Guyana Petroleum Cost Recovery Audit

Recommendations from Audit Report

ihsmarkit.com

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Audit Report Recommendations Final

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Prepared By:

Andrew Day
Managing Director | Upstream Consulting
andrew.day@ihsmarkit.com
+971.50.658.0499

Muhammed Hassanali
Associate Director | Upstream Consulting
Muhammed.hassanali@ihsmarkit.com
+971.50.654.8502

Paul Ferguson
Senior Advisor | Upstream Consulting
paul.ferguson@ihsmarkit.com
+65.9641.1345

Tarun Ohri
Senior Advisor | Upstream Consulting
Tarun.ohri@ihsmarkit.com
+91.99585.35864

IHS Markit | Upstream Consulting
Office Park Block A,
Dubai Internet City
Dubai United Arab Emirates
PO Box 500395
Tel: +971 4363 5800

The following submission encompasses the Recommendations from the Audit Report for the Petroleum Cost Recovery Audit Consultancy. This report provides a summary of the recommendations made as to the validity or not of the expenses which may be included in the Cost Bank

Specifically, this report covers:

- *Executive Summary*
- *Objective and Scope of Audit*
- *Pre-Contract Costs*
- *General Ledger & Cost Bank*
- *Force Majeure*
- *Co-Venture Costs*
- *Statutory Payments*
- *Drilling*
- *SURF*
- *Seismic*
- *Materials*
- *Vendor Contracts*
- *Contract Procurement*
- *Venture Office & Payroll*
- *Intercompany Charges*
- *TRIAD & Time Writing*
- *Work Plan and Budget*
- *Insurance*
- *Accruals*
- *Withholding Tax*

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Table of Contents

Executive Summary 3
1. Introduction 11
2. Objectives of the Audit 11
3. Audit Scope 12
4. Pre-Contract Costs 13
5. Audit Approach & Methodology 13
6. General Ledger & Cost Bank 25
7. Force Majeure 30
8. Co-Venture Costs 31
9. Statutory Payments 33
10. Drilling and Rig Benchmarks 34
11. Subsea | Umbilical | Risers | Flowlines 41
12. Seismic Review and Benchmark 44
13. Materials Review and Benchmark 46
14. Contract Procurement 47
15. Vendor Contracts & Invoice Review 50
16. TRIAD & Time Writing 52
17. Venture Office & Payroll 55
18. General Ledger Intercompany Charges 57
19. Annual Work Plan and Budget 60
20. Insurance 62
21. End of Year Accruals 63
22. Withholding Tax 64
23. Annual Overheads Charges 64
Appendices 65

Executive Summary

IHS Markit (IHSM) has been engaged by the Government of Guyana (GoG) to independently audit the cost recovery claim submission by Esso Exploration and Production Limited (EEPGL) for the period between 1999 and 2017 within the Stabroek Contract Area that amounts to a total of $1,677,774,727 in accordance with the prevailing Production Sharing Agreement(s).

This report provides a summary of the recommendations made in the Audit Report with regards to the validity of expenses submitted by EEPGL for inclusion in the Cost Bank.

The audit terms of reference are to identify expenses that;

- the Audit Team consider have been added in error,
- do not relate to Petroleum Operations, or
- insufficient evidence and transparency have been provided to allow the Audit Team confidence in the validity of the expenses.

Supporting reports providing detailed analysis of the issues raised in this report, the models and all supporting files used throughout the course of this Audit have been shared with GoG and are listed in Section 1.

The Audit has established that GoG has reasonable grounds to dispute $**214.4 million** plus overhead adjustments of the costs currently included by EEPGL in the Cost Bank. This amount represents 12.8% of the cumulative cost recovery balance as of Q4 2017 Statement. The disputed costs fall into three main categories:

Key Highlights

- This Audit has applied industry best practice for conducting Petroleum Cost Recovery Audits and leveraged International Audit Standards such as: The Expenditure Audit Procedure of the Council of Petroleum Accountant Societies and Norwegian Oil and Gas recommended guidelines for petroleum cost audits.
- The summary of audit observations which are included in this report are intended to provide the GoG with information regarding:
    - Whether costs being recovered are aligned with the governing PSA and accounting procedure
    - EEPGL's transparency in the submission of documents supporting cost being recovered
    - How EEPGL's exploration and development costs compare against benchmarks set by field development models and industry standards
- The total expenditure that has been recorded in the Q4 2017 Cost Recovery Statement covering all activities during the audit period (1999 to 2017) amounts to $1,677,774,727. A lump sum amount of $460,237,918 has been included within the 2016 Production Sharing Agreement and is referenced as Pre-Contract Costs in this report. Most of the total expenditure ($1,218 million or 73%) was incurred between 2016 and 2017 and is referenced as Post–Contract Costs in this report. The audit included both Pre-Contract and Post-Contract Costs.
- For the period between September 2000 and November 2008, EEPGL declared Force Majeure, during which time no in country activity was conducted by EEPGL. Limited desk-based reservoir analysis activities continued during this period with minimal costs being recorded, the activities conducted were appropriate based on the premise that no in country activities could continue.
- EEPGL's Cost Bank represents the total recoverable costs and will be paid through the Oil and Gas production as part of the calculation of Cost Oil/Gas as defined in the PSA. It should be noted that any adjustments to the Cost Bank will not mean funds are directly received by the GoG. Instead, reducing the amount in the Cost Bank reduces the total Cost Oil/Gas attributable to EEPGL, therefore increasing Profit Oil/Gas which is shared 50/50 as per Article 11 of the 2016 PSA.

- During the audit period (1999 to 2017), there was no production within the Stabroek Block. Therefore, considerations for Production Valuation, Cost Oil entitlements and resulting Cost Bank reductions were not required. Such consideration will form a crucial part of cost recovery audits in the future.
- The 2016 Stabroek PSA does not contain production area or field level ring fencing provisions, therefore cost recovery has been treated as applying to the entire block. As a result, continued exploration and development costs from all fields within the Stabroek Area have been included in EEPGL's cost recovery statements. The Audit Team checked that no costs related to other EEPGL operated exploration blocks in Guyana were added to the Stabroek Block Cost Bank.
- As per Section 3.1 (L), Interest and Financing costs are recoverable under the 2016 PSA. However, EEPGL confirmed during the audit period that no interest or financing charges have been included in cost recovery – the Audit Team has confirmed that no interest and financing costs are included in the amount presented in the Q4 2017 Cost Recovery Statement.
- The Audit Team wishes to highlight that nearly 50% of the intercompany charges being included in the Q4 2017 Cost Recovery Statement have limited transparency that falls short of the expected level of accounting documentation. Even after several requests for further clarification EEPGL has not been able to demonstrate adequate justification for these charges, and therefore the Audit Team recommends that they are reasonably denied for inclusion in the Cost Bank.
- During this audit, a total of $31.43 million has been identified as being added to the 2017 Cost Recovery Statement without being recorded in the General Ledger. This sum related to payments made by the Co-Venture partners, many of which were incurred to prior to the Co-venture partners being signatories to the PSA. The validity of these costs for inclusion in the Cost Bank has not been demonstrated by EEPGL and should be excluded from the Cost Bank.
- The Audit Team notes that the treatment of value-add tax (VAT) is aligned with the PSAs and industry standards. No charges for VAT have been included in the Cost Recovery Statements submitted by EEPGL.
- EEPGL has not done enough to keep GoG appraised of the activities and costs associated with the development. In particular, the annual Work Program and Budget submission does not meet expectations, and not justifications are provided at the end of each year to justify and scope changes or cost overruns. Both of these are requirements in the PSA.
- Insurance certificates have not been provided to ensure that full coverage has been maintained throughout the audit period. Each partner procures coverage for its share of the Block interest, only EEPGL has provided premium details and invoices. It has not been able to confirm that Hess and CNOOC are meeting their responsibilities in this regard.

General Ledger

- The General Ledger provided by EEPGL records expenditure at the transactional level, providing account balances - the Statement of Expenditure and Receipts (SE&R) is generated using the General Ledger. In turn the Cost Recovery Statement is developed using the closing balances of the SE&R.
- During the audit period, the costs have been spread across two different accounting systems. EEPGL provided annual extracts in a Microsoft Excel format for each between 2004 and 2017. The combination of these accounting system extracts between 2004 and 2017 is herein referred to as the "General Ledger".
- EEPGL confirmed data prior to 2004 is not available as it has been purged in accordance to their internal data retention policies. EEPGL however have provided a summary of costs incurred during this period.
- Reconciliation between the Cost Recovery Statements and the Statement of Expenditure and Receipts reports resulted a variance of $31.43 million – this was found to be related to Co-Venture Costs which were added to the Cost Recovery Statement in 2017.
- Prior to 2016 the SE&R reconciled with the General Ledger for all years. In 2016 and 2017 the following variances were noted:

- 2016 –$32,170 to be removed from the Cost Bank. EEPGL, stated that it will reverse this charge in 2020.
- 2017 – Allocation error of $449,805 in 2016 that has been reversed in 2017.

Co-Venture

- Co-Venture costs identified in the SE&R reconciliation amount to $31.43 million. Of this total, EEPGL was able provide contracts and invoices for $2.6 million demonstrating that these expenses were related to Stabroek Petroleum Operations. A further $28.83 million of this total was incurred prior to the Co-Venturers being signatories to the PSA. No documentation evidence provided to justify a further $0.95 million of costs which were incurred under the 2016 PSA. $29.79 million should be removed from the Cost Bank.

Statutory Payments

- All statutory payments included in the General Ledger (and hence the Cost Bank) have been accounted for and received by the appropriate parties.

Drilling Benchmarks

- Well Costs make up 54% of the total expenditure during the audit period.
- Review of technical information and Final Well Reports suggest that EPPGL conducted drilling operations in a manner aligned with best oil field practice.
- The Audit Team benchmarked the overall well costs and found they were in line with industry norms for the type and duration of wells drilled (and services utilized) given the prevailing surface and subsurface conditions.

Rig Rates Benchmark

- The Audit Team benchmarked the rig rates for the Deep-Water Champion and the Stena Caron using IHSM's proprietary RigPoint database.
- **Deep-Water Champion** drillship was on long term hire to ExxonMobil and for drilling the Liza-1 well was one of the high ever recorded day rates for an offshore rig.
- **Stena Caron** drillship was tendered specifically for the Drilling program in the Stabroek Block. The benchmark analysis suggests that the day rate consistently at the lower end of the market, representing good value for Guyana.

SURF Benchmark

- Subsea, Umbilicals, Risers, Flowlines (SURF) were at the design and contracting stage during the audit period with limited costs expended. However, as the contracts for supply and installation had been awarded during this period, the Audit Team benchmarked the value of these awards.
- The contracts amount to approximately $321.1 million. The benchmark assessment was 12% higher than this amount meaning the SURF contract awards compare favorably with industry benchmarks and expected costs
- Comparing the proposed durations for installation within the contract with the benchmark shows that the plan is optimized and will take less than the industry average.

Seismic

- 34,194 km of 2D and 27,307 km^2 of 3D seismic was acquired within the Stabroek block during the audit period (1999 – 2017). The Audit Team has reviewed all underlying contracts for seismic acquisition provided by EEPGL.
- A total expenditure of $167.1 million for seismic activities was included in the Cost Bank during the audit period. , these costs have been identified in the General Ledger and reviewed.

- $500,000 of seismic related costs are recorded in the Cost Bank in 2000/01. There is no evidence of any seismic activity during this period and no evidence has been supplied to justify these costs. This amount should be removed from the Cost Bank.
- Acquisition for offshore seismic data is primarily a function of prevailing offshore vessel charter rates. The day rates in the contracts have been benchmarked against IHS Markit's proprietary SeismicBase database. 2013 rates were towards the high side of the market whilst dayrates in 2015 and 2017 were at the lower end of market rates.

