-kind"<sup>1</sup> revenues. GNPC then sells this oil and gas on behalf of GNPC and the state to commodity trading companies either on a term or spot basis. These sales represent a significant source of oil-derived revenue for the state.

Under the EITI Standard, implementing countries, including Ghana, are required to disclose the sale of state share of production and other "in-kind" revenues under EITI requirement 4.2<sup>2</sup>. In 2016, the EITI Board agreed to conduct a pilot project that will support implementing countries in deepening their work on commodity trading disclosures, by shedding light on the sales of "in-kind" revenues. The overall aim is to enhance extractive sector transparency and accountability. Ghana was selected as one of five countries to take part in this pilot project. Transparency in commodity trading, including information on the parties to the transaction and the factors influencing the sales, is important in providing a full picture of governments' revenues and management of its natural resources.

Based on this, Engaged Consulting and Michael Barron Consulting have undertaken a commodity trading transparency reconciliation exercise in Ghana, with the aim to deepen Ghana EITI's work on the disclosure of information on the state's in-kind revenues, beyond what is currently disclosed in their EITI annual reconciliation report.

## 1.2 Purpose and Scope of Assignment

### 1.2.1 Purpose

This assignment contributes to the EITI International Secretariat's global commodity trading pilot programme that supports implementing countries to disclose reconciled data on sale of its production share of extractive commodities. Specifically, the objectives of the assignment as set out in the terms of reference (ToR) include the following:

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<sup>1</sup> Based on EITI 2016 Standard, In-Kind receipts include a State's production share or revenues received in commodities other than cash.

<sup>2</sup> **EITI Standard Requirement 4.2:** *"Where the sale of the state's share of production or other revenues collected in kind is material, the government, including state-owned enterprises, are required to disclose the volumes sold and revenues received. The published data must be disaggregated by individual buying company and to levels commensurate with the reporting of other payments and revenue streams (4.7)"*

- i. Improving transparency in the sale of government's share of oil and gas production to enhance the demand side of social accountability in commodity trading;
- ii. Improving oversight by key stakeholders, over the sale of the government's share of oil and gas production;
- iii. Developing a framework for disclosure of timely and reliable information on sales of "in-kind" revenues, drawing from and building on existing disclosure practices by the key actors involved;
- iv. Providing details on the process followed for the selection of buyers and evaluation criteria;
- v. Drawing lessons from the pilot for mainstreaming commodity trading transparency in Ghana's EITI reporting.

### **1.2.2 Scope**

This pilot project focuses on the sale of GNPC's production share and the State's royalty share of oil and gas in the period 1 January 2015 to 31 December 2017. This period was selected as it encompasses the most recent three years of data. Also, an earlier piece of work had focused on that period, and we were made aware that GNPC had already collected data for that period based on the EITI standard template. This project focuses on the "first trade", i.e. GNPC's sale of GNPC's and the State's oil and gas to a buyer. The project does not attempt to trace the onward sale of oil and gas beyond that first trade. The initial buyer may well sell on the oil or gas to another party, or undertake processing themselves, but these transactions are beyond the scope of this pilot project.

The tasks for this pilot project in Ghana include:

- i. An overview of the legal and regulatory framework for oil and gas trading in Ghana, and a description of the commodity sales process and key actors and transactions involved;
- ii. In consultation with the GHEITI MSG, define the scope of information to be collected by GNPC and buyers, based on the information as detailed in Annex A of the ToR;
- iii. Collect sales data from buyers based on the EITI Sample Standard Template for Reporting on "first trade" of oil, including providing technical assistance to the buyers completing the templates;
- iv. Conduct a post-hoc reconciliation of data provided by GNPC, the buyers and other parties through the pilot;
- v. Based on the findings and recommendations of the report, promote innovative approaches beyond the EITI's minimum disclosure requirements on the sale of oil and gas in Ghana, including recommendations for extending the pilot to International Oil Companies (IOCs) sales.
- vi. The Legal and Institutional Framework for First Trades in Oil in Ghana



## 2.1 The Legal Framework

The oil and gas sector in Ghana has undergone a series of structural reforms following commercial oil discovery in 2007. Prior to 2011, a limited number of laws were in place to regulate oil and gas exploration, production and marketing. These laws included: the Ghana National Petroleum Corporation Law, 1983 (PNDC Law 64) and the Petroleum Exploration and Production Law (PNDC Law 84). However, since 2011 several laws have been enacted or amended to promote and regulate the development of hydrocarbons. The various pieces of legislation specific to trading of oil and gas have been described below:

1. **Ghana National Petroleum Corporation Law, 1983 (PNDC Law 64):** PNDC law 64 established GNPC and stipulates its legal mandates and functions. GNPC's responsibilities include its oversight of oil and gas exploration, development, production, and disposal of petroleum resources. Specifically, the law mandates GNPC, either alone or in association with others, to buy, sell, trade, store, exchange, import or export petroleum and acquire or operate any installations necessary to facilitate transportation of petroleum resources. In practice, GNPC is responsible for holding and receiving "in-kind" government's interest (royalties) as well as carried interest and additional participating interest in all petroleum agreements, participating in commercial oil and gas operations, and marketing of government's share of production.
2. **Petroleum Revenue Management Act (PRMA), 2013 (Act 815 and as Amended Act 893):** the law provides the basis for petroleum revenue collection, allocation, and management. In relation to petroleum trading or sales, all proceeds from the sale of petroleum resources are required to be credited to a Petroleum Holding Fund (PHF) within sixty calendar days after the receipt of petroleum. Specifically, payments into PHF from crude sales from GNPC include royalties, and payments from any direct and indirect government interests or participation in petroleum activities. In principle, trading companies/buyers of crude oil from GNPC are furnished with the account details to deposit proceeds directly into the PHF with the Bank of Ghana (BoG). In relation to gas, GNPC has been elected as the national aggregator of Gas, hence proceeds from gas sales are paid to GNPC for onwards transfers into PHF. The Ghana Revenue Authority (GRA) is required to assess, collect, and account for all petroleum revenues due to the State, therefore PRMA requires official notification to be given to GRA by entities who are obliged to make payments into PHF. Ghana has been praised globally for its transparency provisions in the PRMA, specifically a government phasing quarterly and annual publication by the Ministry of Finance (MoF) and BoG and a public accountability semiannual and annual reports by the Public Interest and Accountability Committee (PIAC). While the aforementioned government agencies are legally required under PRMA to publish various reports on the management of petroleum revenues, PIAC is required to monitor and evaluate government's compliance with the law, provide a platform for public debates on the use of the revenues as well as provide independent assessments

on the management of petroleum revenues to assist Parliament and the executive in their oversight responsibilities.

3. **Petroleum (Exploration and Production) Law, Act 919:** Currently, oil and gas exploration, development and production in Ghana is regulated by Act 919 which was passed in 2016 to replace the existing Act that was enacted in 1984 (PNDC law 84). Act 919 reflects new developments, experiences and dynamics in the industry including among others, emphasis on local content, introduction of competitive bidding process, and the expansion on health safety and environment requirements. All new Petroleum Agreements signed on or after September 2016 are regulated by Act 919. In relation to marketing or sales of petroleum resources, the Act regulates the measurement of petroleum resources produced, stored, and sold from all producing fields.
  
4. **Petroleum Commission Act, 2011(Act 821):** The Act establishes the Petroleum Commission with the objective to regulate and manage the utilization of petroleum resources and to coordinate the implementation of sector policies. With respect to commodity trading, the Petroleum Commission regulates compliance with health, and safety practices in relation to the lifting's and transportation of crude from the various production fields. In addition, the Commission monitors compliance with fiscal metering requirements in petroleum production.
  
5. **Income Tax Act, 2015 (Act 896):** In 2015, Ghana passed a new income tax legislation, the Income Tax Act, 2015 (Act 896) which took effect from January 1, 2016. Act 896 replaced the Internal Revenue Act, 2000 (Act 592) and specifically for the Oil and gas sector, the Petroleum Income Tax Law (PITL), 1987 (PNDC Law 188), a sector specific law used for the assessment of tax obligations for all upstream petroleum activities before 2016. This notwithstanding, PITL is still applicable to industry players who had stability clauses in their contracts. Act 896 streamlines all tax obligations from different sectors to allow for effective and efficient tax administration as well as eliminate inconsistencies in various legislations. For instance, whiles the previous Act 592 placed limits the debt-to-equity ratio of companies undertaking major projects in Ghana, PITL was silent on such provision making it difficult for GRA to enforce such measure in the upstream oil and gas sector due to the legislative inconsistencies.

## 2.2 Petroleum Agreements

A Petroleum Agreement (PA) is a necessary requirement under section 10 of the Petroleum (Exploration and Production) Act (Act 919) for the exploration, development and production of any petroleum resources in Ghana. Currently, there



are 17 existing PAs in Ghana<sup>3</sup>. These PAs mirror the general terms and conditions of a published model petroleum agreement<sup>4</sup> (MPA) (developed by GNPC in 2000), however the fiscal terms in each PA are subject to negotiation and can vary significantly from the standard terms in the MPA.

Ghana uses a concession contract model for its Petroleum Agreements (PAs). The government of Ghana earns its revenue through taxes, equity interests, royalties and fees. Royalties and equity shares of production are given in kind while corporate taxes and fees are paid in monetary values.

## 2.3 The Institutional Framework

The institutional set up and administrative arrangements for oil and gas sales in Ghana reflect similar industry practices in the oil and gas sector elsewhere. Based on the scope and purpose of this pilot, we reviewed the key responsibilities of agencies involved in first trades. The key institutions are:

- **The Ministry of Energy** is responsible for the coordination and formulation of oil and gas sector policies and legislation as well as conducting contract negotiations between the state and potential investors in the development of petroleum resources. The Minister of Energy bears the oversight responsibility over the Petroleum Commission, GNPC, and Ghana Gas who are all directly engaged in first trades in oil and gas.
- **The Petroleum Commission** coordinates upstream oil and gas sector policy implementation. It is responsible for regulation and supervision of all petroleum activities. This includes supervision and monitoring compliance with contractual obligations by contractors under the terms and conditions of petroleum agreements, including making recommendations to the Minister to negotiate, grant, revoke, suspend or renew petroleum rights and authorization in accordance with Ghana's Petroleum Law (Act 919). Specifically, the Commission monitors compliance with fiscal metering of oil and gas production as well as health and safety standards in respect of crude oil and gas production, storage and transportation from producing fields. In relation to crude oil liftings, the Petroleum Commission's (Fees and Charges) Regulations<sup>5</sup> mandates the Commission to issue lifting permits before any crude oil is lifted from Ghana's maritime jurisdiction. In practice, buyers are expected to register with the Commission either through their subsidiaries or local partners to facilitate the issuance of such permits.

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<sup>3</sup> EITI Reconciliation Report, 2015

<sup>4</sup> Ghana Model Petroleum Agreement can be accessed on the Petroleum Commission's website - [http://www.petrocom.gov.gh/assets/ghana\\_model\\_petroleum\\_agreement\(1\).pdf](http://www.petrocom.gov.gh/assets/ghana_model_petroleum_agreement(1).pdf)

<sup>5</sup> The Fees and Charges Regulations can be accessed online at Petroleum Commission's website: [http://www.petrocom.gov.gh/pdfs/Petroleum-Commission-\(Fees-and-Charges\).pdf](http://www.petrocom.gov.gh/pdfs/Petroleum-Commission-(Fees-and-Charges).pdf)

- **Ghana National Petroleum Corporation (GNPC)** is responsible for playing a commercial role for the state in oil and gas activities, specifically participating in oil and gas exploration, operations, and marketing of government's share of production. GNPC lifts on behalf of Ghana Group, which represent GNPC's equity and carried interest and the Government's royalties and any excess profit tax (additional oil entitlement) if the state elects to receive them in kind as specified in petroleum agreements. Through its marketing department, GNPC negotiates sales agreements with buyers (see below, section 4 for description of process).
- **The Ministry of Finance** is responsible for the overall fiscal policy formulation, administration and governance of petroleum revenues. Through its Energy, Oil and Gas unit, the Ministry plays a leading role in the implementation of PRMA in conformance with the other national level macro-fiscal policies. Specifically, the unit leads on petroleum revenue forecasting, resource allocation, and development of quarterly and annual reports on petroleum revenue utilization which are sent to Parliament for ratification yearly. With regards to first trades, the Ministry plays a key role in ensuring disbursements are made from PHF to the relevant agencies. It does this through the Controller and Accountant General's Department (CAGD) with the legal mandate over the custody, safety, and integrity over public funds.
- **The Bank of Ghana** has the oversight responsibility for the Ghana Petroleum Funds (GPF) and the Petroleum Holding Fund (PHF). The latter is the designated account to receive all petroleum proceeds, including revenues realized from GNPC's sale of Ghana Group's share of production. In practice, the Bank manages the day to day operations of the funds including monitoring receipts into PHF, effecting disbursements from PHF after receiving request or payment advise from CAGD, investments of GPF in qualifying instruments as prescribed by the Minister, and subsequent publication of semi-annual and annual reports on the funds. As per the PRMA, proceeds from petroleum sales must be credited into PHF within 60 calendar days after the receipt of petroleum or Bill of Lading date (BL). However, sale agreements between GNPC and buying companies requires payments to be made on or before 30 calendar days. A penalty and subsequent daily interests are charged in the event of delayed payments into the PHF.
- **Ghana Revenue Authority (GRA)** has the responsibility under the PRMA for the administration of fiscal terms in petroleum agreements including assessing, collecting and accounting for all petroleum revenues, which include royalty, surface rentals, Additional Oil Entitlement, Corporate Income Tax, dividends from GNPC, carried interest and participating interests, and investment income derived from accumulated petroleum funds. As a requirement in PRMA and practically for reporting and records purposes, GRA is notified by the GNPC and the Bank of Ghana anytime GNPC lifts petroleum resources and payments into PHF correspondingly.

Specifically, the Customs Division of the GRA is responsible for monitoring oil production as well as oversees exports of petroleum resources, and imports of production inputs at the producing fields. At the Floating Production Storage and Offloading (FPSO) vessels, the custom division has at least one officer stationed at all times and two officers during liftings. The officers monitor and keep records of quantity produced, lifted, vessel number, bill of lading details, etc.

### 3. Oil Production and Fiscal Terms

The oil and gas sector is growing in importance for Ghana's economy in terms of domestic government revenue, the use of gas for domestic power generation, merchandise exports, foreign exchange earnings and foreign direct investment. For instance, between 2012 to 2016, oil and gas contribution to overall merchandise exports has averaged 22 percent compared to traditional exports like cocoa and gold with average shares of 21 percent and 37 percent respectively during the same period<sup>6</sup>.

Since 2010, crude oil production has grown with new production from Tweneboa, Enyerra, and Ntomme (TEN) and Sankofa Gye Nyame (SGN) fields in 2016 and 2017 respectively. The average production per day has increased from 67,398 barrels in 2011 to 145,760 bpd in 2017, however, average production from Jubilee has reduced since 2015 from 102,498 barrels to 89,726 barrels as a result of intermittent shut downs caused by ongoing remediation works<sup>7</sup>.

#### 3.1 Jubilee Field

Discovered in 2007, the field spans over two oil blocks; West Cape Three Points and Deepwater Tano. It is operated by Tullow Ghana under a unitized agreement on behalf of its joint venture partners, GNPC, Anadarko, Kosmos and Petro SA. Since discovery of the first two wells Mahogany-1 (M-1) and Hyedua-1 (H-1), the government has approved further plans of developments to increase production and recover additional reserves. The Jubilee field has total estimated recoverable reserves of 466 million barrels and 465 billion cubic feet (bcf) of gas, however, this is likely to change to in excess of 600 million barrels and 610 bcf of export gas with advanced plans by the Tullow to integrate Jubilee Field reserves with Mahogany and Teak reserves within the West Cape Three Points Contract Area<sup>8</sup>.

Jubilee started production in November 2010 with an installed capacity of 120,000 bpd. However, actual production between 2011 and 2017 has averaged 86,585 bpd with an average equivalent annual production of 31,603,525 barrels. Out of this, GNPC is entitled to lift a 5% royalty on gross production and its equity share of 13.64% of net production.

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<sup>6</sup> Estimated contributions to merchandised exports based on author's calculation from data in Bank of Ghana Annual Report (page 18). Accessed June 24<sup>th</sup> on [https://www.bog.gov.gh/privatecontent/Publications/Annual\\_Reports/Annual%20Report%202016%20final%2024th%20June.pdf](https://www.bog.gov.gh/privatecontent/Publications/Annual_Reports/Annual%20Report%202016%20final%2024th%20June.pdf)

<sup>7</sup> Average figures estimated based on production data from GNPC

<sup>8</sup> Information retrieved from Ghana Petroleum Register: <https://www.ghanapetroleumregister.com/>

**Table 1: Jubilee Equity Shareholdings**

JUBILEE PARTNERS	EQUITY SHAREHOLDINGS
Tullow Ghana	35.48%
Kosmos	24.08%
Anardarko	24.08%
GNPC	13.64%
PETRO SA	2.73%

Source: Ghana EITI 2015 Oil and Gas Report

**Table 2: Jubilee Production**

Year	Average daily Production (bpd)	Number of production days	Annual Production (boe)
2011	67,398	359	24,195,895
2012	71,998	366	26,351,278
2013	99,685	357	35,587,558
2014	101,922	365	37,201,691
2015	102,498	365	37,411,661
2016	74,125	364	26,981,640
2017	89,726	365	32,749,975

Source: GNPC, Ministry of Finance

### 3.2 Tweneboa, Enyenra, and Ntomme (TEN) Field

The TEN field was discovered between in 2009 and 2011 and comprises at least ten separate hydrocarbon deposits in the western part of the Deepwater Tano block <sup>9</sup>. It has estimated reserves in excess of 240 million barrels of oil and 300 bcf of gas<sup>10</sup>. The field is operated by Tullow Ghana on behalf of its joint venture partners, GNPC, Anadarko, Kosmos and Petro SA. TEN started production in August 2016 with an installed capacity of 80,000 bpd. However, actual production between 2016 and 2017 has averaged 39,000 bpd and 56,034 bpd respectively. GNPC entitled to lift its equity share of 15% of net production and 5% royalties on gross production.

<sup>9</sup> Ghana Petroleum Register. <https://www.ghanapetroleumregister.com/ten>

<sup>10</sup> ibid

**Table 3: TEN Equity Shareholdings**

TEN Partners	Equity Share
Tullow Ghana	47.18%
Kosmos	17.0%
Anardarko	17.0%
GNPC	15.0%
Petro SA.	3.82%

Source: Ghana EITI 2015 Oil and Gas Report

**Table 4: TEN Production**

Year	Average daily production (bpd)	Number of production days	Annual Production (boe)
2016*	39,089	136	5,316,140
2017	56,034	365	20,452,577

\*Ten Field Production in 2016 commenced on 17th August

Source: GNPC, Ministry of Finance

### 3.3 Sankofa & Gye Nyame (SGN) Field

SGN Field is an integrated oil and gas development made up of the Sankofa Main, Sankofa East and Gye-Nyame fields, Sankofa East Cenomanian and Sankofa East Campanian fields, which are located about 60 kilometers off Ghana's Western Region coast. The fields have estimated reserves of about 500 million barrels of oil<sup>11</sup> and 1071 bcf of gas.<sup>12</sup> The project includes the development of gas fields whose production will be utilized entirely by Ghana's domestic market. SGN field commenced production in July 2017 earlier than planned, with installed capacity of 85,000 bpd. Production is expected to peak at 43,800 bpd in 2021, with daily gas production estimated at 171 mscfd.

<sup>11</sup> Information retrieved from Ghana Petroleum Register: <https://www.ghanapetroleumregister.com/>

<sup>12</sup> EITI Reconciliation Report, 2015



**Table 5: Sankofa Gye Nyame Field Equity Shareholdings**

<b>SGN Partners</b>	<b>Equity Share</b>
ENI	47.22%
Vitol	37.77%
GNPC	15.00%

Source: Ghana EITI 2015 Oil and Gas Report

### **3.4 Types of Oil Sold by GNPC**

Ghana's oil and gas contracting arrangements deviate slightly from the traditional concession system where government benefits only from royalties and taxes. Under the current system, Ghana benefits directly from royalties, equity share of net production, and taxes (including additional profit tax termed as Additional Oil Entitlement). Contractors, usually International Oil Companies (IOCs) are given the right to undertake petroleum exploration, development and production. Contractors benefit from ownership or equity interest over oil and gas found. Hence, resource rents (gross oil and gas production less royalties and cost) is divided between joint venture partners based on their interests.

Under these arrangements, GNPC represents the State as a Joint Venture Partner with an initial carried interest in all contracts as well as with the option to acquire additional interests as determined in each petroleum agreement. Oil and gas contractual arrangements preceding September 2016 allowed GNPC to hold an initial carried interest of at least 10% for exploration and development as well as an option to acquire an additional participating interest as per each petroleum agreement. However, this is changing under a new Petroleum (Exploration and Production) Law passed in 2016 since all petroleum agreements shall guarantee an initial participation interests of fifteen percent for exploration and development. Since oil production commenced in 2010, liftings by GNPC have encompassed only royalties paid in-kind, and equity oil (in the form of carried interest and participating interests). Based on a review of petroleum agreements covering the producing fields, the State can elect to receive AOE in kind. AOE were first assessed in 2017, but are yet to be concluded. Royalties are determined on the gross volume of petroleum produced while AOE is levied on Contractor's net cash flow earned and the after-tax inflation-adjusted rate of return with respect to a petroleum field. Importantly, where GNPC undertakes petroleum production, whether as a JV partner or otherwise, it is liable to pay royalties to the state and at the same time bears the responsibility for the sales of such royalties if the state elects to receive them in-kind.

**Table 6: Fiscal Terms for In-kind Revenues for Ghana’s Oil Producing Fields**

<b>Contract</b>	<b>West Cape Three Points Block (WCTP)</b>	<b>Deep Water Tano Block (DWT)</b>	<b>Offshore Cape Three Point Block (OCTP)</b>
Project Fields	Jubilee field  Greater Jubilee (Mahogany & Teak extension)	TEN field	Sankofa Gye Nyame field
Royalty rates (%)			
Crude Oil	5	5	10
Gas	5	3	5
Initial Carried Interest (%)	10	10	15
Participating Interest (%)	3.64	2.5	5
<b>Additional Oil Entitlement (%)</b>			
AOE Shares – Tier 1	7.50	5	10
AOE Shares – Tier 2	15	10	12.5
AOE Shares – Tier 3	25	15	16
AOE Shares – Tier 4		20	20
AOE Shares – Tier 5		25	
<b>Real Rate of Return (ROR) Thresholds (%)</b>			
ROR tier 1	25	19	12.5
ROR Tier 2	30	20	17.5
ROR Tier 3	40	25	22.5
ROR Tier 4		30	27.5
ROR Tier 5		40	

Source: Consultant analysis based on Ghana Petroleum Register:

<https://www.ghanapetroleumregister.com/>

## 4. First Trading Process for Oil and Gas

First trades in Ghana follows a standard administrative process. This involves several agencies with clear roles and oversight responsibilities over each stage in the sales process. The agencies include GNPC, GRA (custom division and petroleum unit), Bank of Ghana (petroleum unit), and the Ministry of Finance (Energy, Oil and Gas unit). Although the PRMA clearly defines the roles and responsibilities of each agency involved in the process, in practice this requires administrative guidelines to regularize the coordination roles, avoid conflicting data, and any potential conflict and overlaps that may emerge. It is understood that there are no such guidelines yet, however regulations are currently being developed to ensure effective coordination on the implementation of PRMA.