Materials, Inventory & Warehousing

- During the audit period, the materials are predominantly the casing, tubing and other downhole materials used to construct the wells. Total spend on well materials was $143.3 million.
- EEGPL record materials transactions when materials are taken from the shorebase. Any unused materials are credited back to the General Ledger when materials are returned to the shorebase. Within the General Ledger, it is not possible to positively link materials return transactions to the materials supplied transactions.
- During the audit period EEPGL recorded expenditure of approximately $40.4 million on materials where the Vendor details are not recorded in the General Ledger, this means that individual material entries in the General Ledger cannot be traced back to specific material purchase contracts. These costs relate to material issued from the shore base for use in Petroleum Operations. Although general material purchase contracts for similar materials were provided and reviewed, no evidence was provided to justify the costs of these materials. This amount should be removed from the Cost Bank.
- GoG were not invited to witness material counts during the audit period, despite this being a specific requirement in the PSA.
- EEPGL does not charge for the inventory whilst it is held at the shore base. However, a total of $349,098 related to inventory adjustments has been recorded in the General Ledger but no supporting evidence has been provided to show that the materials arrived at the shorebase or how much they cost. This total should be removed from the Cost Bank.
- EEPGL have recorded warehousing costs of $8.35 million between 2015 and 2017, warehousing costs are recoverable in accordance with the 2016 PSA.

Vendor Contract Procurement

- Vendor spend over the audit period amounts to a total of $1,067 million, of this, procurement details for $953 million or 89% relate to contracts and invoicing.
- The majority of the contracts reviewed, amounting to expenditure of $613.5 million or 64% of the value of those reviewed contracts, were awarded on a competitive basis and are aligned with PSA provisions. However, 25% of the value ($240 million) were single sourced and 11% ($99.5 million) were partial single source contracts.
- For the procurement and award of contracts conducted on a competitive basis, the procurement process provides adequate transparency to meet the PSA requirements.
- Of the single source procurement awards, EEPGL has not demonstrated the competitiveness of the rates within the contract for contracts with a combined value of $28,476,876. This amount should be removed from the Cost Bank.

Intercompany Charges (General Ledger)

- The Audit Team identified a total $78.4 million recorded in the General Ledger which the Audit Team believe relate to Intercompany Charges that have not been reviewed as part of the TRIAD review or the Contracts review. The records in the General Ledger records are not always clear with information missing on many entries. The supporting documentation provided lacks details of what the charge relates to or why it applies to the Stabroek block. all suspected Intercompany Charges over $1,000 have been queried wit EEPGL who provided limited additional support documentation. Following review of all available information, the Audit Team do not have sufficient information about transactions amounting to $59.6 million which should be removed from the Cost Bank.

Vendor Contract & Invoice Review

- The Audit Team have reviewed 66 contracts, assessed invoices against contract scope, and verified invoices for $926 million or 87% of the of $1,067 million attributable to vendor spend over the audit period. This included all the high value contracts and a representative sample of the lower value contracts.
- From these 66 contracts, there are issues with 6 contracts with a combined value of $6.2 million that should be removed from the Cost Bank.

TRIAD

- ExxonMobil's TRIAD system is used to capture expenses incurred by Affiliated Companies. Each charge is recorded in TRIAD as "Jobs" which are then charged directly back to EEPGL at cost. The expenses recorded in TRIAD generally include time writing, intercompany and third-party charges, and travel expenses paid by Affiliated Companies.
- The total expenditure recorded in the TRIAD Files, EEPGL provided amounts to $391 million spread over the Audit period.
- Around 11.4% of the expenditures recorded in TRIAD have insufficient clarity in the documentation provided to allow full audit tracing and accordingly the Audit Team recommends these costs to be removed from the Cost Bank. These charges cover all categories of expenditures recorded in TRIAD and consists of:
  - Time writing – $4,450,745
  - Intercompany – $34,501,198
  - Third Party Charges – $5,705,788
  - Other Expenses – $62,912

Venture Office & Payroll

- EEPGL advised that the Guyana Venture Office was established in 2014.
- A total of $24,024,391 has been recorded in the Statement of Expenditure and Receipts (SE&R) during the Audit period.
- Payroll started to be recorded in the General Ledger in July 2014 which coincides with the establishment of EEPGL's office in Guyana. Payroll expenses between 2014 and 2017 total $13,516,352.
- As a result of the auditing of the Venture Office & Payroll charges, deficiencies in the reporting of expenditure have been identified and significant amounts totaling $4,555,002 do not have adequate transparency and justification. The Audit Team recommends this amount removed from the Cost bank.

Insurance

- Insurance is required by the PSA, applicable laws, rules, and regulations and of such type and in such amount as is customary in the international petroleum industry in accordance with good oil field practice appropriate for Petroleum Operations.
- EEPGL stated that each partner, EEPGL, Hess and CNOCC carry insurance cover for their respective interest in the PSA.
- Copies of insurance certificates have not been provided by any partner, contrary to the PSA requirement.

- EEPGL has maintained it's 45% share of Control of Wells (CoW), Operators Extra Expense (OEE) and Third-Party Liability (TPL) insurance coverage. The premiums for insurance coverage and invoices have been reviewed. The total amounts paid by EEPGL falls within the expected industry norms.
- It is not clear that Hess and CNOOC have maintained insurance coverage, limited or no premiums have been identified.
- CAR insurance has been taken out to cover the SURF facilities and activities. Premiums amount to a little under 2% of the SURF contract value indicating the insurance premium is in line with industry levels of 1-3%.

End of Year Accruals

- End of Year (EoY) accruals have been used to allow for the value of work undertaken to be recorded in the year that expense occurred when the invoice and payment for that work is not received until the following year. All accrual entries in the General Ledger should be accompanied by a reversal (negative entry of the same amount) when the actual invoice was received in the following year. The sum of all accruals and reversals should therefore be zero.
- As a result of the EoY accrual analysis the Audit Team considers that the General Ledger and the Cost Bank are overstated by at least $190,727.
- The General Ledger includes a total of $94,814,113 of End of Year accruals. These accruals should be reversed, and the actual transactions incorporated in the 2018 accounts,

Cost Bank Adjustment

- The following adjustments to EEPGL's Cost Bank are recommended as the result of this audit.
- All values in the table below are detailed in this final report and in the 14 accompanying detailed reports

Table E-1 Summary of recommended Cost Bank adjustments

Basis for Cost Bank Adjustment	Defined Cost Removal ($)	Inadequate Supporting Documentation ($)	Suspected Approval of Minister Required ($)	Total ($)
General Ledger (GL)	32,170			**32,170**
GL Intercompany		59,745,435		**59,745,435**
Co-Venture	28,829,420	961,378		**29,790,798**
Contract Procurement – Deep-water Champion		15,082,260		**15,082,260**
Contract Procurement – single source contracts		13,394,616		**13,394,616**
Vendor Contracts & Invoices		6,158,390		**6,158,390**
Materials		40,424,778		**40,424,778**
Inventory	349,098			**349,098**
TRIAD Time Writing (excess hours)	4,344,422			**4,344,422**
TRIAD Other Expenses	62,912			**62,912**
TRIAD Intercompany		34,501,198		**34,501,198**
TRIAD Third Party Charges		5,431,333	274,140	**5,705,473**
Venture Office	537,563	4,092,154		**4,629,717**
End of Year Accruals	190,727			**190,727**
Seismic		500,000		**500,000**
Total	**34,346,312**	**179,791,542**	**274,140**	**214,411,994**

- GoG has reasonable grounds to dispute $214.4 million plus associated overhead adjustments of the costs currently included by EEPGL in the Cost Bank. This amount represents 12.8% of the cumulative cost recovery balance as of Q4 2017 Statement. The disputed costs fall into three main categories:

- "Defined Costs for Removal" amount to $34.4 million – these costs have either been included in error, are not aligned with PSA provisions, are not related to Petroleum Operations, or are considered to fall outside of industry best practice.
- "Inadequate Supporting Documentation" was provided for $179.8 million – these costs suffer from a transparency issue as the cost basis, nature and justification of these costs could not be established with the furnished documentation even after several rounds of documentation requests from the Audit Team. Although these costs may be valid, the GoG has the right to the transparency of how these costs relate to Stabroek Petroleum Operations.
- "Minister Approval Required" for $0.27 million – these costs have been identified as predominantly R&D related costs which require Minister Approval before they can be considered cost recoverable. No evidence of Minister Approval has been provided.

- GoG may consider permitting cost recovery against the value in the Cost Bank on an agreed adjusted basis until issues and discrepancies can be resolved in accordance with Annex C Section 1.5 (B) of the Stabroek Block Production Sharing Agreement.

Recommended Process Improvements

The PSA requires very little in terms of information and Ministry / government approvals prior to expenditures being incurred. Therefore, there is very little understanding of the planned activities, contract awards and eventual costs that will be submitted to the Cost Bank. Whilst not explicitly required by the PSA, the following items would significantly improve both the understanding of what is happening and the transparency concern the costs.

Work Program and Budget

The current Work Program & Budget format is insufficient to make sensible assessment of the upcoming activities. A suggested format for this submission has been included in this report. The current submission is the lowest possible detail to meet the PSA requirement but does not meet the spirit of the PSA.

As part of the Work Program & Budget submission, it is recommended that a set of manhour rates charged for affiliates are agreed and fixed for the year and it is also recommended that a cap on the manhours that can be charged is included. The current process of multiple rate adjustments throughout the year and some employees charging what might be considered excessive hours each month does not meet expected practice.

At the end of each year, with the submission of the Cost Recovery Statement, EEPGL should provide a comparison against each of the budget items to justify changes and overruns experienced during the year. This should include a summary of the "Jobs" performed by affiliates each year with summaries of employees charging to each Job and the progress made.

Insurance

It is a requirement of the PSA that appropriate insurance coverage is maintained. Evidence of this coverage, through providing copies of insurance certificates should be provided at the beginning of each coverage period. There has been no evidence provided that Hess and CNOOC have current insurance coverage.

General Ledger

The General Ledger is the single record of all transactions made relating to expenses for Petroleum Operations. However, as a source of justification for Cost Recovery there are some areas which could be improved.

- Vendor ID/Names are not included for all transactions
- Accruals and offsets do not have a unique reference tying them to the original transaction
- Material returns are not tied back to the original material charge
- Accounting adjustments are many and often applied to values that have been offset from the General Ledger

For future Audits, EEPGL should be asked to provide extracts from the General Ledger that only includes the items included in the Cost Recovery Statement and their final values, removing the accounting adjustments and changes.

All offsets and accruals which net out to zero should also be removed. All charges should be referenced back to the Work Program & Budget.

EEPGL should be encouraged to ensure transactions are recorded in a timely manner unlike with the Co-Venture costs which have been added years after the event.

Intercompany Charges

Intercompany Charges reported either through the TRIAD system or recorded directly to the General Ledger are raised using Intercompany Charge receipts. However, these receipts mostly do not contain the same level of details as would be expected of a third-party invoice and as there is no contract/scope of work document associated with these charges and little details on the receipt itself. This makes it very difficult to know what the charges apply to and if they are relevant. All Intercompany Charges should be confirmed through a detailed contract/scope of work and relevant details included on the invoice/receipts.

Vendor Contracts

In many jurisdictions, there are additional approvals required prior to awarding large contracts (e.g. over a certain $ value) or contracts to single source suppliers. A process to notify when these large contracts are being tendered and prior justification before awarding single source contracts would alleviate many of the governments concerns.

Inventory

The GoG is entitled to witness any annual inventory count of materials stored at the shorebase. To date, this has not happened. Even though inventory is not charged to the project, the GoG should insist on attending these counts to get a better idea of the materials being used and the process being followed.

1. Introduction

The following report summarizes the recommendations made in the Audit Report with regards to the validity of the inclusion of expenses submitted by EEPGL for inclusion in the Cost Bank.