**Table 7: First Trade Process**

<b>Stage/Activity</b>	<b>Responsible Agency</b>
<b>Before Lifting</b>	
GNPC prepare schedule for liftings as agreed with its Joint Venture Partners and share initial schedule 3 months ahead of liftings with MoF, GRA and BoG,	GNPC
Notification/Schedule is shared with buyers with term contracts	GNPC
<b>Buyer Selection</b>	
Request for Proposal sent to pre-qualified trading partners – (applicable only to spot sales)	GNPC
Complete proposal assessment to select buyer – (applicable only to spot sales)	GNPC
Finalize offtaker contract with buyer – (applicable only to spot sales)	GNPC
<b>Liftings</b>	
Notification on the date of lifting and other relevant customs details sent to GRA (Customs division)	Field Operator/JV Partners
Lifting of crude oil made by buyers	Buyers
<b>After Liftings</b>	
Information of liftings, buyer details, quantity lifted, agreed price, expected revenue, etc. sent to Ministry of Finance, Bank of Ghana and GRA Petroleum unit	GNPC
Payment made into PHF 30 days from the date of lifting	Buyer
Advice sent to Ministry of Finance, GNPC, and GRA upon receipts of payment into PHF	Bank of Ghana
Quarterly reports generated and published on liftings and revenues from oil and gas sales	Ministry of Finance

Stage/Activity	Responsible Agency
Relevant transfers made to GNPC, Annual Budget Funding Amount, and Ghana Petroleum Funds as Guided by PRMA	Bank of Ghana

Source: GNPC, PIAC Reports (2015 – 2016) and GHEITI Oil and Gas Reports (2012-2015)

#### 4.1. Types of Contracts

The physical sale or delivery of crude oil and gas is commonly organized under spot contracts or term contracts. Spots sales are one-time open market transactions; however, the delivery of crude oil cannot be made instantly like other commodities but usually between 10 and 60 days after entering into a contract. Consequently, it is often referred to as near-term forward transaction as prices are determined at the time of contracts, and more often linked to prevailing market prices and conditions at the time of lifting.

Unlike spot transactions, term contracts allow buyers and sellers to negotiate for an agreed quantity of crude to be delivered within a specified period of time, usually for more than a year. The arrangements specify the quantity and quality of crude, point of lifting, the formula for determining the price which is typically linked to an international benchmark and a differential, lifting schedule, and payment terms among others. It allows both buyers and sellers to commit to an agreed quantity of barrels to alleviate any future uncertainties in demand or supply.

GNPC has adopted both spot and term contracts for the sale of its crude. It is understood that the process differs slightly between trades under term contracts and those under spot sales. There are slight differences in the buyer selection process under term contracts and under spot sales.

GNPC has two term contracts with Unipeac Asia and Litasco to lift from Jubilee and TEN accordingly. Based on the offtaker agreement between GNPC and Unipeac Asia in December 2011, 13,000 bpd of crude oil, (equivalent to 5 cargoes per calendar year) for 15.5 years from the Jubilee field is available for purchase by Unipeac. The contract terms mirrors the terms of the Loan Facility agreement between the government of Ghana and the China Development Bank in 2011<sup>13</sup>. The tenure is fifteen and a half years starting from February 2012. A similar agreement has been reached between Litasco and GNPC for the lifting of 4 cargoes of TEN crude oil per calendar year for 6 years.

The average liftings by the GNPC from Jubilee field is between 5 to 8 liftings per calendar year, therefore GNPC has adopted spot sales for any excess crude after the agreed quantity is lifted by Unipeac. For spot purchases, GNPC sends a request for proposals to a pre-qualified list of trading partners around two months ahead of lifting. For the period of this pilot study (2015-2017), GNPC had concluded sales

<sup>13</sup> [https://www.mofep.gov.gh/sites/default/files/reports/economic/CDB\\_Loan\\_Summary\\_050112.pdf](https://www.mofep.gov.gh/sites/default/files/reports/economic/CDB_Loan_Summary_050112.pdf)

and purchase agreements for crude oil with five buyers: Trafigura, Glencore, Litasco, Unipac Asia, and Springfield (see below, section 4.2 Buyers).

## 4.2 Buyer Selection Process

GNPC, has a pre-qualification procedure for potential trading companies to be placed on the list to receive RFPs. GNPC operate an open door policy where potential buyers can walk in to submit an expression of interest to be added to the pre-qualification list. This expression of interest goes through a due diligence process before a potential buyer is pre-qualified.

The selection of a specific buyer for a particular cargo starts with a request for proposal (RFP) sent to selected companies on GNPC's pre-qualified list based on initial assessment of the type of field and known experiences of the trading companies. For example, where liftings are expected from a new producing field, preference is given in the evaluation process to buyers with much more experience with new crudes.

A similar assessment and scoring criteria is adopted to assess proposals submitted by pre-qualified trading partners before a final buyer is selected (see below Table 8). An evaluation committee evaluates, scores and makes recommendations to GNPC management to approve the decision on a buyer. The evaluation and scoring is based on a set of criteria that weights each scoring parameter. It is noted that the evaluation criteria place high relevance to local content and participation as part of GNPC and the Government's plans to encourage local participation in the trading of crude.

**Table 8: GNPC's Evaluation Criteria for the Selection of Buyers**

Theme	Parameters	Indicators	Weightings (%)
Technical Evaluation	Ability to lift and strategy (15%)	Shipping	3%
		Experience in trading crudes	4%
		Refineries	3%
		Sales/Marketing strategy	5%
	Flexibility of marketing (10%)	Ownership of/access to dedicated vessels	2%
		Access to wider market	5%
		Access/partnership with refineries	3%
	Experience in marketing of new crude (10%)	Number of new crudes marketed	5%
		Marketing West African crudes	5%
	Health Safety and Environment (HSE) (5%)	Proof of good safety record	5%

Theme	Parameters	Indicators	Weightings (%)
	Capacity Building (5%)	Provision of hands on training for GNPC's staff (5%) OR Classroom training (2%)	5%
	Local Content (30%)	Evidence and terms of partnership	5%
Strength of local partner (market share)		10%	
In country presence and Investments/ fully owned Ghanaian company (30%)		15%	
	<b>Subtotal</b>		<b>75%</b>
Commercial Evaluation	Commercial terms (25%)	Strategy to achieve best price differential OR Price differential proposed	10%
		Marketing fee	5%
		Pricing option	5%
		Bank credit line or strong company financial status	5%
	<b>Subtotal</b>		<b>25%</b>
<b>Total Weightings</b>			<b>100%</b>

Source: GNPC, 2018

## 4.2 Buyers

During the period 1 January 2015 to 31 December 2017, GNPC made 22 sales of oil to five different buyers. The majority of the sales were to Unipet, with no more than two sales being made to any other buyer during the period.

In terms of volume, GNPC sold more than 66% of this oil to Unipet.

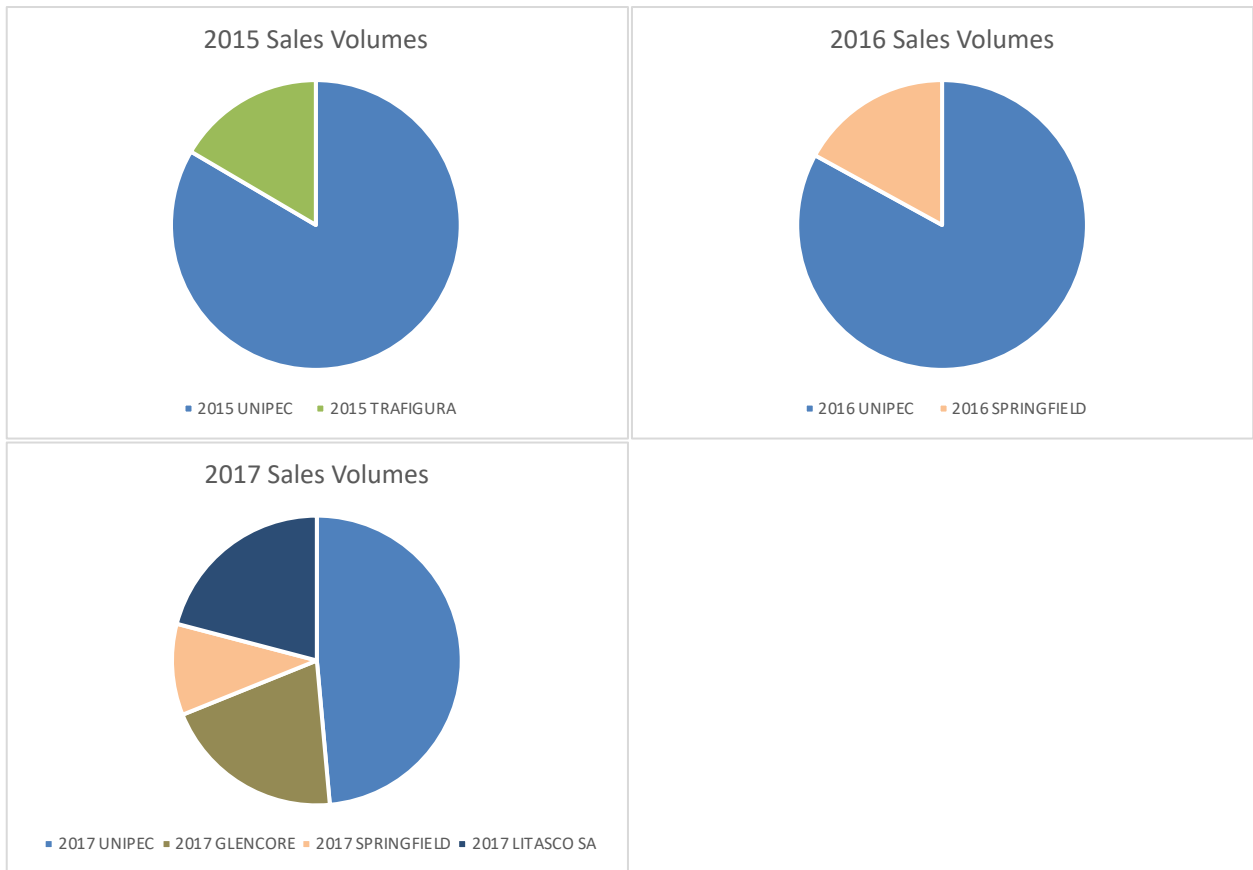
**Table 9: Buyers**

Buyer	Number of sales	Total volume sold (barrels)	Percentage
<i>Term sales</i>			
Unipet	15	14,392,851	67.4%
Litasco SA	2	2,046,130	9.6%
<i>Spot sales</i>			
Glencore	2	1,988,116	9.3%
Springfield	2	1,993,047	9.2%



Trafigura	1	948,118	4.4%
<b>TOTAL</b>	<b>22</b>	<b>21,368,262</b>	

**Figure 1: Analysis of buyers**



During 2015 GNPC only made one sale to a party other than Unipec, and that was to the international trading company Trafigura. Similarly, in 2016 there was only one sale other than Unipec. This time it was to the Ghanaian owned Springfield.