The Audit Report is accompanied by 14 detailed reports which provide further discussion and analysis regarding the formulation of the recommendations. These reports are available to GoG and are titled as follows:

1) **Audit Report**

   <u>Detailed Reports</u>

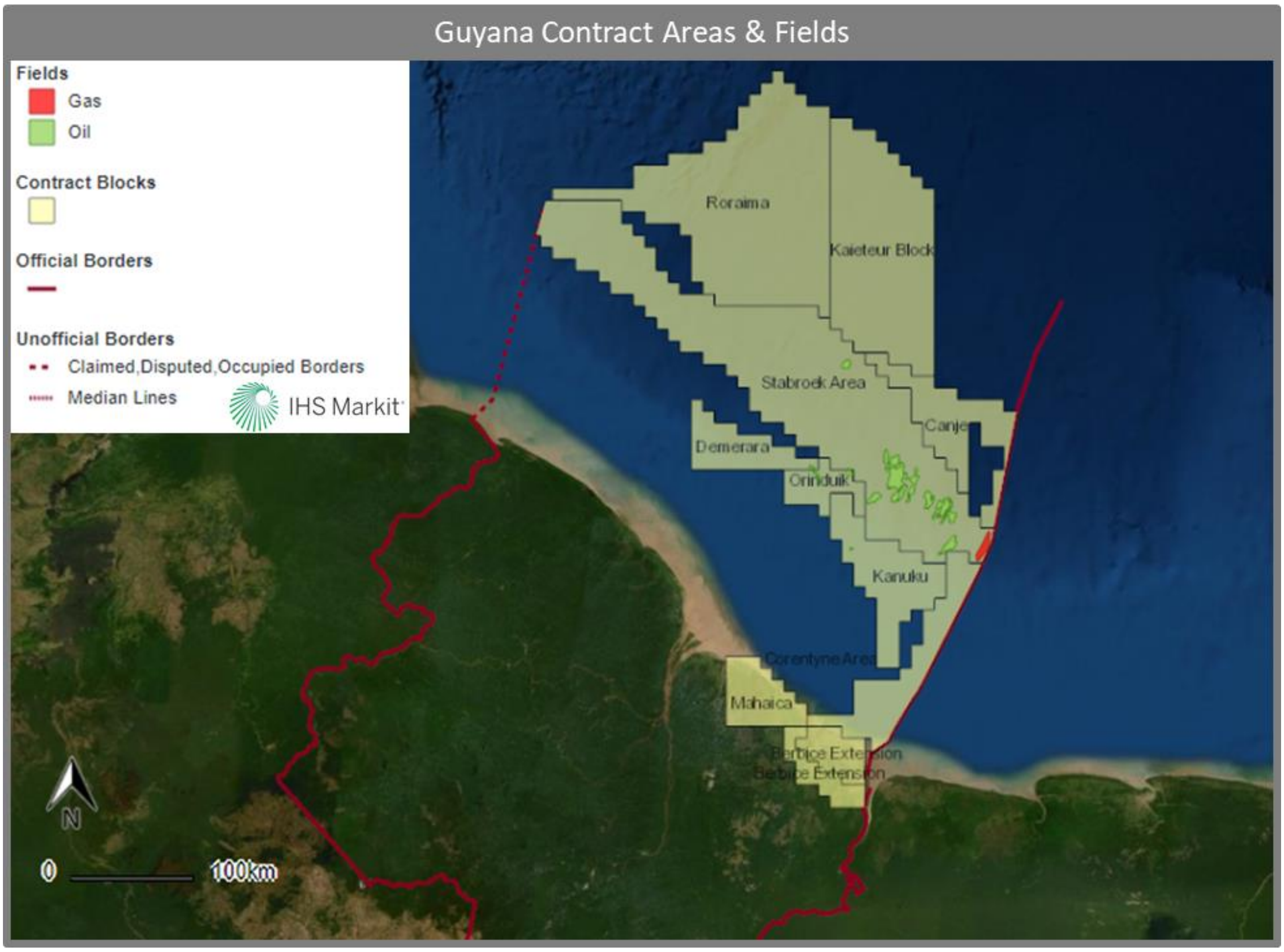
2) General Ledger & Cost Bank Reconciliation
3) Statutory Payments
4) Drilling
5) SURF
6) Seismic
7) Materials
8) Vendor Contracts
9) Contract Procurement
10) TRIAD & Time Writing
11) Venture Office & Payroll
12) Annual Work Program & Budget
13) Insurance
14) End of Year Accruals
15) Withholding Tax

In conducting this independent audit IHSM has applied industry best practice for conducting Petroleum Cost Recovery Audits and leveraged International Audit Standards such as: The Expenditure Audit Procedure of the Council of Petroleum Accountant Societies and Norwegian Oil and Gas recommended guidelines for petroleum cost audits. For methodology statement please see the Initial Audit Report.

2. Objectives of the Audit

Pursuant to the Government's audit rights contained in the 2016 Petroleum Sharing Agreement (Annex C, Section 1.5), IHS Markit (IHSM) is working with the Government of Guyana (GoG) to audit and examine available documentation and records for charges relating to the activities undertaken within the Stabroek Contract Area (see figure 1.1 below) between 1999 and 2017 by the Stabroek Block partners, represented by Esso Exploration and Production Guyana Limited (EEPGL).

Figure 2-1 Map of the Stabroek Contract Area



As of Q4 2017, total recoverable costs submitted by EEPGL amount to $1,677,774,727 - recorded in the Q4 2017 Cost Recovery Statement for the Stabroek Area.

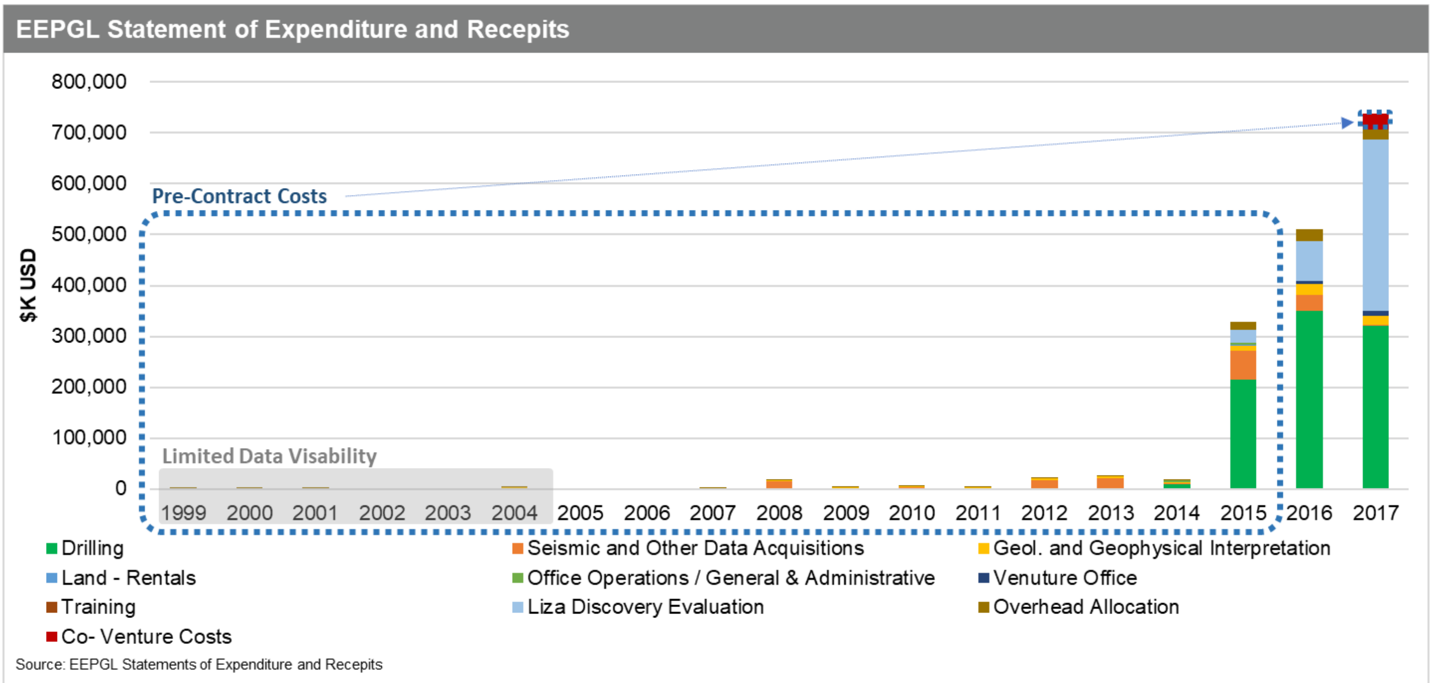
The objective of this audit is to evaluate whether this expenditure is in line with the provisions of the Production Sharing Agreement(s) (PSAs) and thus if costs are entitled for cost recovery.

Details for IHS Markit's approach and methodology for delivering the Consultancy to the Government of Guyana is available in the Initial Audit Report.

3. Audit Scope

The scope of this assignment included a review of all exploration and development costs submitted for recovery by EEPGL between 1999 to the end of Q4 2017 with the Stabroek Block. The total expenditure that has been recorded in the Q4 2017 Cost Recovery Statement covering all activities during the audit period (1999 to 2017) amounts to $1,677,774,727, see Figure 0-1 for annual breakdown. A lump sum amount of $460,237,918 has been included within the 2016 Production Sharing Agreement and is referenced as Pre-Contract Costs in this report. Most of the total expenditure ($1,218 million or 73%) was incurred between 2016 and 2017 and is referenced as Post–Contract Costs in this report. The audit included both Pre-Contract and Post-Contract Costs.

Figure 3-1 Annual breakdown of expenditure in Stabroek Block



Notes:

- *Costs for other Contract Block(s) within Guyana where EEPGL has an interest are not part of the scope of this audit.*
- *EEPGL has purged data prior to 2004 from its systems in line with its data retention policy and data visibility during this period is limited.*

4. Pre-Contract Costs

Pre-Contract Costs refers to all expenditure incurred prior to the signing of the 2016 PSA and includes the lump sum of $460,237,918 as detailed in the 2016 PSA, Annex C - Section 3.1 (k). The Government of Guyana has confirmed that these costs have not previously been subject to audit.

The Audit Team has assessed these costs on a best effort basis as not all the detailed information from the earliest years of the audit period are available. Throughout the audit process EEPGL provided documentation for most of the costs incurred prior to 2016 and even though these have been included as a fixed lump sum in the 2016 PSA, EEPGL have indicated that adjustments to this amount is possible for items erroneously included in the Cost Bank.

5. Audit Approach & Methodology

The following section summaries the multi faced approach and methodologies taken to examine the costs being recovered by EEPGL between 1999 and 2017.

Data Gathering

Any audit relies on acquiring a complete set of information, in this case from EEPGL and the respective GoG agencies. Data gathering for this audit has been particularly complex and challenging as information is spread over 18 years, across multiple systems and GoG agencies. Essential data to complete this assignment required input from multiple stakeholders in Guyana, namely:

1) Esso Exploration and Production Guyana Limited
2) Guyana Geology and Mines Commission
3) Department of Energy
4) Guyana Revenue Authority

All parties were actively involved in the providing the requested information, although it has taken stakeholders materially longer to respond to requests for information than anticipated.

The data gathering and discovery stage required EEPGL to maintain open and transparent records. As part of the data gathering process, templates were developed to capture key information regarding wells, SURF (Subsea, Umbilical, Risers, Flowlines), support infrastructure, procurement processes, vendor contracts, expenditure records, invoices, field development plans, payroll and time writing records. These templates can be used to establish precedence for future audit requests. A system to ask queries was developed to ensure all requests/ questions and responses were tracked providing a single source for all answers enabling the audit team to take clear actions. During the data gathering stage regular meetings were held with EEPGL in order to discuss data requests and seek clarifications of the answers. In February 2020, all travel to Guyana by IHSM consultants ceased due to COVID-19 travel restrictions. EEPGL also faced severe travel restrictions and future meetings and correspondence were conducted by videoconference and email only.

With the multiple locations of the team conducting the audit, a secure cloud-based file management system was deployed to facilitate collaboration and ensure all audit team members have access to the most current information and analysis.

Criteria for Recoverable Costs

The criteria for cost recovery is defined in Annex C to the PSA. These provisions define principles for cost recovery as follows:

Classification of expenses in accordance with accounting procedures
Sec 2 of Annex C provides for classification, definition, allocation of all costs, expenses and expenditures relating to the Petroleum Operations for the purposes of booking cost recovery expenditures.

Booking of the costs to cost recovery

- As per Section 2.1 of Annex C to the PSA Exploration Costs are all direct and allocated indirect expenditures incurred in the search for Petroleum in an area which is or was, **<u>at the time when such costs were incurred</u>**, in the Contract Area, including surveys and studies, exploration wells, facilities relating to the Contract Area.

- As per Section 2.2 of Annex C to the PSA Development Costs are all direct and allocated indirect expenditures incurred including drilling and completion of wells and the engineering and design and the cost of installed field facilities. Cost recovery is allowed in accordance with the accounting principle - to book such costs in the period or the year in which such costs are incurred.

- As per Section 2.3 deals with treatment and booking of operating costs

- As per Section 2.4 for Service costs including direct and indirect expenditures in support of the Petroleum Operations including marine vessels, logistics, workshops etc.

- As per Section 2.5 which details allowable G&A costs for in country operations and the annual overhead charge for services rendered outside of Guyana.

In summary, the criteria for cost recovery are as follows:

(i) Section 3.1 provides a list of costs that are recoverable without the approval of the Minister, provided that the costs are competitively priced, are at arm's length, and in line with prices generally charged by other international or domestic suppliers for comparable work and services.

(ii) Section 3.2 provides costs that are recoverable only with approval of the Minister including commissions, donations and R&D expenditure. - *(DOE and GGMC have confirmed that no such costs that fall under this definition were previously approved by the Minister).*

(iii) Section 3.3 defines the costs not recoverable under the PSA including fines, penalties, costs beyond export point, and costs incurred arising out of gross negligence of contractor of sub-contractor

(iv) Section 3.4 other residual costs not dealt with specifically are recoverable subject to Minister's approval. This could include instances of single source procurement. - *(DOE and GGMC confirmed that no costs that fall under this definition where previously approved by the Minister.)*

Cost Estimation and Benchmarking

Cost estimation and benchmarking is being considered in two phases:

- Phase 1 – Exploration & Development wells
- Phase 2 – Field Development Plan

QUE$TOR™ and IHSM Petrodata services have been used in this audit to provide a benchmark against which EEPGL's expenditure of drilling/ completions operations, SURF (Subsea, Umbilicals, Risers, Flowlines) facilities and seismic activities were compared. These models provided a reference to determine whether EEPGL's approach to drilling operations and field development fall within industry norms and seek justifications for cost over-runs which fall outside of general project contingencies. The audit team also leveraged these models to compare vendor level expenditure recorded within EEPGL's General Ledgers to gauge appositeness where the relevant granularity is available.

<u>Phase 1: Exploration & Development Wells</u>

There were 10 Exploration wells drilled in the period 2015 to 2017. The audit team has modeled each of these exploration wells in QUE$TOR™ using the cost and technical databases corresponding with the period that each well was drilled. The modelling has been completed on two bases to provide a gauge of the well reported cost against market expectations.

Technical well data was extracted from the Final Well Reports (FWR) for each well, ensuring the basis for each well estimate reflects the original approved AFE well design and any variations which may have occurred during the drilling period. FWRs provide a detailed account of a well's drilling history from design and planning to cost progression, operational events/ daily drilling logs and lessons learned.

Key parameters which drive well cost were extracted from the FRWs:

- Rig Type
- Water Depth
- Measured total Depth
- Total Vertical Depth
- Drilling Duration
- Casing Type and Diameter
- Completion Details

For all wells the audit team as reviewed FRWs including:

- Safety and Environmental Incident Summary
- Problems and NPT Summary
- Management Summary

To establish the appropriateness of the reported well costs two QUE$TOR models were prepared for each well; with each model based on the data from the Final Well Reports.

The first model for each well was based on the actual rig rate quoted in the Final Well Report and included the following adjustments:

- The actual rig day rate was used and was assumed to incorporate the full daily operating cost
- Measured depths were adjusted to approximate the actual well
- Drill days were adjusted to the reflect the reported durations for activities
- Identified cost items such as "Fast Drilling Process" and "Completion" that were adopted at additional costs were included as separate items in the models
- Pre-execution costs were included as line items
- Post execution costs were identified for Liza-1 only and thus were included in model as additional "Logging"

- Contingency set to 0% to reflect the “as-built” nature of the EEPGL models

The second model for each well was based on the rig rate (including drill and marine crews) within the QUE$TOR database for that period quoted. These models include “Q$ Default” in the model case names and were adjusted as follows:

- Measured depths were adjusted to approximate the actual well
- Drill days were adjusted to the reflect the reported durations for activities
- Identified cost items such as “Fast Drilling Process” and “Completion” that were adopted at additional costs were included as separate items in the models
- Pre-execution costs were based on QUE$TOR calculation
- Post execution costs were identified for Liza-1 only and thus were included in model as additional “Logging”

Phase 2: Development Plan

A QUE$TOR model of the full field development has been prepared in accordance with the details provided in the Report entitled “Liza Project, Development Plan; document number GYLZ-ED-BPRDE-00-0001, Revision 0, December 2016”. The model was prepared to provide an estimate of the Liza Phase 1 Development to act as a basis for evaluating the validity against industry expectations of the recorded expenditures associated with the Development.

The model includes all development wells and SURF as detailed in the report and set out to reflect the field spatial geometry, interconnections between well clusters and the FPSO as well as technical specifics such as capacities, flowline dimensions and materials selection where these were defined within the Development Plan.

The development plan includes for 17 subsea wells (8 producers, six water injectors and three gas injectors) tied back to a spread moored Floating Production, Storage and Offloading (FPSO) vessel that will offload directly to conventional tankers in tandem mooring configuration. The FPSO is provided on a lease basis and hence the costs estimated within the QUE$TOR model are “ghosted” to not appear in the overall estimate for the development.

The subsea production and gas/water injection wells are in two subsea drilling centers (DC-1 and DC-2) and tied back directly to the FPSO via flowlines and lazy-wave steel risers. One umbilical provides power, control and subsea chemicals to the drill centers.

DC1 consists of two clusters, namely: DC1-P with five production wells and DC1-I with two water injectors and three gas injectors. Similarly, DC2 consists of two clusters, namely: DC2-P with three producers and DC2-I with four water injectors.

Rig Benchmarking

IHSM Petrodata service tracks the global rig and vessel market. The audit teams review Stena Carron and Deep-Water Champion establishes a baseline for pulling market data for equivalent rigs during the drilling period(s). Market data for equivalent rigs provide a benchmark of EEPGL’s rig procurement vs prevailing market conditions.

General Ledger Review

In accordance with the data gathering request, EEPGL provided data extracts of their General Ledger. These ledgers provide transactional level details for majority of the exploration and development costs being recovered. As such a review of the health, transparency and accuracy of these ledgers is paramount to understand which costs are being claimed for recovery and how they have been classified. All costs which may be allowable for cost recovery according to the PSA should be captured and recorded in the General Ledger provided with the exception of the Annual Overhead Charge as per Section 3.1 (j) and defined in Section 2.5 (b) of the 2016 PSA.

Reconciliations

The first stage of the audit prepared a reconciliation of the General Ledgers provided against the balances in the cost recovery statements and other supporting documents. Where any discrepancies arose during this analysis, justifications were sought from EEPGL. If adequate justification is not provided for totals which are higher in cost recovery statements compared to those incurred costs in the general ledger, such amounts will be flagged for further investigation and will be considered non-recoverable until satisfactory evidence is furnished.

Cost Classification

The accounting / finance systems deployed by EEPGL have evolved over the years as the complexity of the operations has grown. Between 1999 and 2016 EEPGL utilized a standalone version of P2 Energy Solution's IDEAS Oil and Gas accounting software – this is a common tool used for new exploration areas, offering rapid deployment. As of 2017 EEPGL, migrated over to the ExxonMobil worldwide corporate which runs on IPES an SAP based accounting and financial management platform. This platform is used worldwide for all ExxonMobil operated assets and offers additional sophistication as required for development and production assets.

Therefore, during the period being audited, the costs have been spread across two different systems. EEPGL confirmed that data prior to 2004 is not available in IDEAS as it has been purged in accordance to their internal data retention policies, and data they held manually was requested and limited data received).

During the audit review, 142 active accounts were identified in the IDEAS system and 140 accounts within the IPES system, As of Q4 2017 approximately 90% of the total cost being claimed for recovery are recorded within the 30 largest accounts.

Therefore, in order to validate costs have been kept in accordance with the terms of the 2016 PSA – the audit team focused on:

1) Reviewing the details of individual transactions and mapping each active account within the IDEAS and IPES system to the appropriate provision within the PSA's accounting procedure.
    a. Account changes between 2015, 2016 and 2017 were highlighted

2) If after review of the account description and specific transactions, uncertainty remains regarding the nature of transactions being claimed for recovery and their PSA classification - justifications were sought from EEPGL. Where satisfactory evidence was or cannot be provided to support the recovery of the transactions and accounts in question, such amounts have been flagged are considered non-recoverable until satisfactory evidence is furnished.

Data Completeness, Gaps and Transparency

Throughout the review of the General Ledger the audit team paid close attention to identifying data gaps and completeness issues which effected the transparency of the transaction thus allowing it to be assessed valid for cost recovery. Where for any particular transaction it is not clear why it conforms to the requirements of the PSA and is eligible for cost recovery, further clarification was sought from EEPGL. In some cases, EEPGL has failed to provide suitable clarification and has not provided the audit team adequate justification for the transaction cost being included in the cost recovery. In these cases, such amounts will be considered non-recoverable until satisfactory evidence is furnished.

Vendor & Contract Analysis

The audit team applied an industry standard contract review audit process. This involved identifying all high value contracts, for this audit it was set at all contracts with a value above $3 million, In addition, audits of a random sampling of lower value contracts were also undertaken. A list of the contracts reviewed in shown in Table 5-1.

The detailed audit of the contracts considered and reported on the following information / attributes:

- **PSA provisions** – These provisions provide the basis for executing contracts as discussed in the Criteria for Recoverable Costs section.

- **Scope of work** – Description of scope of work and type of agreement – Global MSA (Enabling Agreement) or Amendment of Local agreement.

- **Pricing and amendments** – Lumpsum or unit rate basis and subsequent amendments.
- **Transaction Analysis** - Review and comment if in /out of scope, exceptional transactions etc. validate with invoice and other supporting(s). Review description for categorization and completeness.
- **Observations**: Notes and remarks on classification, transaction completeness, exceptions, significant transactions, price competitiveness (award recommendations).
- **Recommendations**: Audit recommendations to rectify current observations and comments on what to do better in future where relevant.

In conducting the audit, the team is reviewed each vendor contracts in detail against the following checklist:

1) **Contract scope relates to the Field Development Plan and the Annual WP&B**
   a. If any variances are noticed, the audit team sought justification for these variances or change in plans from EEPGL. Note: the WP&B submitted by EEPGL each year does not include any technical definition of what is included and therefore this could only be done at the very high level of the cost breakdown provided.

2) **Contract cost reconciles with the cost being claimed for recovery**
   a. Determine if the contract pricing / compensation structure is based on lumpsum or unit rates and benchmark against cost models developed for Stabroek.

   b. The General Ledger analyzed to ensure consistency of costs being recorded.

   c. Invoices submitted by the contractor reviewed for authentication, verification of services and materials provided.