This pattern changed in 2017, with less than 50% of the oil being sold to Unipec, and sales being made to Glencore, Litasco and Springfield. This in part reflects an expansion in production, with the TEN field starting to produce oil.

It is possible that as Ghana’s oil production increases in the future, there will be further diversification in buyers.

### 4.3 Beneficial Ownership Disclosure Policy

The lack of beneficial ownership (BO) disclosure in first oil trades could pose significant corruption and conflict of interest risks as it could provide cover for individuals or companies to hide their identity in order to engage in improper actions. The EITI commodity trading guidance note recommends that national oil companies, as part of standard contracting or tendering, should collect and update beneficial

owners' information from approved buying companies. This is still new in Ghana as well as for GNPC as the institutionalization of BO reforms is still yet to be fully implemented. As part of GNPC's technical and commercial evaluation criteria, applicants are expected to provide information on their partnerships or relationship with refineries, vessels, as well as local partners. In addition, GNPC requires every trading partner to have a local presence either through partnership with a local company or have a subsidiary that is fully incorporated in Ghana and registered with the Petroleum Commission. GNPC does not currently require approved buyers to provide information on their beneficial owners. This is likely to change with Ghana's significant progress on its beneficial ownership disclosure process. The Companies (Amendments) law was passed in 2016 as part of Ghana's commitment on BO disclosure under the Financial Action Task Force (FATF), the Intergovernmental Action Group against Money Laundering in West Africa (GIABA) requirements, EITI Standard and the Open Government Partnership.

It is understood that despite the BO provisions in the 2016 Companies law, several inhibiting factors remain unaddressed. Specifically, even though the amended law is expected to require all companies incorporated and operating within Ghana to disclose their beneficial owners, less progress has been made with its implementation two years after the passage of the law. The law does not provide opportunity for public accessibility to BO data, though a new draft bill with BO provisions is very likely to address this challenge. Regulations to operationalize the amended provisions are yet to be drawn. The required infrastructure to collect and hold BO data is yet to be installed.

#### **4.4 Beneficial ownership of buyers**

None of the buyers provided sufficient beneficial ownership information on the reporting templates. Follow up e-mails were sent to buyers to request further information. We also carried out a search of ownership information available on each company's website and other websites such as the UK's Companies House. While publicly available information can give a great deal of beneficial ownership information, it often cannot give the full picture. For example, it is unclear from the information provided on the UK's Companies House website regarding Glencore whether the entity that acted as a buyer of Ghanaian oil is a 100% owned subsidiary. Glencore subsequently provided information as part of this project (see below).

##### **4.4.1 Glencore**

The Glencore entity listed as buyer on its reporting template was "Glencore Energy UK Ltd". Glencore confirmed by e-mail that Glencore Energy UK Ltd is 100% owned by Glencore UK Ltd which in turn is owned by Glencore plc. Glencore plc is a Jersey-registered company that is listed on the London and Johannesburg stock exchanges<sup>14</sup>.

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<sup>14</sup> Glencore was also listed on the Hong Kong stock exchange until January 2018.

#### **4.4.2 Litasco**

Publicly available information shows that Litasco was founded in 2000 and is based in Geneva, Switzerland. The company is the 100% wholly owned international marketing and trading company of LUKOIL. LUKOIL is listed on the Moscow, London and Frankfurt stock exchanges.

#### **4.4.3 Springfield Group**

On its reporting template, Springfield listed its buying entity as “Springfield Energy Ltd” and under beneficial owner, listed “GNPC”. We believe this is a misunderstanding of the information required. We contacted Springfield via e-mail to clarify the situation and to request complete beneficial ownership information. No response was received.

#### **4.4.4 Trafigura**

Trafigura is the world’s second largest private oil trader, and an open supporter of EITI. The company did not list its buying entity in its original submission but provided beneficial ownership information by e-mail when requested.

Trafigura’s buying entity for Ghanaian crude oil was Trafigura Pte Ltd. This is a Singapore-registered company which is ultimately 100% owned by Trafigura Group Pte Ltd (TGPL), also Singapore-registered. TGPL is in turn 100% owned by Trafigura Beheer BV, a Netherlands-registered company that is owned by its management and approximately 600 Trafigura employees.

#### **4.4.5 Unipec**

On its reporting template, Unipec listed its buying entity as “Unipec Asia Company Ltd” but gave no information on this company’s beneficial owners. In response to our e-mail request for beneficial ownership information, Unipec advised that, “Unipec Asia Company Ltd’s beneficiary owner is China International United Petroleum and Chemicals Co Ltd who is 100% owned by China Petroleum & Chemical Corporation (Sinopec)”. Sinopec is listed on the Hong Kong, Shanghai and New York stock exchanges.

### **4.5 Contract disclosure regime on oil and gas sales**

International best practice<sup>15</sup> calls on resource-endowed countries to commit to a transparent contracting regime, and ensure that information on contracts awarded, including the terms of the contract, are publicly disclosed as part of a strategy to reduce corruption risks. Consequently, many countries, especially those implementing EITI, are moving towards open contracting and contract transparency regimes particularly in relation to exploration and production contracts. Ghana is one of those countries and publishes upstream petroleum agreements on a dedicated website<sup>16</sup>. Based on a review of 51 EITI implementing countries and one subnational region, NRGI finds that 29 EITI implementing governments, including

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<sup>15</sup> Includes the Natural Resource Charter; Africa Mining Vision; Extractives Industries Transparency Initiative; Chatham House Guidelines for Good Governance in Emerging Oil Producing Countries

<sup>16</sup> <https://www.ghanapetroleumregister.com>

Ghana, have disclosed at least some of their natural resource contracts and license agreements, and several more are taking concrete steps to join their ranks<sup>17</sup>.

EITI guide on commodity trading transparency recommends to implementing countries to extend contract disclosure to trading contracts. GNPC does not have any policy on the disclosure of crude sales contracts. Despite this, GHEITI published the term contract between GNPC and Unipeac Asia but online accessibility remains difficult. The agreement is available on the GHEITI website.

#### **4.6 Price Determination**

Based on the offtaker agreement between GNPC and Unipeac, prices of crude oil are determined in reference to the daily average of Dated Brent price plus a differential and a fee for exercising a pricing option. The agreement provides for the buyer to choose one out of four pricing options for the dated Brent component. The first three options use five quotations of Platts Marketwire average mean of the dated Brent price while the last option uses monthly average of Platts Crude Oil Marketwire dated Brent price related to the Bill of Lading (BL) date. Any option exercised by buyers attracts a margin. The options are:

1. The average of 2 days prior to BL date; the BL date and the 2 days following the BL date,
2. The average of 5 consecutive dates going back from immediately before the BL date,
3. The average of 5 consecutive prices going forward from immediately the BL date,
4. The monthly average of Platts Crude Oil Marketwire dated Brent price quotations.

Although each sales agreement has specific pricing formula, GNPC confirmed that both spots and term contracts follow the same pricing arrangements.

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<sup>17</sup> NRG (2017): Past the Tipping Point?

<https://resourcegovernance.org/sites/default/files/documents/commodities-trading-trans.pdf>

## 4.7 Prices attained

**Figure 2: Analysis of price achieved vs Brent**



The prices achieved for oil sales during the period fluctuated, and are shown here in comparison to the Brent benchmark (see Figure 2). It should be noted that there is a reasonably close correlation between the prices obtained by GNPC for oil from both the Jubilee and TEN fields, and the prevailing Brent price. Indeed, during 2015 and 2016 the prices appear to match almost exactly. During 2017 there is more variation, which could be the result of a number of factors:

- The terms of the particular trades – the price being based on a Brent price at a date other than that of the Bill of Loading;
- The price obtained not being directly referable to Brent due to other factors - such as the newness of the TEN field;
- There are different sources of Brent oil prices that use slight different criteria. The Platts index used by GNPC is not publicly available.

It may be worthwhile further investigating these trades, and in particular the October 2017 sale to Litasco, to validate the pricing methodology. However, Litasco did not provide data for this report.

## **4.8 Transfers and expenditure of Oil and Gas proceeds**

### **4.8.1 Receipts from First Trades**

The PRMA sets out the management of revenues realised from the sale of crude oil and gas by GNPC. The Petroleum Holding Fund (PHF) is established under section (2) of the PRMA as the designated fund to receive and disburse petroleum revenues in accordance with the law. The Bank of Ghana has oversight responsibility to ensure that all revenues due from crude oil sales are paid into the PHF directly by buyers. GNPC does not receive any direct payments from buyers, an arrangement that differs from other oil producing countries e.g. Nigeria, where the national oil company receives payments and deducts its operational costs before transfer is made to central government.

### **4.8.2 Disbursement of First Trade Receipt**

According to the PRMA, GNPC is entitled to not more than 55 percent of the net cash flow from the carried and participating interests (CAPI) after deducting the equity financing costs on behalf of Ghana (see Figure 3). Despite this, the Parliament of Ghana can decide to reduce this amount after every three years of review. Currently, GNPC's share of revenues from CAPI has been capped at 30 percent. We understand that this cap was set by Parliament to allow more funds for the government budget. The disbursements to GNPC have further been capped at fifteen years from 2011. We understand that this is part of a process to corporatise GNPC and allow it to become more independent (but remain state-owned).

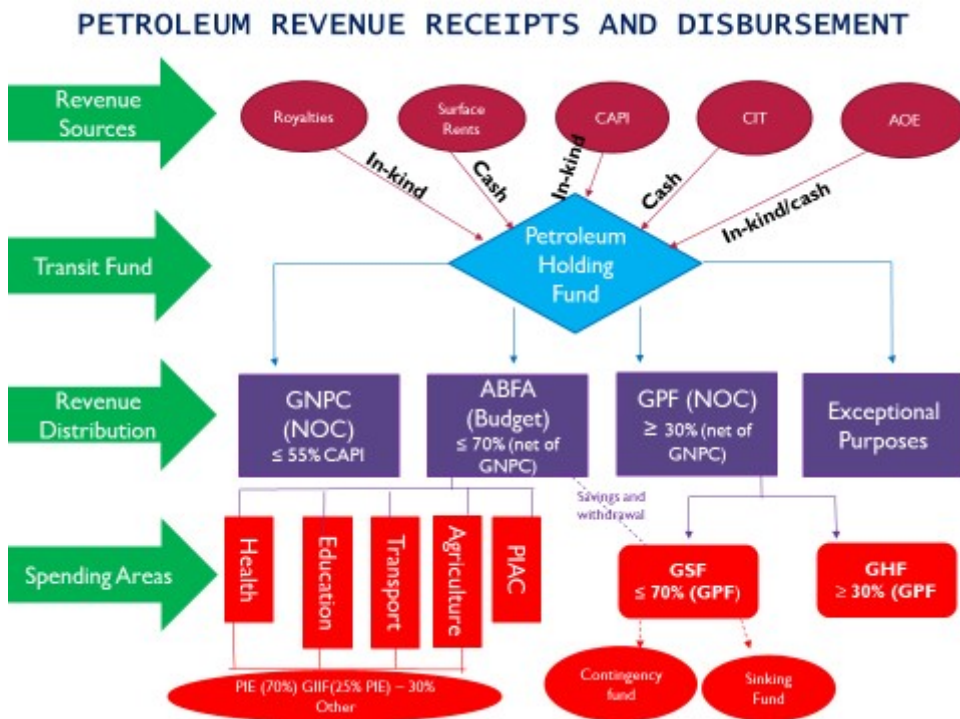
Petroleum revenues net of GNPC's allocation is further disbursed to:

- The Annual Budget Funding Amount (ABFA) - which is the allocation to the national budget,
- The Ghana Petroleum Funds (GPF) - comprising a heritage fund and a stabilization fund, and
- For exceptional purposes.