      Over 700 invoices were reviewed. The invoices reviewed included all invoices raised against the high value contracts and a selection from the smaller contracts covering a wide range of vendors providing comprehensive coverage of the activities claimed under the cost recovery process.

   d. For any variances between the invoices and the recorded transaction in the General Ledger the audit team sought additional justification for these variances from EEPGL.

   e. In cases where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

3) **Contract costs are classified correctly and booked in a specific account code as defined under the PSA**
   a. For any variances noticed, the audit team sought justification for or correction of these variances from EEPGL.

   b. In cases where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

4) **Contract amendments**
   a. Reviewed all contract amendments to check for justification of contract changes, where contract amendments are not clear or in accordance with industry practice the audit team sought further justification from EEPGL.

   b. In cases where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

5) **The completion of services or material delivery will be verified to ensure that the contractor and the operator have fulfilled their obligations**
   a. For any variances noticed, the audit team sought justification for these variances from EEPGL

b. In cases where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

Table 5-1: List of contracts reviewed during the audit

Vendors	2014	2015	2016	2017	Grand Total
STENA CARRON DRILLING LTD	-	-	74.1	78.5	152.6
SCHLUMBERGER GUYANA INC	-	20.0	49.0	64.0	133.0
CGG SERVICES UK LTD	-	42.4	27.3	-	69.7
TRITON NAUTILUS ASSET LEASING GMBH	-	51.6	0.1	-	51.6
SAIPEM LTD	-	-	-	46.0	46.0
FMC TECHNOLOGIES INC	-	-	-	38.6	38.6
TRANSOCEAN OFFSHORE DEEPWATER DRILLING INC	-	35.4	-	-	35.4
HALLIBURTON GUYANA INC	-	-	7.5	21.7	29.2
SINGLE BUOY MOORINGS UK LTD	-	-	-	26.9	26.9
SOL GUYANA INC	-	4.5	7.5	14.8	26.7
BAROID TRINIDAD SERVICES LTD	-	-	-	26.0	26.0
BAROID TRINIDAD SERVICES LIMITED	-	8.5	14.0	-	22.5
CGG SERVICES US INC	-	-	12.3	4.0	16.3
PGS EXPLORATION UK LTD	-	-	-	15.5	15.5
NAUTICAL VENTURES UK LTD GUYANA	-	-	-	14.6	14.6
NAUTICAL VENTURES UK LTD	-	-	14.2	-	14.2
BRISTOW HELICOPTERS INTERNATIONAL	-	-	-	12.9	12.9
HORNBECK OFFSHORE OPERATORS LLC	-	0.0	5.7	6.3	12.0
BRISTOW HELICOPTERS INTERNATIONAL LTD	-	-	11.6	-	11.6
TECHNIP UMBILICALS INC	-	-	-	11.4	11.4
FUGRO GEOSURVEYS	-	-	-	10.7	10.7
HORNBECK OFFSHORE SERVICES LLC	-	9.2	-	-	9.2
FUGRO GEOSERVICES INC	-	-	8.4	0.0	8.4
GUYANA ENERGY SUPPORT SERVICES INC	-	1.0	1.3	5.8	8.1
OCEANEERING SERVICES OVERSEAS LTD	-	2.1	2.2	3.5	7.8
CORE LABORATORIES LP	-	0.9	1.9	4.1	6.8
OIL STATES INDUSTRIES	-	-	-	6.5	6.5
FRANKS INTERNATIONAL TRINIDAD UNLIMITED	-	1.0	5.5	-	6.4
TIDEWATER MARINE INTERNATIONAL INC	-	5.6	-	-	5.6
AGILITY PROJECT LOGISTICS INC	-	4.1	1.4	-	5.5
NATIONAL HELICOPTER SERVICES LIMITED	-	5.1	-	-	5.1
TIGER TANKS TRINIDAD UNLIMITED	-	2.1	3.0	-	5.1
FRANKS INTERNATIONAL TRINIDAD UNLIM	-	-	-	4.7	4.7
RPS EVANS HAMILTON INC	-	-	-	4.3	4.3
BAKER HUGHES TRINIDAD LIMITED	-	3.4	0.8	-	4.3
CHAGTERMS TRINIDAD LTD	-	-	-	4.1	4.1
CHAGTERMS TRINIDAD LIMITED	-	-	4.0	-	4.0
WEATHERFORD TRINIDAD LTD	-	1.0	1.8	0.8	3.5
FUGRO MARINE GEOSERVICES INC	-	-	-	3.5	3.5
SBM OFFSHORE USA INC	-	0.3	3.0	0.2	3.5
TECHNIP USA INC DBA GENESIS NORTH AMERICA	-	0.1	3.0	-	3.1
RAMPS LOGISTICS LIMITED	-	0.0	2.9	-	2.9

Vendors	2014	2015	2016	2017	Grand Total
QUAIL TOOLS LP	-	2.5	0.1	0.1	2.7
MODEC INTERNATIONAL INC	-	0.3	2.3	0.1	2.7
CORPRO INC	-	-	1.0	1.6	2.6
TIGER TANKS TRINIDAD UNLTD	-	-	-	2.5	2.5
RPS EVANS-HAMILTON INC	-	0.1	2.4	-	2.5
RAMPS LOGISTICS LTD	-	-	-	2.5	2.5
RPS GROUP INC	-	-	-	2.2	2.2
TECHNIP USA INC DBA GENESIS NORTH	-	-	-	2.0	2.0
GUYANA DEEP WATER OPERATIONS INC	-	-	-	2.0	2.0
TANKS A LOT INC	-	-	0.8	1.1	1.9
ENVIRONMENTAL RESOURCES MANAGEMENT	-	-	-	1.8	1.8
GUYANA DEEP WATER OPERATIONS	-	-	-	1.8	1.8
GEOLOG INTERNATIONAL B V	-	-	1.2	0.6	1.7
VETCO GRAY LLC GUYANA BRANCH	-	-	-	1.6	1.6
FIRCROFT GUYANA INC	-	1.0	0.4	0.1	1.5
MOKESH DABY	0.3	0.3	0.3	-	0.9
CYRILS TAXI SERVICE	0.0	0.2	0.4	-	0.7
BAKER HUGHES TRINIDAD LTD	-	-	-	0.6	0.6
CHECK 6 INC	-	-	0.5	-	0.5
2H OFFSHORE INC	-	0.3	-	0.1	0.4
SCHLUMBERGER TECHNOLOGY CORPORATION	-	0.2	0.1	-	0.3
STICHTING MARITIEM RESEARCH INSTITUUT NEDERLAND	-	-	0.3	-	0.3
STAG GEOLOGICAL SERVICES LIMITED	-	-	0.2	-	0.2
BEHARRY AUTOMOTIVE LIMITED	-	-	0.1	-	0.1
GRAND TOTAL	**0**	**203**	**272**	**450**	**926**

Procurement

The procurement team at the local EEGPL office, based in Georgetown, outlined the processes followed for procurement of materials and services which are subject to this audit. The 2016 PSA does not require the approval of the GoG prior to procurement and bid award. A local procurement function was set up by EEPGL in Guyana in 2018, prior to which all procurement activities were handled by EEPGL parent company out of United States. The current process for procurement of services and materials adopted by EEPGL is as follows:

I. **Procurement of Services:** The local procurement function established in 2018 focuses on developing local vendors and contractors. Center for local Business Development an EEPGL department is utilized to evaluate qualified bidders. A competitive bidding process then follows where bids are evaluated technically, commercially and operationally recorded in an award recommendation document. The audit team has reviewed award recommendations and procurement controls for each of the contracts reviewed.

   In some cases, ExxonMobil have a global Master Services Agreements (MSA) with contractors, and where it is seen beneficial by EEPGL, these have been used with procurement managed out of the US. These agreements are standard in the industry, with agreed Terms and Conditions and pricing agreements. These agreements potentially allow ExxonMobil to receive a pricing discount for the high volumes of equipment, material(s) and service(s) they purchase over all their operations and reduced contract management costs associated with procurement. MSAs may also be termed as “Enabling Agreements” that enable the local procurement to contact an international vendor for the local needs. In some cases, ExxonMobil has MSAs with multiple vendors covering the same or similar equipment, material(s) or service(s) which allows ExxonMobil to select the most appropriate one for an individual purchase.

Within the Stabroek license, the contracts that have been tendered or executed in the US with limited local procurement involvement include the following:

- EPIC contracts for facilities
- Drilling materials
- Drilling services including rig lease
- Seismic services

II. **Procurement of Materials:** Material Planners and Drilling department forecast material requirements, anticipating long lead items. Materials are sourced and purchased into Exploration & New Venture stocks in both in country and out of country warehouses. Material requirements from such inventory is identified and requisitioned for consumption. The stock is intercompany-transferred and charged to well when it leaves the shore base. Unused materials are credited back to the General Ledger when they are returned to the shore base.

III. **Single Source contracts:** There are certain contracts awarded on single source basis. These are justified by benchmarking or discussions with category experts. Though single source contracts don't go through a competitive bidding process the same QC process is applied regarding technical, commercial, operational and financial qualifications.

Cost Recoverability for procurement: The PSA contains specific provisions regarding the procurement process and valuation of Services and Materials. These conditions are necessary to be met to satisfy the criteria for cost recoverability.

- Sec 3.1(d)(i): Services - The actual costs of contracts for technical and other services entered into by the Contractor for the Petroleum Operations, made with third parties other than Affiliated Companies of the Contractor are recoverable; provided that the prices paid by the Contractor are competitive with those generally charged by other international or domestic suppliers for comparable work and services.

- Sec 3.1(d)(ii): Services – In the case of services rendered to the Petroleum Operations by an Affiliated Company, the charges will be based on actual costs without profits (AFFLIATED COMPANY SUPPLIES, at zero profit, fair and reasonable, as per prevailing O&G practices and conditions). The charges will be no higher than the usual prices charged by the Affiliated Company to third parties for comparable services under similar terms and conditions elsewhere and will be fair and reasonable in the light of prevailing international oil industry practice and conditions.

- Sec 3.1(e)(i): Materials - Only such material or equipment shall be purchased or furnished by the Contractor for use in the Petroleum Operations as may be required for use in the reasonably foreseeable future and the accumulation of surplus stocks shall be minimized.

- Sec 3.1(e)(iii)(a),(b): Materials - Cost of the material purchased by the Contractor from third parties or its Affiliates, for use in the Petroleum Operations shall be valued and not exceed those prevailing in normal "arm's length" transactions on the open market for material of similar quality and supplied on similar terms at the time of procurement.

- Sec 3.4: Others – Other costs or expenses not dealt with Section 3 are recoverable subject to approval of the Minister.

The audit team has reviewed both the procurement process and the resultant activities in detail. For each of the high value and random sample of contracts selected for detailed audit, they have been reviewed to ensure that they fulfill the conditions and criteria for cost recovery including:

- The prices paid to third party contractors for services are competitive with those generally charged by other international or domestic suppliers for comparable work and services.

- The prices paid to affiliated companies for services are competitive comparable services under similar terms and conditions elsewhere and will be fair and reasonable in the light of prevailing international oil industry practice and conditions.

- Only materials purchased for use in the Stabroek Area are cost recoverable. Write-off of unused materials or shortages are not cost recoverable.

- The prices paid to third party contractors for materials are valued appropriately i.e. competitive pricing on arm's length basis. All used materials from affiliated companies should be valued according to the provisions of the PSA.

- All single source contracts that do not go through the competitive tendering process are cost recoverable subject to approval of the Minister.

Audit Review Process for Procurement involves review of documentation to determine the competitive valuation of services and materials procured. For selected contracts the audit team reviewed the following documents:

- Procurement Strategy
- Technical and Commercial Evaluation Plan (Including Scoring Methodology)
- Award Recommendation
- Minister approval for single source contracts

Table 5-2: List of single source contracts

#	VENDOR	VENDOR SCOPE	VENDOR SOURCE
1	2H OFFSHORE INC	Riser Design	Spot Order
2	BAKER HUGHES TRINIDAD LIMITED	Guyana - Conventional Coring - Baker	Subagreement
3	BAKER HUGHES TRINIDAD LIMITED	Gyana - Mud Logging Services	Subagreement
4	BAKER HUGHES TRINIDAD LIMITED	Guyana - Baker Hughes - Liner Hangers	Subagreement
5	BEHARRY AUTOMOTIVE LIMITED	Vehicles	Spot Order
6	CGG Services	Guyana 3D Seismic Acquisition	Order off Master Agreement
7	CGG Services	CGG Guyana 3D Seismic Processing order	Order off Master Agreement
8	CGG Services US Inc.	Guyana 3D Processing - Stabroek Other Area	Order off Master Agreement
9	CGG Services US Inc.	Guyana 3D Processing - Liza Production Area	Order off Master Agreement
10	CGG Services US Inc.	CGG Liza 3D Reprocessing Order	Order off Master Agreement
11	CGG Services US Inc.	CGG Guyana Canje 3D Seismic Processing	Order off Master Agreement
12	CORE LABORATORIES LP	PVT Analysis and Water Chemistry Services	Subagreement
13	CYRILS TAXI SERVICE	Transpotation services	Stand Alone Agreement
14	ENVIRONMENTAL RESOURCES MANAGEMENT	Environmental, Socioeconomic and Health Impact Assessment in Guyana	Master Agreement A2336697
15	ENVIRONMENTAL RESOURCES MANAGEMENT	Geophysical and Geotechnical EBS Survey	Master Agreement A2336697
16	ENVIRONMENTAL RESOURCES MANAGEMENT	Metocean Survey	Master Agreement A2336697
17	ENVIRONMENTAL RESOURCES MANAGEMENT	Development of two waste management capacity building workshops	Master Agreement A2336697
18	FMC TECHNOLOGIES INC	Purchase and Sale Agreement	Stand Alone Agreement
19	GUYANA DEEP WATER OPERATIONS INC UK Ltd (SBM)	Orders associated with SBM FPSO operations & maintenance	Stand Alone Agreement
20	MOKESH DABY		Lease
21	OCEANEERING SERVICES OVERSEAS LTD	Liza 1 Oceaneering Agreement (2014)	Subagreement
22	OIL STATES INDUSTRIES	Liza Project - Jumper Connectors	SPA with enabling provisions
23	QUAIL TOOLS LP	Drilling equipment rental	Spot POs
24	RPS EVANS HAMILTON INC	Oceanography & Meteorological Consulting	Subagreement
25	RPS GROUP INC	Oceanography & Meteorological Consulting	Subagreement
26	SOL GUYANA INC	Supply of fuel	Stand Alone Agreement
27	TRANSOCEAN OFFSHORE DEEPWATER DRILLING INC	Drilling Rig	Stand Alone Agreement
28	TRITON NAUTILUS ASSET LEASING GMBH	Drilling Rig	Stand Alone Agreement