As per the PRMA, not more than 70 percent should be allocated to ABFA, and not less than 30 percent should be allocated to the GPF. The GPF is further disbursed between the Heritage Fund (not more than 30 percent) and the Stabilization fund (not more than 70 percent).

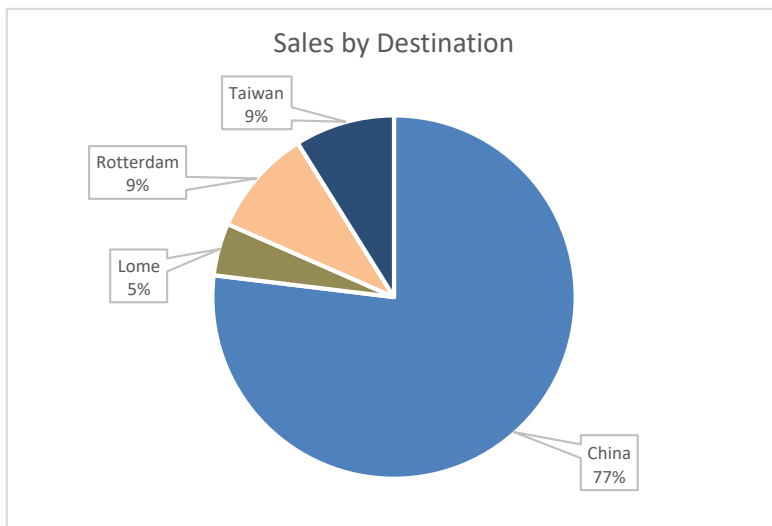


**Figure 3: Ghana Petroleum Revenue Receipts and Disbursement**



### 4.9 Sales by destination

**Figure 4: Sales by destination**



Data was collected on the destination of the oil on leaving Ghana. According to the data provided by GNPC and buyers, 77% of the oil sold by GNPC in 2015-17 went to China as its first destination, with smaller proportions going to Lome, Rotterdam and Taiwan. Clearly these may not be the ultimate destinations of the oil, as it may be onward transported or sold. This is particularly the case for oil going to Lome and Rotterdam.

## 5. Gas production and sales

Natural gas production in Ghana is still in its infancy and the country does not export any gas currently. Natural gas is produced in association with oil in the Jubilee and TEN fields. Gas production from TEN started in May 2017 and is expected to start from the SGN field in 2018. All of the state's share of indigenous gas production is sold by GNPC to its subsidiary, the state-owned Ghana Gas Company. Gas flows from the wellhead to the sub-sea pipeline end terminal (PET). Ghana Gas takes ownership of the gas at this point. The gas then flows through a pipeline to an onshore processing terminal, where the gas is treated. Ghana Gas then sells the gas to power generators in Ghana. To date, Ghana has not exported any natural gas. Indeed the country is a natural gas importer as it buys gas from Nigeria, which is delivered in the form of liquefied natural gas (LNG).

GNPC provided data on gas sales for the years 2015, 2016 and 2017. Volumes of gas sales are given in the table below. All gas is sold for \$2.90/mmbtu according to GNPC's data. This price is set by the regulator and is based on the price provided to upstream gas producers. Natural gas sales by GNPC to Ghana gas are subject to a quarterly reconciliation process. This process consists of a week-long meeting between representatives of all relevant stakeholders including GNPC, Ghana Gas, Ministry of Finance, Petroleum Commission, GRA and Bank of Ghana. This process includes reconciliation of volumes supplied at the PET to those sold onto Ghana Gas customers.

We were not able to obtain data from GNGC for purchases of natural gas from GNPC.

**Table 10: Gas production by volume in billion standard cubic feet**

	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Jubilee field</b>	24.2	24.2	30.5
<b>TEN fields</b>	n/a	n/a	0.3
<b>Total</b>	24.2	24.2	30.8

Source: GNPC

The key transparency issue associated with these gas sales would be how the price of \$2.90 is calculated. However, some stakeholders expressed concern that future gas production would be sold at higher prices and raised questions on the formula used to calculate prices. Concern was also expressed about GNGC's payment record but a lack of available data prevents further analysis of this situation.

## 6. Data Collection and Reconciliation

### 6.1 Data collected

Data was collected using the EITI template. This template was issued by the consultant team (with the assistance of GHEITI) to GNPC, Ghana Revenue Authority (including Customs), Bank of Ghana, Ghana Gas and the five buyers of oil from GNPC.

These parties were requested to provide as much detail as possible covering all liftings and sales of oil, and all sales of gas during the period 1 January 2015 to 31 December 2017. The completed templates were returned directly to the consultant team for analysis and reconciliation.

The table below (Table 11) shows a summary of the oil data collected through this process, after the reconciliation had taken place. The full data set can be found in Appendix 1, and an explanation of the reconciliation process in 4.6 below.

**Table 11: Summary of data on oil sales**

Field	Lifting	BILL OF LADING DATE	RECEIPT DATE	BILL OF LADING QUANTITY (BBL)	MARKET PRICE AVERAGE	DIFFERENTIAL	UNIT PRICE per BBL	CARGO VALUE US\$	MARKETING/ PRICING OPTION FEES per BBL	MARKETING/ PRICING OPTION FEES US\$	TOTAL CARGO VALUE US\$	EFFECTIVE PRICE
Jubilee	25th Lifting	5/2/15	6/3/15	986,276	51.377	-0.825	50.552	49,858,224	0.08	78,902	49,937,126	50.632
Jubilee	26th Lifting	25/3/15	24/4/15	988,069			52.976	52,343,943	0.08	79,046	52,422,989	53.056
Jubilee	27th Lifting	26/5/15	25/6/15	948,230	64.318	0.35	64.668	61,320,138	0.08	75,858	61,395,996	64.748
Jubilee	28th Lifting	30/6/15	30/7/15	911,343	60.922	-0.2	60.722	55,338,570	0.08	72,907	55,411,477	60.802
Jubilee	29th Lifting	9/9/15	9/10/15	948,054	47.088	0.075	47.163	44,713,071	0.08	75,844	44,788,915	47.243
Jubilee	30th Lifting	8/12/15	7/1/16	948,118	37.932	-0.24	37.692	35,736,464	-	-	35,736,464	37.692
Jubilee	31st Lifting	2/2/16	3/3/16	947,980	32.284	-0.2	32.084	30,414,990	0.08	75,838	30,490,829	32.164
Jubilee	32nd Lifting	14/5/16	13/6/16	995,152	48.568	-0.24	48.328	48,093,706	0.08	79,612	48,173,318	48.408
Jubilee	33rd Lifting	10/8/16	9/9/16	983,847			47.17	46,408,063	0.08	78,708	46,486,771	47.25
Jubilee	34th Lifting	23/10/16	22/11/16	949,320	49.662	-0.338	49.324	46,824,260	0.08	75,946	46,900,205	49.404
TEN	1st Lifting	8/12/16	7/1/17	996,459	52.59	-1.5	51.09	50,909,090	0.10	99,646	51,008,736	51.19
Jubilee	35th Lifting	27/12/16	26/1/17	984,163	53.596	-0.168	53.428	52,581,861	0.08	78,733	52,660,594	53.508
Jubilee	36th Lifting	9/3/17	7/4/17	947,806	54.277	-0.126	54.151	51,324,643	0.08	75,824	51,400,467	54.231
TEN	2nd Lifting	20/3/17	19/4/17	996,588	49.938	-0.75	49.188	49,020,171	-	-	49,020,171	49.188
Jubilee	37th Lifting	13/5/17	12/6/17	948,931	48.492	-0.39	48.102	45,645,479	0.08	75,914	45,721,393	48.182
TEN	3rd Lifting	18/6/17	18/7/17	995,657			45.273	45,076,379	0.10	99,566	45,175,945	45.373
Jubilee	38th Lifting	3/7/17	2/8/17	952,938			46.445	44,259,205	0.08	76,235	44,335,440	46.525
Jubilee	39th Lifting	8/9/17	10/10/17	953,094	56.046	0.486	56.532	53,880,310	0.08	76,248	53,956,558	56.612
TEN	4th Lifting	6/10/17	6/11/17	1,038,748	52.067	-0.65	51.417	53,409,306	0.05	51,937	53,461,243	51.467
Jubilee	40th Lifting	25/10/17	24/11/17	947,648	57.364	0.13	57.494	54,484,074	0.08	75,812	54,559,886	57.574
Jubilee	41st Lifting	16/12/17	16/1/18	992,459	64.015	-0.226	63.789	63,307,967	0.08	79,397	63,387,364	63.869
TEN	5th Lifting	20/12/17	19/1/18	1,007,382	62.47	-0.65	61.82	62,276,355	0.05	50,369	62,326,724	61.87
<b>Total</b>				<b>21,368,262</b>				<b>1,097,226,269</b>			<b>1,098,758,612</b>	

From this table it can be seen that 21.4 million barrels of oil were lifted and sold, with proceeds of US\$ 1.1 billion.

Although the data received was fairly complete, there were some parties who did not respond at all, and others where the data was incomplete, resulting in some gaps in the table. However, the data is sufficient to give a clear overview of the first trades of oil by GNPC during those three years.

## 6.2 Reconciliation of Oil and Gas Sales

Data was requested from nine sources, being GNPC, Bank of Ghana, Ghana Revenue Authority (Customs), Ghana Gas and 5 buyers of oil from GNPC.

Of these, all the sources provided information except for:

- Ghana Gas – who were unable to provide the information within the time allowed by the pilot project, and
- Litasco – who were unable to release data citing internal governance reasons.

Most of the data was provided using the EITI template, although Bank of Ghana used a different format.

All of the data was collated into a single table, in order to allow the reconciliation process to take place. This was carried out by the consultant team.

The following areas of reconciliation were the focus, and were considered in the following order:

1. Number of Liftings – This was consistent across all data sets;
2. Dates of liftings - This was consistent across all data sets;
3. Identity of buyers – This data provided by GNPC was used as the basis for approaching the buyers for data. Four out of five buyers responded, and this confirmed them as the buyers of those liftings. It has not been possible to obtain buyer confirmations from the other buyer. This corresponds to two liftings;
4. The volume lifted – There was one minor discrepancy identified which resulted from a transposition error in completing the template, and so was quickly rectified. Another very small discrepancy of 129 barrels arose in the data for the lifting on 20 March 2017. This is immaterial, and it has not currently been addressed;
5. Revenue received – Here there were originally five discrepancies, although all were relatively small, being approximately 0.1% to 0.2% of the value of the lifting. These were mostly resolved as being errors in completing the template, and only two remain unresolved. The first is an immaterial difference of US\$135 on the lifting on 23 October 2016. The second is a difference of US\$99,646 in the amounts reported by Springfield as the value of the lifting on 8 December 2016. The amount reported by Springfield is lower, and they have not provided any explanation;

6. Date of payment – Here there are some difference, although they are generally one or two days different, and may relate to the date value was expected to transfer, and the day it was notified as having been paid;
7. Pricing terms – Here there was little correlation, as different parties used the template in different ways to record either the underlying or effective (after differential) price of the oil.