Time Writing

EEPGL is subsidiary of Exxon Mobil which has centers of expertise around the world. Therefore, time writing for the purpose of this audit refers to time spent by employees of any affiliated ExxonMobil company directly in the support of Petroleum Operations within the Stabroek Area. Time writing accounts for a significant proportion of the total expenditure and

therefore, the audit team reviewed these expenses in detail to ensure:

1) **Time recorded in time sheets reconciles with the cost being claimed for recovery.**

- For any variances are noticed audit team sought justification for these variances from EEPGL.
- In cases where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

2) **No profit element has been included in the rates beings used to charge time writing.** It is common that out-country organization, manning levels and schedule of rates are agreed in advance between the host country and operator. The audit team has noted that the 2016 PSA does not require such agreement. Further, GoG has confirmed that no schedule(s) were agreed to and it was agreed with EEPGL that time writing would be charged back at affiliate level cost.

   The audit team has reviewed the audited certificates for Affiliated Companies that EEPGL has furnished. These certificates to validate that no profit element was included in the charge back rate for time writing.

3) **Employees regardless of their location are constrained by the number of hours which can be worked each month / year either physical or via regulation.** Therefore, for each affiliated company the audit team established the maximum number of allowable working hours in a month and year. This was then cross checked against the timesheets of each employee to ensure individuals time writing are within the acceptable limits.
   - If individuals are reporting more hours, then the established limits the audit team sought justification from EEPGL.
   - In cases where insufficient justifications were provided and the variances remained unexplained, the excess manhours are flagged as non-recoverable.

4) **Presentation of total time writing and its components by major exploration and development activities**. This analysis supports GoG in establishing the future reference for the quantity of time and skills required to complete exploration and development activities.

Intercompany Charges

EEPGL may rely upon its affiliates for services and materials as required and has a key agreement in place with Esso Exploration Company (EEC), Delaware effective Dec 2, 1999. This agreement is for wide range of services including Accounting, Accounts payable, Tax, HR, HSE, procurement and contract management, consultancy and technical services, engineering support for drilling activities, field operations, facilities and infrastructure projects, gas related activities and support.

EEC in turn has service agreement with many affiliates including:

(i) ExxonMobil Exploration Company (effective Dec 2, 1999)
(ii) ExxonMobil Production Company (effective Dec 2, 1999)
(iii) ExxonMobil Gas Marketing Company (effective Dec 2, 1999)
(iv) Exxon Upstream Development Company (effective June 8, 1998)
(v) ExxonMobil Production Research Company (effective Jan 1, 1981)

The provisions of the PSA lay down the principles for affiliates to charge EEGPL for services and materials.

- Sec 3.1(d)(ii): Services – In the case of services rendered to the Petroleum Operations by an Affiliated Company, the charges will be based on **actual costs without profits**. The charges will be no higher than the usual prices charged by the Affiliated Company to third parties for comparable services under similar terms and conditions elsewhere and will be fair and reasonable in the light of prevailing international oil industry practice and conditions.

- Sec 3.1(e): Material purchased from Affiliated Companies of the Parties comprising Contractor shall be charged at the prices specified:
  - New Material (Condition "A"): Shall be valued and invoiced at a price, which should not exceed the price prevailing in normal "arm's length" transactions on the open market at the time of procurement. (As yet only new materials have been observed to have been used)
  - Used Material (Conditions "B" and "C"): Shall be valued at 75% or 50% of the price of a new material.

Therefore, the audit team has reviewed the procurement activity and processes involving ExxonMobil and its affiliates in detail to ensure that they fulfill the conditions and criteria for cost recovery in all areas, including:

- Time writing
- Supply of services including accounting, technical, HSE, operations
- Supply of materials from the global warehouse

Venture Office & Payroll

The EEGPL's venture office costs in Georgetown are cost recoverable in accordance with the cost recovery principles stated in the PSA.

Section 2.5(a) of Annexure C of the PSA states that General and Administrative Costs are all general and administrative costs in respect of the **local office or offices** including but not limited to supervisory, accounting and employee relations services, but which are not otherwise recovered. These costs include G&A (indirect costs in country), Human Resources, Finance & Accounting, Legal, Supervisory, Facilities and Office related Logistics.

The audit team has reviewed the venture office costs to ensure:

1) **The venture office cost reconciles with the cost being recovered**
    - The consistency of costs being recorded in the General Ledger.
    - Review of invoices recorded for authentication, verification of services and materials provided.
    - Justification for any variances from EEPGL.
    - In cases where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

2) **The venture office costs are classified correctly and booked in a specific account code as defined under the PSA**
    - The nature of the costs including classification,
    - Justification for any variances from EEPGL.
    - In cases where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

In-country Payroll is recoverable in accordance with Section 3.1 (b) of Annex C of the PSA "Labor and Associated Labor Costs". The provision allows for the recovery of Gross salaries including bonuses, insurance, time-off, personal income tax and reasonable travel and personal expenses.

The audit team reviewed payroll records to ensure that they reconcile with the amounts being recovered in the cost bank. Justification for any variances were sought from EEPGL. Where insufficient justifications were provided and the variances remained unexplained, these transactions are flagged as non-recoverable.

Annual Work Plan & Budget Review

IHSM reviewed the budget submission by EEGPL as required under the provisions of the PSA. Budgeting exercises generally involve the preparation of a detailed budget, timely submission, discussion regarding the work plan, performance monitoring, variance analysis and justification for cost overruns. This is an important tool for monitoring the activities of the operator in the Contract Area during Exploration and Development phases.

According to Art 6.2 of the PSA, the Minister shall maintain the authority and responsibility for the following functions:

> (a) reviewing any proposed Exploration work program and budgets presented by Contractor under Article 7 and any Appraisal Program presented by the Contractor under Article 8 (it is noted that there is limited reference to Work Plan and Budget in this regard).

(b) reviewing any Development Plan submitted by the Contractor in connection with an application for a Petroleum Production License pursuant to section 34 of the Act.

Since the commencement of the PSA, EEGPL has submitted the Annual WP&B in a summarized form comprising 1 page, without granularity and detailed comments and assumptions – see example below.

Guyana Stabroek Block
2017 WP&B ($K US - Gross)

Budget Category	$K US	Content / Assumptions
Exploration		
Drilling	79,920.0	Exploration drilling; post-drill well sample analyses
Seismic	3,635.0	Processing of 3D seismic data
Other Data Acquisitions	0.0	
Geol. and Geophysical Interpretation	23,890.0	Ongoing geological and geophysical studies; travel
Land - Rentals	1,000.0	October 2017 - October 2018
General and Administrative	0.0	
Venture Office	10,380.0	Office in Georgetown
Training	300.0	October 2017 - October 2018
Discovery Evaluation	0.0	
Corporate Social Responsibility	300.0	October 2017 - October 2018
Exploration Subtotal	119,425.0	
Development		
Liza Field Development	318,200.0	Liza full field evaluation; Liza Phase 1 pre-FID; development drilling wells planning; seismic
Development Subtotal	318,200.0	
Overhead Allocation	21,881.3	Per Petroleum Agreement Accounting Procedure
Total	459,506.3	

International best practice includes submission of a detailed Annual Work Program and Budget with sufficient detail and narratives to enable the host government to contribute meaningfully in the partnership and develop the oil fields in a responsible and conscientious manner. A meaningful WP&B would include details of the proposed activities under each section e.g. for drilling it would be expected to know how many wells are being proposed and for each identify the cost of the rig, the drilling consumables, tree cost, well materials, completion cost, formation evaluation activities, site preparations, coring etc.

With the current WP&B submission, the Minister is unable to review the Annual WP&B as envisaged by Art 6.2 of the PSA. In the absence of a detailed budget, transparency of actual costs is reduced.

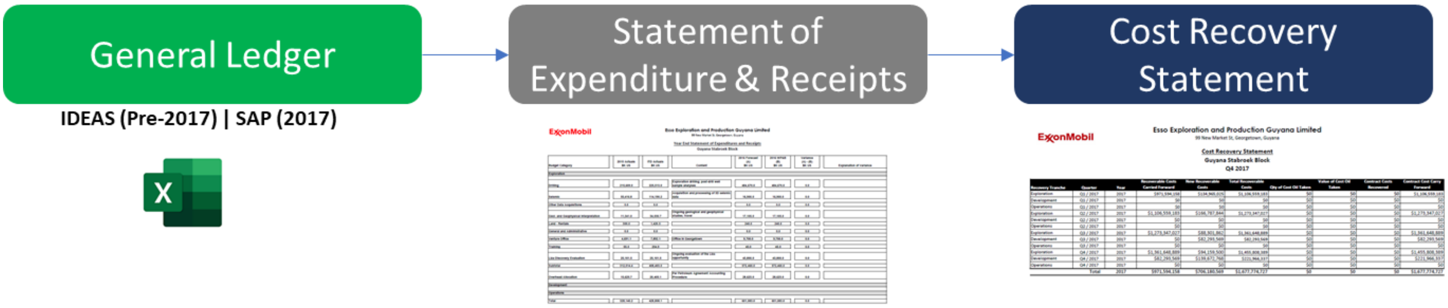
6. General Ledger & Cost Bank

The following section provides a summary of the General Ledger review and reconciliation actives conducted against the Statement of Expenditure & Receipts and the Cost Recovery Statement.

For detailed review see General Ledger & Cost Bank Reconciliation Report.

The General Ledger(s) provided by EEPGL are the foundation off which quarterly Statement of Expenditure and Receipts and Cost Recovery Statements are developed as shown in Figure 6-1 below.

Figure 6-1 Relationship between General Ledger and Cost Recovery Statement



- **General Ledger –** records all EEPGL expenditure at the transactions level
- **Statement of Expenditure and Receipts–** Annual/Quarterly summary of the General Ledger
- **Cost Recovery Statement –** Trialing balance statement from the initial award of the Block, issued on an Annual/Quarterly basis. This is a cumulative summary calculated from the summation of individual Statement of Expenditure and Receipts reports.

The accounting / finance systems deployed by EEPGL have evolved over the years as the complexity of the operations in the Stabroek Block has grown. Between 1999 and 2016 EEPGL utilized a standalone version of P2 Energy Solution's IDEAS Oil and Gas accounting software – this is a common tool used for new exploration areas and offering rapid deployment and acts on a standalone basis. As of 2017 EEPGL, migrated the transaction reporting over to the ExxonMobil worldwide corporate system which runs on an SAP based accounting and financial management platform. This platform is used worldwide for all ExxonMobil operated assets and offers additional sophistication as typically required for development and production assets.

Therefore, during the audit period of this assignment, the costs have been spread across two different accounting systems. EEPGL provided annual extracts in a Microsoft Excel format for each year between 2004 and 2017. The format of these extracts changed significantly between 2016 and 2017 creating additional audit complexity. The combination of these accounting system extracts between 2004 and 2017 is here in referred to as the "General Ledger".

EEPGL confirmed that accounting data prior to 2004 is not available. This was originally captured in IDEAS but it has been purged in accordance with their internal data retention policies. EEPGL however have provided a summary of the costs incurred during this period.