## 7 Findings

1. It is possible to produce a commodity trading report for oil sales in Ghana that contains reconciled data from both GNPC as the seller and the buyers for the period 1 January 2015 to 31 December 2017. Further, it has been possible to produce a report that meets the scope set out in the terms of reference. The report contains:

- An overview of the legal and institutional frameworks,
- The scope of data agreed with GHEITI MSG and based on Annex of the TOR,
- Data collected from both GNPC and the buyers,
- A reconciliation of the data collected and an explanation of discrepancies,
- Findings and recommendations including potential expansion of the scope of commodity trading reporting.

It should be noted that one buyer (Litasco) did not provide any data for this report.

2. There is a high level of correlation between the data received from GNPC, the buyers, GRA and Bank of Ghana. We identified seven discrepancies, all minor and none material to the overall accuracy of the data. Four of these discrepancies were easily resolved as they were simply errors in completion of the template. Of the three remaining discrepancies, two are highly immaterial, leaving only one discrepancy of equating to just 0.2% of the value of the lifting in question. Although there are plausible explanations for all three of these discrepancies, we did not receive corrections or explanations from the parties who supplied the inconsistent data.

3. From the high level of correlation of the data, we conclude there are no systematic issues with the collection and reporting of data on GNPC oil sales.

4. The need for GNPC and the buyer companies to seek senior manager approval for the release of data to the consultants caused delays to the data collection process. In some cases, the approving manager was not based in Accra and was not familiar with the Commodity Trading Pilot project or wider EITI requirements.

5. While the buyers provided the name of the entity that acted as buyer, none provided beneficial ownership information on that buyer entity on the template.

We sent follow up e-mails to the buyers to ask specifically for beneficial ownership information.

6. The governance arrangements concerning GNPC's oil sales are good but there is scope for improvement to anticipate future growth in volume of oil sales. There is a clear legal basis for GNPC's activities and for the roles of other institutions in the process. There is also clear legal framework for governing the flow of revenues received. In particular, it is noteworthy that GNPC does not directly receive revenues from oil sales but buyers pay direct in the PHF held by the Bank of Ghana which then distributes the revenues based on a statutory framework. The data shows that in most cases buyers made payments within the mandated 30 day period from the date of the bill of lading and all within the statutory 60 days. Each institution understands its role in the process and we found no examples of overlap of mandates or conflicting mandates. However, the volume of oil sales is likely to grow as production on the TEN and SGN fields achieves plateau production levels and new fields come on stream in the future. We were unable to identify any administrative provisions to resolve any data discrepancies or disputes between institutions should these arise as GNPC's oil sales become more complex due to higher volumes, growth in the number of liftings and potential increase in the number of buyers.
7. GNPC has a clear buyer selection process with criteria for scoring each potential buyer to ensure only high quality buyers are pre-qualified to participate in the sales process. The buyer selection process also ensures that buyers with a strong local presence are preferred as 30% of the score weighting is allocated to local content. However, the criteria provide only guidance and the weightings may be adjusted to take into consideration specific circumstances. This introduces a degree of subjectivity into the buyer selection process.
8. Approximately two-thirds of GNPC's oil sales in 2015-2017 were destined for China in the first instance. This is largely as a result of the role Unipec played as it accounted for 15 of the 22 liftings in that period. The composition of buyers was more diverse in 2017 with Unipec accounting for just over half of liftings. The trend towards a more diverse range of buyers is likely to persist as GNPC seeks to market an increasing volume of oil that falls outside its term contract with Unipec.
9. GNPC offers four pricing options to potential buyers, all of which are based on dated Brent prices. As a result, achieved prices for Jubilee and TEN crude oil have usually been in line the average dated Brent for the same period. We identified some specific liftings where the achieved price was not in line with dated Brent, and some of these may warrant further investigation.

10. All of GNPC's natural gas sales are into the domestic market and to Ghana Natural Gas Company. These sales are all at the same price of \$2.90/mmBtu which is calculated on a formula set by the seller - GNPC. Natural gas production in Ghana is in its early stages. Gas production is likely to increase but there is unlikely to be international gas sales in the near future. GNPC is likely to renegotiate the gas price as gas production reaches plateau level.



## 8. Recommendations

Based on our experience of preparing this pilot commodity trading report and our findings set out above, we recommend that:

1. GHEITI publishes this report in full, including all the data, as soon as practicable. This will allow GHEITI to demonstrate its continued commitment to implementing the EITI Standard. Publication will also allow a wider range of stakeholders to comment on the commodity trading process and incorporate any feedback into future reporting cycles.
2. GHEITI produces a plan as soon as practicable for regular reporting of reconciled oil and gas sales data for Ghana's in-kind share. Further, we recommend that the report occur at least annually and commence with reporting 2018 data before mid 2019. Key elements of this plan are likely to include a realistic timetable for collecting the data, the reconciliation process and report production along with responsibilities identified as well as the resources required to implement this level of reporting.
3. GHEITI finds an existing process that can incorporate the reporting of the sale of Ghana's in-kind share of oil and gas production. An option is to incorporate this reporting into the Ministry of Finance's quarterly reporting of GNPC's oil sales. We recommend that this commodity trading reporting is not added to the existing EITI report as the time lag in producing EITI reports will render the commodity trading data less valuable. However, the commodity trading data could be appended to the relevant EITI report at that later date
4. At least one more cycle of producing a report on GNPC's annual oil and gas sales is implemented before any expansion of the reporting scope. This will allow the robustness of the reporting process to be tested before any expansion as this will bring additional requirements in terms of timeframe and resources required.
5. Any expansion of the scope of commodity trading reporting is carefully planned before implementation. It would be good practice if any expansion is conducted in stages so that lessons can be learned and appropriate amendments made at each stage. In addition, an extensive expansion (for example adding both IOC and mining reporting at the same time) would create considerable extra complexity and reporting burden. An option is to compile commodity trading reports at different times in the year in order to spread the data collection and reporting burden.
6. Ahead of the next commodity trading reporting cycle, GHEITI hold briefings for all relevant stakeholders, including GNPC, buyer representatives, the Bank of Ghana and GRA, to provide guidance on completing the commodity trading

reporting templates. GHEITI may also want to consider other awareness raising measures including production of written guidelines for completion of the templates and briefing documents that can be sent to stakeholder representatives who are not Ghana-based e.g. buyer management teams. Awareness raising and sensitising stakeholders to the benefits of commodity trading will become more important in the event of expansion of the reporting regime to other stakeholders. Buyers of oil and gas from IOCs or minerals from mining companies may not have any Ghana representation and may have little or no previous exposure to EITI.

7. To ensure that buyers provide accurate and comprehensive beneficial ownership information as part of their commodity trading reporting submissions, GHEITI undertakes awareness raising events on this subject. Beneficial ownership was the subject of much discussion at our presentation on the draft report and none of the buyers provided full beneficial ownership information in their original submissions and follow e-mails were sent to buyers. As commodity trading reporting expands and new buyers enter the market, there is likely to be an ongoing need to brief company representatives on the need and benefits of beneficial ownership information.
8. GHEITI uses the same definition for beneficial ownership as it uses for its other EITI reporting. This will allow consistency of reporting.
9. In addition, GNPC insists on the provision of beneficial ownership information as part of the pre-qualification process to become a potential buyer of its oil liftings. As part of the buyer selection process for each lifting, the buyer is asked to reconfirm that beneficial ownership information given to GNPC remains up to date.
10. GNPC also ensures that the buyer selection process is followed for each oil lifting and any departure from the process is on an exceptional basis and is documented. We understand that the buyer selection process is for guidance and that the criteria listed above are not used in every instance. This allows for a greater element of subjectivity and may undermine the integrity of the process.
11. In the buyer selection process, GNPC places considerable emphasis on local content (30% of the weighting). It would be good practice to measure the impact and benefit of this local content requirement and ensure that Ghana continues to obtain optimum benefit from these provisions.

# APPENDIX 1: Data Collected



## Standard Template for Reporting on 'First Trades' of Commodities

1. What oil is being sold?						2. Who is buying the product?				
Core information				Additional information		Core information		Additional information		
Data source	Lifting	Name of seller	Oil grade and quality (e.g. API) cargo by cargo disclosures only	Date of Sale - (Bill of lading date -- cargo by cargo disclosures only)	Type of state-owned oil sold (e.g. profit oil)	Invoice #	Buyer	Beneficial owner of buyer	Incoterms	Load port, terminal or depot

### 2015

GNPC	Jubilee 25th	GNPC	Jubilee Crude API 37.50	05-Feb-2015	Equity Production and Royalty Obligations	PIN/T/JC/15/002	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			37.5	05.02.2015	Ghana Group	PIN/T/JC/15/002B	CHINA INT. UNITED PET.			JUBILLE
Buyer			JUBILEE CRUDE OIL	20150205			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					05/02/2015					

GNPC	Jubilee 26th	GNPC	Jubilee Crude API 37.40	25-Mar-2015	Equity Production and Royalty Obligations	PIN/T/JC/15/003B	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs				25.03.2015	Ghana Group					JUBILLE
Buyer			JUBILEE CRUDE OIL	20150325			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					25/03/2015					

GNPC	Jubilee 27th	GNPC	Jubilee Crude API 37.30	26-May-2015	Equity Production and Royalty Obligations	PIN/T/JC/15/004	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			37.3	26.05.2015	Ghana Group	PIN/T/JC/15/004	UNIPEC			JUBILLE
Buyer			JUBILEE CRUDE OIL	20150526			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					26/05/2015					

GNPC	Jubilee 28th	GNPC	Jubilee Crude API 37.30	30-Jun-2015	Equity Production and Royalty Obligations	PIN/T/JC/15/005	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			37.3	30.06.2015	Ghana Group	PIN/T/JC/15/005	UNIPEC			JUBILLE
Buyer			JUBILEE CRUDE OIL	20150630			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					30/06/2015					

GNPC	Jubilee 29th	GNPC	Jubilee Crude API 37.30	09-Sep-2015	Equity Production and Royalty Obligations	PIN/T/JC/15/007	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			37.3	09.09.2015	Ghana Group	PIN/T/JC/15/007	UNIPEC			JUBILLE
Buyer			JUBILEE CRUDE OIL	20150909			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					09/09/2015					

### Standard Template for Reporting on 'First Trades' of Commodities

1. What oil is being sold?							2. Who is buying the product?			
Core information					Additional information		Core information		Additional information	
Data source	Lifting	Name of seller	Oil grade and quality (e.g. API) cargo by cargo disclosures only	Date of Sale - (Bill of lading date -- cargo by cargo disclosures only)	Type of state-owned oil sold (e.g. profit oil)	Invoice #	Buyer	Beneficial owner of buyer	Incoterms	Load port, terminal or depot

GNPC	Jubilee 30th	GNPC	Jubilee Crude API 37.40	08-Dec-2015	Equity Production and Royalty Obligations	PINT/JC/15/009	TRAFIGURA	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			37.4	08.12.2015	Ghana Group	PINT/JC/15/009	TRAFIGURA PTE LIMITED			JUBILLEE
Buyer		GNPC								
BOG					08/12/2015					

### 2016

GNPC	Jubilee 31st	GNPC	Jubilee Crude API 37.50	02-Feb-2016	Equity Production and Royalty Obligations	PINT/JC/15/002	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			37.5	02.02.2016	Ghana Group	PINT/JC/16/001	UNIPEC			JUBILLEE
Buyer			JUBILEE CRUDE OIL	20160202			Unipek Asia Company Limited		FOB	Jubilee terminal
BOG					02/02/2016					

GNPC	Jubilee 32nd	GNPC	Jubilee Crude API 37.30	14-May-2016	Equity Production and Royalty Obligations	PINT/JC/15/003B	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			37.3	14.05.2016	Ghana Group	PINT/JC/16/003	UNIPEC			JUBILLEE
Buyer			JUBILEE CRUDE OIL	20160514			Unipek Asia Company Limited		FOB	Jubilee terminal
BOG					14/05/2016					

GNPC	Jubilee 33rd	GNPC	Jubilee Crude API 37.10	10-Aug-2016	Equity Production and Royalty Obligations	PINT/JC/15/004	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs				10.08.2016	Ghana Group					JUBILLEE
Buyer			JUBILEE CRUDE OIL	20160810			Unipek Asia Company Limited		FOB	Jubilee terminal
BOG					10/08/2016					

GNPC	Jubilee 34th	GNPC	Jubilee Crude API 36.90	23-Oct-2016	Equity Production and Royalty Obligations	PINT/JC/15/005	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			36.9	23.10.2016	Ghana Group	PINT/JC/16/007	UNIPEC			JUBILLEE
Buyer			JUBILEE CRUDE OIL	20161023			Unipek Asia Company Limited		FOB	Jubilee terminal
BOG					23/10/2016					

### Standard Template for Reporting on 'First Trades' of Commodities

1. What oil is being sold?							2. Who is buying the product?			
Core information					Additional information		Core information		Additional information	
Data source	Lifting	Name of seller	Oil grade and quality (e.g. API cargo by cargo disclosures only)	Date of Sale - (Bill of lading date -- cargo by cargo disclosures only)	Type of state-owned oil sold (e.g. profit oil)	Invoice #	Buyer	Beneficial owner of buyer	Incoterms	Load port, terminal or depot

GNPC	Jubilee 35th	GNPC	Jubilee Crude API 36.90	27-Dec-2016	Equity Production and Royalty Obligations	PIN/T/JC/15/007	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			36.9	27.12.2016	Ghana Group	PIN/T/JC/17/001	UNIPEC			JUBILEE
Buyer			JUBILEE CRUDE OIL	20161227			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					27/12/2016					

GNPC	TEN 1st	GNPC	TEN Crude API 33.60	08-Dec-2016	Equity Production and Royalty Obligations	PIN/T/JC/15/009	SPRINGFIELD	info not available	FOB	TEN FPSO JOHN ATTA MILLS	
Customs			33.6	08.12.2016	Ghana Group	PIN/T/TC/16/001	SPRINGFIELD ENERGY LTD			TEN	
Buyer			TEN OIL FIELDS	API 60 F 34.20	MT BODERIA 8TH DEC 2016	TEN CRUDE OIL	GNPC PIN/T/TC/16/001	SPRINGFIELD ENERGY LTD	GNPC	GNPC	TULLOW GHANA LTD
BOG					08/12/2016						

### 2017

GNPC	Jubilee 36th	GNPC	Jubilee Crude API 36.50	09-Mar-2017	Equity Production and Royalty Obligations	PIN-T-JC-17-002	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			36.5	09.03.2017	Ghana Group	PIN/T/JC/17/002	UNIPEC			JUBILEE
Buyer			JUBILEE CRUDE OIL	20170309			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					09/03/2017					

GNPC	Jubilee 37th	GNPC	Jubilee Crude API 36.70	13-May-2017	Equity Production and Royalty Obligations	PIN-T-JC-17-003	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs			36.7	13.05.2017	Ghana Group	PIN/T/JC/17/003	UNIPEC			JUBILEE
Buyer			JUBILEE CRUDE OIL	20170513			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					13/05/2017					

GNPC	Jubilee 38th	GNPC	Jubilee Crude API 37.00	03-Jul-2017	Equity Production and Royalty Obligations	PIN-T-JC-17-004	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKRUMAH OFFSHORE
Customs				03.07.2017	Ghana Group					JUBILEE
Buyer			JUBILEE CRUDE OIL	20170703			Unipecc Asia Company Limited		FOB	Jubilee terminal
BOG					03/07/2017					

### Standard Template for Reporting on 'First Trades' of Commodities

1. What oil is being sold?							2. Who is buying the product?				
Core information					Additional information		Core information		Additional information		
Data source	Lifting	Name of seller	Oil grade and quality (e.g. API) cargo by cargo disclosures only	Date of Sale - (Bill of lading date -- cargo by cargo disclosures only)	Type of state-owned oil sold (e.g. profit oil)	Invoice #	Buyer	Beneficial owner of buyer	Incoterms	Load port, terminal or depot	
GNPC Customs Buyer BOG	Jubilee 39th	GNPC	Jubilee Crude API 36.70	08-Sep-2017	Equity Production and Royalty Obligations	PIN-T-JC-17-005	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKURUMAH OFFSHORE	
			36.6	08.09.2017	Ghana Group	PIN/T/JC/17/005	UNIPEC			JUBILEE	
			JUBILEE CRUDE OIL	20170908			Unipec Asia Company Limited		FOB	Jubilee terminal	
				08/09/2017							
GNPC Customs Buyer BOG	Jubilee 40th	GNPC	Jubilee Crude API 36.6	25-Oct-2017	Equity Production and Royalty Obligations	PIN-T-JC-17-006	UNIPEC	info not available	FOB	JUBILEE FPSO KWAME NKURUMAH OFFSHORE	
			36.6	25.10.2017	Ghana Group	PIN/T/JC/17/006	UNIPEC			JUBILEE	
			JUBILEE CRUDE OIL	20171025			Unipec Asia Company Limited		FOB	Jubilee terminal	
				25/10/2017							
GNPC Customs Buyer BOG	Jubilee 41st	GNPC	Jubilee Crude API 36.4	16-Dec-2017	Equity Production and Royalty Obligations	PIN-T-JC-18-001	GLENCORE	info not available	FOB	JUBILEE FPSO KWAME NKURUMAH OFFSHORE	
			36.4	16.12.2017	Ghana Group	PIN/T/JC/18/001	GLENCORE ENERGY UK LTD			JUBILEE	
		Ghana National Petroleum Company	Jubilee	43085			Glencore Energy UK Ltd	Glencore PLC	FOB	Jubilee Terminal	
				16/12/2017							
GNPC Customs Buyer BOG	TEN 2nd	GNPC	TEN Blend Crude API 34.20	20-Mar-2017	Equity Production and Royalty Obligations	PIN/T/TC/16-002	SPRINGFIELD	info not available	FOB	TEN FPSO JOHN ATTA MILLS	
			34.2	20.03.2017	Ghana Group	PIN/T/TC/16/002	SPRINGFIELD ENERGY LTD			TEN	
		TEN OIL FIELDS	API 60 F 34.20	DHT PUMA B/L 20TH MARCH	TEN CRUDE OIL	GNPC PIN/T/TC/16/002	SPRINGFIELD ENERGY LTD	GNPC	GNPC	TULLOW GHANA LTD	
				20/03/2017							
GNPC Customs Buyer BOG	TEN 3rd	GNPC	TEN Blend Crude API 34.40	18-Jun-2017	Equity Production and Royalty Obligations	PIN/T/TC/17-002	GLENCORE	info not available	FOB	TEN FPSO JOHN ATTA MILLS	
				18.06.2017	Ghana Group					TEN	
		Ghana National Petroleum Company	Ten	42895			Glencore Energy UK Ltd	Glencore PLC	FOB	Ten Terminal	
				18/06/2017							
GNPC Customs Buyer BOG	TEN 4th	GNPC	TEN Blend Crude API 34.30	06-Oct-2017	Equity Production and Royalty Obligations	PIN/T/TC/17-003	LITASCO SA	info not available	FOB	TEN FPSO JOHN ATTA MILLS	
			34.3	06.10.2017	Ghana Group	PIN/T/TC/17/003	LITASCO SA,			TEN	
				06/10/2017							
GNPC Customs Buyer BOG	TEN 5th	GNPC	TEN Blend Crude API 34.30	20-Dec-2017	Equity Production and Royalty Obligations	PIN-T-TC-18-001	LITASCO SA	info not available	FOB	TEN FPSO JOHN ATTA MILLS	
			34.3	20.12.2017	Ghana Group	PIN/T/TC/18/001	LITASCO SA,			TEN	
				20/12/2017							

3. What return did the country receive from the sale?											
		Core information					Additional information				
Data source	Lifting	Volumes sold (barrels)	Revenues received US\$	Price information: Unit price US\$/bbl	Price information: Pricing Option	Contract type	Pricing Option Fee US\$/bbl	Forex rate	Payment receipt date	Payment account	Destination (sellers only)

## 2015

GNPC	Jubilee 25th	986,276	49,937,126.43	50.612	5 DAYS BEFORE B/L	Term	\$0.08		6-Mar-15	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		986,276	\$49,937,126.43	\$51.38	0.08	0.825		3.4164	07.03.2015	BANK OF GHANA - PETROLEUM FUND ACCT	
Buyer		986,276.00	49,937,126.43	50.632	5 DAYS PRIOR B/L	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		986,276	49,937,126.43	50.63					6-Mar-15		

GNPC	Jubilee 26th	988,069	52,422,988.86	52.976	5 DAYS BEFORE B/L	Term	\$0.08		24-Apr-15	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		988,069	\$52,422,988.86								
Buyer		988,069.00	52,422,988.86	53.056	5 DAYS PRIOR B/L	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		988,069	52,422,988.86	53.06					24-Apr-15		

GNPC	Jubilee 27th	948,230	61,395,996.04	64.668	MONTH AVERAGE	Term	\$0.08		25-Jun-15	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		948,230	\$61,395,996.04	\$64.32	0.08	0.35		4.2715	25.06.2015	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		948,230.00	61,395,996.04	64.748	FIXED MONTH	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		948,230	61,395,996.04	64.75					25-Jun-15		

GNPC	Jubilee 28th	911,343	55,411,477.09	60.722	5 DAYS BEFORE B/L	Term	\$0.08		30-Jul-15	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		911,343	\$55,411,477.09	\$60.92	0.08	-0.2		4.0237	30.07.2015	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		911,343.00	55,411,477.09	60.802	PRICING OPTION	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		911,343	55,411,477.09	60.80					30-Jul-15		

GNPC	Jubilee 29th	948,054	44,788,915.12	47.163	5 DAYS AFTER B/L	Term	\$0.08		9-Oct-15	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		948,054	\$44,788,915.12	\$47.09	0.08	0.075		3.795	09.10.2015	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		948,054.00	44,788,915.12	47.243	5 DAYS AFTER B/L	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		948,054	44,788,915.12	47.24					9-Oct-15		

3. What return did the country receive from the sale?											
		Core information					Additional information				
Data source	Lifting	Volumes sold (barrels)	Revenues received US\$	Price information: Unit price US\$/bbl	Price information: Pricing Option	Contract type	Pricing Option Fee US\$/bbl	Forex rate	Payment receipt date	Payment account	Destination (sellers only)

GNPC	Jubilee 30th	948,118	35,736,463.66	37.692	5 DAYS AFTER B/L	Spot	n/a		7-Jan-16	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		948,118	\$35,736,463.66	\$37.93	0	-0.24		3.8005	07.01.2016	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		948,120	\$35,736,463.66								
BOG		948,118	35,736,463.66	37.69					7-Jan-16		