The General Ledger therefore represents all transactions being claimed as recoverable costs within the Stabroek Block under the 1999 and 2016 Petroleum Sharing Agreements (PSAs). The ledger includes all transaction details for exploration, appraisal and development activities within the contract area including information on vendors, contracts and invoices. During the audit period of 1999 – 2017 EEPGL confirmed that there were no shared costs between activities being performed on any other Block in Guyana such as Canje and Kaieteu recorded in the Stabroek General Ledger. The Audit Team review of the General Ledger confirmed that all transactions recorded do relate to Stabroek operations.

The Audit Team has used the General Ledger to reconcile costs reported in the Statement of Expenditure and Receipts and subsequently the Cost Recovery Statement and to further interrogate EEPGL's expenditure at a transactional level.

Reconciliation between Cost Recovery Statement Vs. Statement of Expenditure and Receipts

The Q4 2017 Cost Recovery Statement for all project expenses claimed for cost recovery up to the end of 2017 has a balance of $1,677,774,727 as shown in Figure 6-2 below:

Figure 6-2 Q4 2017 Cost Recovery Statement

ExxonMobil

Esso Exploration and Production Guyana Limited
99 New Market St, Georgetown, Guyana

Cost Recovery Statement
Guyana Stabroek Block
Q4 2017

Recovery Tranche	Quarter	Year	Recoverable Costs Carried Forward	New Recoverable Costs	Total Recoverable Costs	Qty of Cost Oil Taken	Value of Cost Oil Taken	Contract Costs Recovered	Contract Cost Carry Forward
Exploration	Q1 / 2017	2017	$971,594,158	$134,965,025	$1,106,559,183	$0	$0	$0	$1,106,559,183
Development	Q1 / 2017	2017	$0	$0	$0	$0	$0	$0	$0
Operations	Q1 / 2017	2017	$0	$0	$0	$0	$0	$0	$0
Exploration	Q2 / 2017	2017	$1,106,559,183	$166,787,844	$1,273,347,027	$0	$0	$0	$1,273,347,027
Development	Q2 / 2017	2017	$0	$0	$0	$0	$0	$0	$0
Operations	Q2 / 2017	2017	$0	$0	$0	$0	$0	$0	$0
Exploration	Q3 / 2017	2017	$1,273,347,027	$88,301,862	$1,361,648,889	$0	$0	$0	$1,361,648,889
Development	Q3 / 2017	2017	$0	$82,293,569	$82,293,569	$0	$0	$0	$82,293,569
Operations	Q3 / 2017	2017	$0	$0	$0	$0	$0	$0	$0
Exploration	Q4 / 2017	2017	$1,361,648,889	$94,159,500	$1,455,808,389	$0	$0	$0	$1,455,808,389
Development	Q4 / 2017	2017	$82,293,569	$139,672,768	$221,966,337	$0	$0	$0	$221,966,337
Operations	Q4 / 2017	2017	$0	$0	$0	$0	$0	$0	$0
	Total	2017	$971,594,158	$706,180,569	$1,677,774,727	$0	$0	$0	$1,677,774,727

The Cost Recovery Statement provides a cumulative total and balance of the costs as detailed on the individual Statement of Expenditure and Receipts reports issued quarterly The summation of the annual totals shown on the Statement of Expenditure and Receipts submitted by EEPGL between 1999 – 2017 results in a balance of $1,646,344,910 which is $31.43 million lower than the values on the Q4 2017 Cost Recovery Statement as shown in Table 6-1 below.

Table 6-1 Difference between Cost Recovery Statements and Q4 2017 Statement of Expenditure and Receipts

Reconciliation Cost Recovery Statement Vs. Statement of Expenditure and Receipts	
Total Q4 2017 Cost Recovery Statement	1,677,774,727
Total of Annual Actuals per Statement of Expenditure and Reciept	1,646,344,910
Total Variance	**31,429,817**

Upon further review of the Statement of Expenditure and Receipts, the Audit Team noted the additional $31.43 million was added to the IDT column in the Q4 2017 Statement of Statement of Expenditure and Receipts.

The Audit Team queried EEPGL regarding the addition of this cost. EEPGL responded stating that this lump sum was Co-Venture Costs incurred by Hess and CNOOC and forms a portion of the Pre-Contract costs of $460,237,918 included as a lump sum in the 2016 PSA, Annex C - Section 3.1 (k).

Co -Venture Cost a discussed in detail in a subsequent section of this report.

Reconciliation General Ledger with Statement of Expenditure and Receipts

Annual totals of the General Ledger have been reconciled against the Subtotal line within The Statement of Expenditure and Receipts provided, prior to the addition of Overheads.

A breakdown of the expenditure as recorded by the General Ledger Between 2004 – 2017 is shown in Tables 6-5 and 6-3. The majority of the expenditure during the audit period was incurred between 2015 – 2017. Pre 1999 – 2003 EEPGL did not provide details but they have provided a summary table of expenditure as included in the tables below.

Table 6-2 Total expenditure split by time period

Time Period	Audit Comments	Amount ($ '000)
Pre 1999 – 2003	Pre- Contract Costs, IDEAS accounting system. Limited data visibility, EEPGL provided summary table	3,485
2004 – 2015	Pre- Contract Costs, IDEAS accounting system. General Ledger Provided	425,323
2016 - 2017	Post- Contract Costs, IDEAS & SAP accounting system. General Ledger Provided	1,217,537
Pre 1999 – 2017	**Total expenditure during the audit period**	**1,646,345**

Table 6-3 Combined Statement of Expenditure and Receipts ($'000)

Budget Category	Pre 1999	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	IDT
Drilling	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	9,904	215,609	349,452	319,752	**894,717**
Seismic and Other Data Acquisitions	-	-	400	100	-	-	-	-	-	123	15,201	899	4,000	1,002	16,798	19,946	304	55,417	30,882	3,324	**148,397**
Other Data Acquisitions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	302	-	**302**
Geol. and Geophysical Interpretation	300	603	398	1,331	149	52	58	168	88	422	1,029	1,937	2,119	2,400	4,180	4,417	3,038	11,341	21,587	16,233	**71,851**
Land - Rentals	-	-	-	-	-	-	-	-	-	-	38	-	180	180	243	240	240	300	1,240	1,000	**3,661**
Office Operations / General & Administrative	-	-	-	-	-	-	2	29	3	8	43	51	39	36	86	218	2,686	4,691	-	-	**7,892**
Venture Office	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,768	10,364	**16,132**
Training	-	-	-	-	-	-	-	-	-	-	9	-	35	35	40	40	41	55	345	300	**900**
Liza Discovery Evaluation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25,102	77,430	336,907	**439,439**
Subtotal	300	603	798	1,431	149	52	61	197	91	553	16,319	2,886	6,372	3,653	21,348	24,862	16,212	312,514	487,006	687,881	**1,583,289**
Overhead Allocation		30	40	72	7	3	3	10	5	28	816	144	319	183	1,067	1,243	811	15,626	24,350	18,300	**63,055**
Total	**300**	**633**	**838**	**1,502**	**157**	**55**	**64**	**207**	**96**	**581**	**17,135**	**3,031**	**6,691**	**3,836**	**22,415**	**26,105**	**17,023**	**328,140**	**511,356**	**706,181**	**1,646,345**

Table 6-4 and Figure 6-3 below compares the annual total shown on the Statement of Expenditure and Receipts excluding the overheads allocation and compares this to the total of the transactions recorded in the General Ledger. As overheads costs are allocated as a percentage of the total annual expenditure, they are not recorded as transactions in the General Ledger.

Table 6-4 Variance between Statement of Expenditure and General Ledger ($'000)

Budget Category	Pre 1999	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	IDT
Statement of Expenditure & Receipts (Excl. Overheads)	300	603	798	1,431	149	52	61	197	91	553	16,319	2,886	6,372	3,653	21,348	24,862	16,212	312,514	487,006	687,881	1,583,289
General Ledger Annual Total	300	603	798	1,431	149	52	61	197	91	553	16,319	2,886	6,372	3,653	21,348	24,862	16,212	312,514	486,974	688,330	1,583,707
Variance	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**32**	**(450)**	**(418)**

The total amount reported in the Statement of Expenditure reconciles with the General Ledger entries provided for all years up to 2015. However, the following variances were noted in 2016 and 2017:

(1) 2016 – The Statement of Expenditure was $32,170 higher than the details in the General Ledger.

(2) 2017 – The Statement of Expenditure was $449,805 lower than the transactions recorded in the General Ledger.

Figure 6-3 Comparison of statement of expenditure and General Ledger totals

The Audit Team queried EEPGL regarding the variances noted above and the EEPGL response is summarized below:

Variance 1 in 2016 of $32,170: EEPGL, when questioned, stated that this was an error and that it will reverse the charge in 2020.

Variance 2 in 2017 of $449,805: EEPGL, when questioned, stated that the Statement of Expenditure was over reported in 2016 due to an accounting allocation error and therefore EEPGL have included a negative adjustment in 2017.

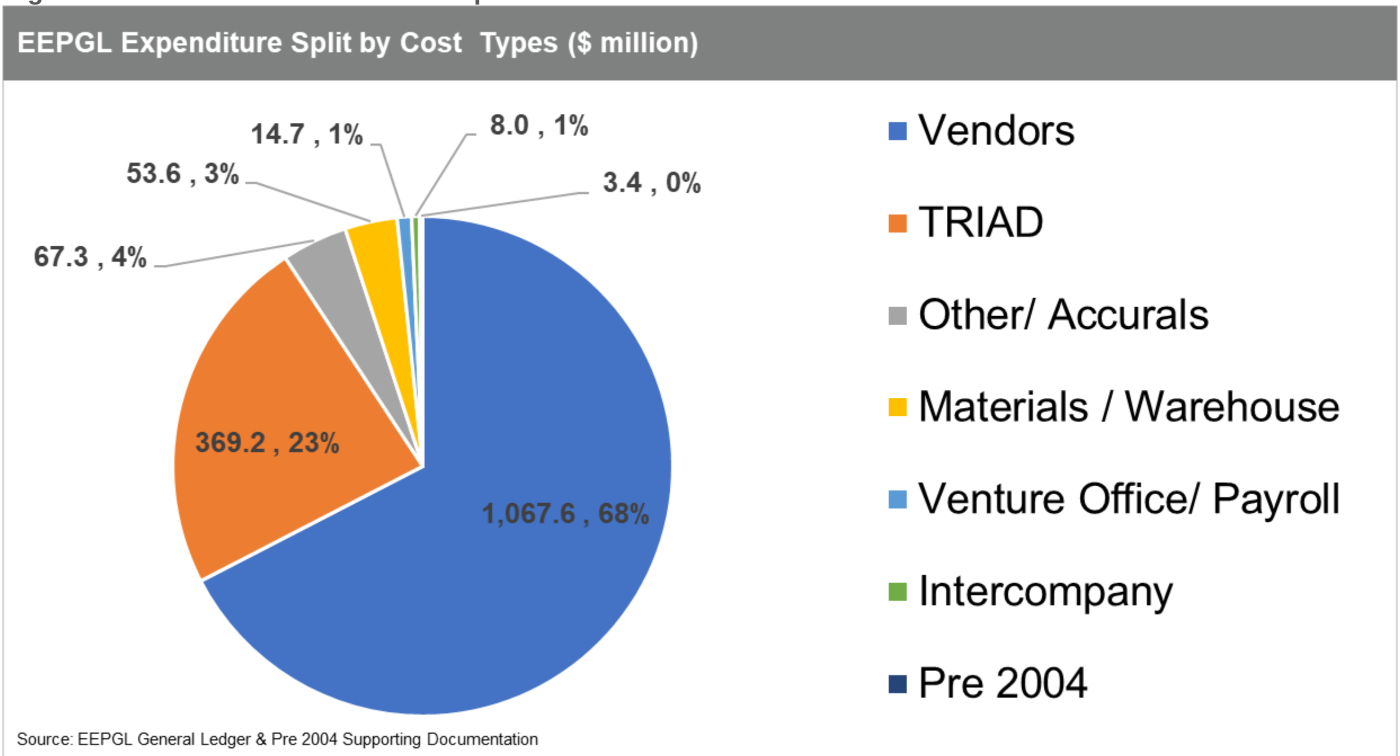
General Ledger Costs

Upstream offshore operations are complex requiring a large volume and broad range of activities to be completed to successfully produce hydrocarbons – which correspondingly results in over 37,000 transactions recorded in the General Ledger covering a broad spectrum of activities. Five distinct expenditure types are identifiable within the General Ledger:

1) **Vendors** – costs to procure goods, materials or services directly used in Petroleum Operations related to the exploration and development of the Block.
2) **TRIAD** – predominately time writing costs of employees from affiliated companies including travel. TRIAD costs also included some intercompany charges and Third-Party Vendor Charges paid for by EEPGL Affiliated Companies
3) **Materials/ Warehouse**– cost related to material transfers and issues from Exxon warehouses to be used Stabroek and associated warehousing costs
4) **Venture Office & Payroll** – Guyana venture office costs as well as local and expat payroll costs. Supported by payroll records and details of venture office expenses.
5) **Intercompany & Other –** Direct intercompany and other charges recorded in the General Ledger, which the Audit Team have queried EEPGL on these charges directly.