## 2016

GNPC	Jubilee 31st	947,980	30,490,828.72	32.084	5 DAYS BEFORE B/L	Term	\$0.08	n/a	3-Mar-16	BANK OF GHANA PETROLEUM FUND ACCOUNT	TAIWAN
Customs		947,980	\$30,490,828.72	\$32.28	0.08	0.2			03.03.2016	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		947,980.00	30,490,828.72	32.164	5 DAYS PRIOR B/L	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	TAIWAN
BOG		947,980	30,490,828.72	32.16					3-Mar-16		

GNPC	Jubilee 32nd	995,152	48,173,318.02	48.328	5 DAYS AFTER B/L	Term	\$0.08	n/a	13-Jun-16	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		995,152	\$48,173,318.02	\$48.57	0.08	-0.24		3.8471	13.06.2016	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		995,152.00	48,173,318.02	48.408	5 DAYS AFTER B/L	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		995,152	48,173,318.02	48.41					13-Jun-16		

GNPC	Jubilee 33rd	983,847	46,486,770.75	47.17	5 DAYS AFTER B/L	Term	\$0.08	n/a	9-Sep-16	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		983,847	\$46,486,770.75								
Buyer		983,847.00	46,486,770.75	47.25	PRICING OPTION	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		983,847	46,486,770.75	47.25					9-Sep-16		

GNPC	Jubilee 34th	949,320	(1) 46,900,340.90	49.324	MONTHLY AVERAGE	Term	\$0.08	n/a	22-Nov-16	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		949,320	\$46,900,340.90	\$49.66	0.08	-0.338		3.9663	22.11.2016	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		949,320.00	46,900,205.28	49.404	PRICING OPTION	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		949,320	46,900,205.28	49.40					22-Nov-16		



3. What return did the country receive from the sale?											
		Core information					Additional information				
Data source	Lifting	Volumes sold (barrels)	Revenues received US\$	Price information: Unit price US\$/bbl	Price information: Pricing Option	Contract type	Pricing Option Fee US\$/bbl	Forex rate	Payment receipt date	Payment account	Destination (sellers only)

GNPC	Jubilee 35th	984,163	52,660,593.80	53.428	MONTHLY AVERAGE	Term	\$0.08	n/a	26-Jan-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		984,163	\$52,660,593.80	\$53.60	0.08	-0.168		4.2171	26.01.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		984,163.00	52,660,593.80	53.508	PRICING OPTION	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		984,163	52,660,593.80	53.51					26-Jan-17		

GNPC	TEN 1st	996,459	51,008,736.21	51.09	5 DAYS AROUND B/L	Spot	\$0.10	n/a	6-Jan-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	LOME
Customs		996,459	\$51,008,736.21	\$52.59	0.1	-1.5		4.2171	06.01.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		BBL 996,459	(2) 50,909,090.31		AVERAGE (US\$/BBL) 52.590	GNPC-TEN COLA	N/A	N/A	7TH JANUARY 2017	FEDERAL RESERVE BANK OF NEWYORK	CHINA WATERS
BOG		996,459	51,008,736.21	51.19					7-Jan-17		

## 2017

GNPC	Jubilee 36th	947,806	51,400,467.19	54.151	5 DAYS BEFORE B/L	Term	\$0.08	n/a	7-Apr-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		947,806	\$51,400,467.19	\$54.28	0.08	-0.126		4.3194	07.04.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		947,806.00	51,400,467.19	54.231	5 DAYS PRIOR B/L	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		947,806	51,400,467.19	54.23					7-Apr-17		

GNPC	Jubilee 37th	948,931	45,721,393.44	48.102	5 DAYS BEFORE B/L	Term	\$0.08	n/a	12-Jun-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		948,931	\$45,721,393.44	\$48.49	0.08	-0.39		4.3234	12.06.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		948,931.00	45,721,393.44	48.182	5 DAYS PRIOR B/L	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		948,931	45,721,393.44	48.18					12-Jun-17		

GNPC	Jubilee 38th	952,938	44,335,440.45	46.445	5 DAYS BEFORE B/L	Term	\$0.08	n/a	2-Aug-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	TAIWAN
Customs		952,938									
Buyer		952,938.00	44,335,440.45	46.525	PRICING OPTION	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	TAIWAN
BOG		952,938	44,335,440.45	46.53					2-Aug-17		

3. What return did the country receive from the sale?											
		Core information					Additional information				
Data source	Lifting	Volumes sold (barrels)	Revenues received US\$	Price information: Unit price US\$/bbl	Price information: Pricing Option	Contract type	Pricing Option Fee US\$/bbl	Forex rate	Payment receipt date	Payment account	Destination (sellers only)
GNPC	Jubilee 39th	953,094	53,956,557.53	56.532	MONTHLY AVERAGE	Term	\$0.08	n/a	8-Oct-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		953,094	\$53,956,557.53	\$56.05	0.08	0.486		4.3919	10.10.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		953,094.00	53,956,557.53	56.612	FIXED MONTH	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		953,094	53,956,557.53	56.61					10-Oct-17		
GNPC	Jubilee 40th	947,648	54,559,885.95	57.494	MONTHLY AVERAGE	Term	\$0.08	n/a	24-Nov-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		947,648	\$54,559,885.95	\$57.36	0.08	0.13		4.3836	24.11.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		947,648.00	54,559,885.95	57.574	FIXED MONTH	Term contract				BANK OF GHANA - PETROLEUM FUNDS ACCOUNT	CHINA
BOG		947,648	54,559,885.95	57.57					24-Nov-17		
GNPC	Jubilee 41st	992,459	63,387,363.87	63.869	5 DAYS AFTER B/L	Spot	n/a	n/a	15-Jan-18	BANK OF GHANA PETROLEUM FUND ACCOUNT	CHINA
Customs		992,459	\$63,387,363.19	\$64.10	0	-0.226		4.4201	15.01.2018	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		992,459.00	63,387,363.87	-	-	Spot	NA	NA	15/01/2018	nk of Ghana - Petroleum Funds Account #0210-8236-6	
BOG		992,459	63,387,363.87	63.869					16-Jan-18		
GNPC	TEN 2nd	996,588	49,020,170.54	49.188	5 DAYS AFTER B/L	Term	\$0.00	n/a	19-Apr-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	China
Customs		996,588	\$49,020,170.54	\$49.94	0	-0.75		4.3194	19.04.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer		(3) BBL 996,459	49,020,170.54		AVERAGE (US\$/BBL) 49.938	GNPC-TEN COLA	N/A	N/A	19TH APRIL 2017	FEDERAL RESERVE BANK OF NEWYORK	CHANA WATERS
BOG		996,588	49,020,170.54	49.19					19-Apr-17		
GNPC	TEN 3rd	995,657	45,175,945.06	45.273	5 DAYS AROUND B/L	Spot	\$0.10	n/a	18-Jul-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	Rotterdam for orders
Customs		995,657	\$45,175,945.06								
Buyer		995,657.00	45,175,945.06	-	-	Spot	NA	NA	19/07/2017	nk of Ghana - Petroleum Funds Account #0210-8236-6	
BOG		995,657	45,175,945.06	45.37					18-Jul-17		
GNPC	TEN 4th	1,038,748	53,461,243.32	51.417	in a period commencing 3	Term	\$0.05	n/a	5-Nov-17	BANK OF GHANA PETROLEUM FUND ACCOUNT	rotterdam for orders
Customs		1,038,748	\$53,461,243.32	\$52.07	0.05	-0.65		4.3805	05.11.2017	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer											
BOG		1,038,748	53,461,243.32	51.47					6-Nov-17		
GNPC	TEN 5th	1,007,382	62,326,724.34	61.82	in a period commencing 3	Term	\$0.05	n/a	19-Jan-18	BANK OF GHANA PETROLEUM FUND ACCOUNT	China
Customs		1,007,382	\$62,326,724.34	\$62.47	0.05	-0.65		4.422	19.01.2018	BANK OF GHANA - PETROLEUM FUNDS ACCT	
Buyer											
BOG		1,007,382	62,326,724.34	61.87					19-Jan-18		

4. Other information			
Core information			
Data source	Lifting	Source of data	Notes

## 2015

GNPC	Jubilee 25th	GNPC Crude Oil Sales Profile for the Month of February 2015; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-131
Buyer			
BOG			

GNPC	Jubilee 26th	GNPC Crude Oil Sales Profile for the Month of March 2015; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-136
Buyer			
BOG			

GNPC	Jubilee 27th	GNPC Crude Oil Sales Profile for the Month of May 2015; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-143
Buyer			
BOG			

GNPC	Jubilee 28th	GNPC Crude Oil Sales Profile for the Month of June 2015; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-147
Buyer			
BOG			

GNPC	Jubilee 29th	GNPC Crude Oil Sales Profile for the Month of September 2015; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-154
Buyer			
BOG			

		4. Other information	
		Core information	
Data source	Lifting	Source of data	Notes

GNPC	Jubilee 30th	GNPC Crude Oil Sales Profile for the Month of December 2015; Marketing CSNB and BoG Report	No pricing option fee
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-164
Buyer			
BOG			

## 2016

GNPC	Jubilee 31st	GNPC Crude Oil Sales Profile for the Month of February 2016; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-170
Buyer			
BOG			

GNPC	Jubilee 32nd	GNPC Crude Oil Sales Profile for the Month of May 2016; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-174
Buyer			
BOG			

GNPC	Jubilee 33rd	GNPC Crude Oil Sales Profile for the Month of August 2016; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-181
Buyer			
BOG			

GNPC	Jubilee 34th	GNPC Crude Oil Sales Profile for the Month of October 2016; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-188
Buyer			
BOG			

4. Other information			
Core information			
Data source	Lifting	Source of data	Notes

GNPC	Jubilee 35th	GNPC Crude Oil Sales Profile for the Month of December 2016; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-193
Buyer			
BOG			

GNPC	TEN 1st	GNPC Crude Oil Sales Profile for the Month of December 2016; Marketing CSNB and BoG Report	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	TC-004
Buyer		GNPC /SPRINGFIELD	SUCCESSFUL LIFTING
BOG			

## 2017

GNPC	Jubilee 36th	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-199
Buyer			
BOG			

GNPC	Jubilee 37th	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-205
Buyer			
BOG			

GNPC	Jubilee 38th	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-210
Buyer			
BOG			

4. Other information			
Core information			
Data source	Lifting	Source of data	Notes

GNPC	Jubilee 39th	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-216
Buyer			
BOG			

GNPC	Jubilee 40th	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-221
Buyer			
BOG			

GNPC	Jubilee 41st	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	JC-226
Buyer			
BOG			

GNPC	TEN 2nd	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	TC-009
Buyer		GNPC /SPRINGFIELD	SUCCESSFUL LIFTING
BOG			

GNPC	TEN 3rd	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs			TC-014
Buyer			
BOG			

GNPC	TEN 4th	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	TC-020
Buyer			
BOG			

GNPC	TEN 5th	GNPC Crude Oil Commercial Invoice, Cargo BL Docs	
Customs		BILL OF LADING, GNPC DECLARATION TO CUSTOMS	TC-025
Buyer			
BOG			

#### Remaining Discrepancies

- (1) US\$ 135 There is a very immaterial discrepancy here between the Revenue Received amounts reported. However, this is too small to cause concern, and appears to result from decimal place roundings
- (2) US\$ 99,646 There is a discrepancy here in the Revenue Paid amount reported by Springfield. No explanation has been provided by Springfield. It appears that the Springfield reported value does not include the pricing option fee, but this has not been confirmed by Springfield. Also, if this is the case, Springfield have not confirmed whether this is a clerical error, or that they have not applied the pricing option fee in their records.
- (3) BBL 129 There is an immaterial discrepancy here between the volume amounts reported. Springfield do not appear to have included the price differential in their data. However, this is too small to cause concern.