The five expenditure types have been reviewed via dedicate workstreams summarized within this report.

Figure 6-4 Breakdown of EEPGL expenditure



7. Force Majeure

EEPGL declared force majeure on September 29th, 2000 due to territorial boundary disputes concerning Guyana's maritime boundaries with Suriname and Venezuela. A period of force majeure prevailed until November 2008.

During this period EEPGL decided that it was not able to physically access the block and as such was not able to acquire further seismic nor conduct onsite drilling operations – this consequently meant that the timeframes for undertaking those objectives, as per the Article 4 – Exploration Program and Expenditure Obligation of the 1999 PSA agreement could not be met.

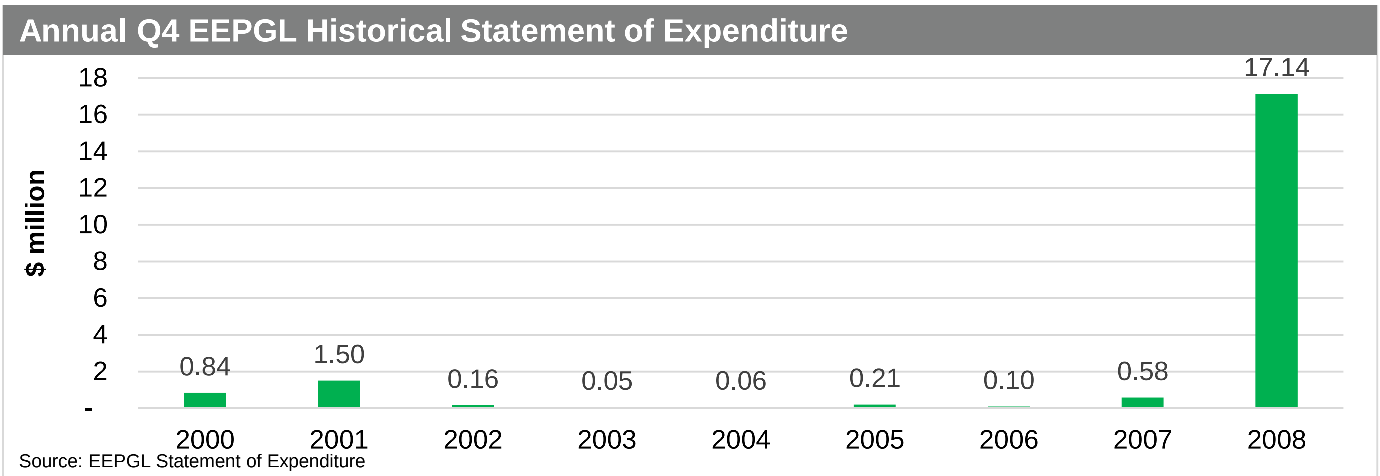
During the Force Majeure period, EEPGL continued to undertake limited work on the project which did not require any presence at the Block location.

In continuing to work on the project, the issues considered by the Audit Team are:

- Stopping work and restarting with a totally new team once the Force Majeure was lifted may have incurred additional costs and inefficiencies as a new team would require time to learn about the block and its subsurface – generating cost inefficiencies and project delays.
- Continuing work, albeit very small amounts of subsurface evaluation may minimize the time required to re start the onsite activities once the Force Majeure was lifted - generating cost efficiencies and project timeliness.

EEPGL incurred a total of $20.6 million between Q1 2000 – Q4 2008 which amounts to approximately 1.23% of the total costs being recovered as of Q4 2017 ($1,677.77 million). The largest single expense during this period ($15.2 million) was incurred in Q4 2008 to prepare for PGS's 7,500 km multiclient seismic survey which commenced immediately after the Force Majeure was lifted. Therefore, deducting this amount from the total means that EEPGL incurred approximately $5.4 million of costs during the eight-year Force Majeure period, which amounts to 0.32% of total costs being recovered up to Q4 2017. The primary costs charged to the project during this period consisted of time writing for geological and geophysical interpretation. During this period, no cost recovery claims have been made for equipment, materials or services in Guyana.

Figure 7-1 Annual expenditure during force majeure period



Source: EEPGL Statement of Expenditure

Without commenting on the validity of the Force Majeure, the Audit Team consider that EEPGL have taken a reasonable approach to manage this period by using a small team to continue remote block evaluation, ensuring project continuity when Force Majeure was lifted. The audit team has not observed any unnecessary standby or mob/demobilizations of vessels or similar. The work which ensued during this period would have had to be completed in any case before onsite block activities such as seismic acquisition and drilling continued. The Audit Team considers the costs incurred during this period were consistent with maintaining limited progress which in country access was not available. The costs incurred during this period are consistent with Petroleum Operations for the Stabroek Block and meet the conditions for cost recovery.

8. Co-Venture Costs

In 2017, EEPGL added approximately $31.43 million to the Inception to Date (IDT) line in the Q4 2017 Statement of Expenditure and Receipts line for seismic expenditure. No additional supporting documentation or explanation was supplied when these costs were added. As a result of this audit, it has been determined that this cost relates to expenditures incurred by HESS and CNOOC between 2013 and 2015 for seismic activity and data purchases as summarized below. GGMC confirmed that Esso farmed-in Hess- 30% and CNOOC-25% in Stabroek Block on January 10th, 2015.

Table 8-1 Co-Venture cost breakdown

HESS Guyana Exploration Limited

Invoice Provided	Date	Vendor	Invoice #	Invoice Amount	Invoice Currency	USD Value in SAP	Pre-Contract Cost Stabroek Block (as per contract)
Yes	26-Dec-13	PGS Americas, Inc.	00000095	997,500.00	USD	$ 997,500.00	$ 748,650.00
Yes	6-Nov-14	PGS Americas, Inc.	00000098	3,015,335.00	USD	$ 3,015,335.00	$ 1,930,780.00
Yes	7-Nov-14	Spectrum ASA	SIN00300	2,930,846.86	USD	$ 2,930,846.86	$ 2,422,200.00
Yes	20-Nov-14	CGG Services (UK) Limited	1411063	9,585,000.00	USD	$ 9,585,000.00	$ 9,585,000.00
Yes	22-Dec-15	CGG Data Services AG	CGG-289/15	477,688.49	GBP	$ 680,419.49	$ 14,414.23
No	Nov & Dec 2015	Guyana Insurance					$ 6,913.84
						$ 17,209,101.35	$ 14,707,958.07

CNOOC

Invoice Provided	Date	Vendor	Invoice #	Invoice Amount	Invoice Currency	USD Value in SAP	Pre-Contract Cost Stabroek Block (as per contract)
Yes	4-Nov-14	CGG	1411006	$ 9,585,000.00	USD		$ 9,585,000.00
Yes	28-Nov-14	Spectrum	SIN00303	$ 2,618,910.48	USD		$ 2,618,910.00
Yes	25-Nov-14	PGS	00000099	$ 1,938,880.00	USD		$ 1,938,880.00
Yes	12-Jan-15	PGS	0000100	$ 286,600.00	USD		$ 286,600.00
Yes	27-Feb-15	Katalyst	IN8024	$ 438.59	CDN		$ 316.00
Yes	27-Feb-15	Katalyst	IN8025	$ 215,508.47	CDN		$ 155,071.00
Yes	20-Aug-15	Trican	A287515	$ 3,369.24	CDN		$ 2,424.37
Yes	30-Jun-15	Data Modeling Inc.	2015_0401	$ 10,500.00	USD		$ 10,000.00
Yes	8-Dec-15	ICMA	ICM2015-13	$ 1,082,919.36	USD		$ 541,459.68
Yes	8-May-15	Iridium	12493	$ 19,055.40	USD		$ 19,055.40
Yes	10-Sep-15	CNOOC International Ltd	OTS-20150018	$ 6,880.00	USD		$ 6,880.00
Yes	4-Aug-15	Iridium	13369	$ 662,954.00	USD		$ 602,788.00
							$ 15,767,384.45

Costs Inccured Post Jan 10, 2015 Asset Transaction

The value of this expenditure has been included in the Pre-Contract Cost lump sum of $460,237,918 detailed in Section 3.1 (k) of the 2016 PSA. However due to the inconsistencies regarding: parties which incurred the cost, when the costs were incurred vs. recorded and lack of clarity around the value addition to Guyana – the following should be considered

- The costs were incurred between 2013 and 2015. The 2016 PSA includes the following definition: "Recoverable Costs" – means such costs as the Contractor is permitted to recover, as from the date they have been incurred, pursuant to the provisions of Annex C. There has been no explanation why EEPGL did not add these costs to the Cost Bank in the respective years in which the costs were incurred, but instead waited up to 4 years after the event.
- Supporting documents have not been provided by EEPGL for $954,465 of the Co-Venture costs added to the IDT line in Q4 2017 Statement of Expenditure and Receipts
- A total of $28,829,420 of the costs were incurred prior to date of January 10th, 2015 when Hess and CNOOC became partners in the block

- Supporting documents have not been furnished for Hess's costs of $6,913.34 related to Guyana Insurance (Nov/Dec 2015)
- A significant portion of these costs relate to the purchase of seismic data from CGG and PGS covering the Stabroek Block. EEPGL already had access to this data. GGMC notified the Audit Team that the seismic acquisitions carried out by CGG and PGS within the Stabroek Area during this period were undertaken as a multi-client study. Exxon contributed to the cost of the acquisition and retained a license to use and analyze the data. CGG and PGS, along with GGMC had rights to license and market the data to other companies

Table 8-2 Breakdown of Co-Venture costs

Cost Incured Prior Jan 10, 2015 Asset Transaction		
Hess	$	14,686,630
CNNOC	$	14,142,790
Total	*$*	*28,829,420*
Costs Incured Post Jan 10, 2015 Asset Transaction		
Hess	$	21,328
CNNOC	$	1,624,594
Total	*$*	*1,645,923*
Total for Documented	**$**	**30,475,343**
Total Charge to Cost Bank	$	31,429,808
Total for Documented	$	30,475,343
Total Undocumented	**$**	**954,465**

Reference:

Exclusive Seismic Survey Acquisition and Processing Agreement between the Government of Guyana and, Guyana Geology and Mines Commission and PGS Exploration (UK Limited) Guyana Multiclient 2D Seismic Program

Exclusive Seismic Survey Acquisition and Processing Confidentiality, Data use and Revenue Sharing Agreement and Letter of Authorization for 2D Seismic Survey by CGG Veritas in the Stabroek Block, Offshore Guyana

Therefore, EEPGL was not the owner of the seismic surveys but was privy to survey data in accordance with agreed confidentiality periods and agreed licensing terms between CGG, PGS and GGMC.

Hess and CNOOC, as other independent entities at the time of purchase would have been required to seek GGMC's approval and enter license agreements with vendors to view survey data. The details of the licensing of this data is demonstrated in the supporting invoices provided for Co-Venture charges from CGG and PSG.

Given the above considerations the following Co-Venture costs are recommended to be removed from the Cost Bank:

- The $6,913 Hess Co-Venture costs where no invoice or evidence of expenditure has been provided.
- The $954,465 portion of the Co-Venture costs, being the difference between the amount shown in the General Ledger and the amount for which no breakdown of expenses has been supplied.
- The $28,829,420 portion of the Co-Venture costs which were incurred by Hess and CNOOC before they were signatories to the Stabroek Block.

The total recommended to be removed from the Cost Bank is the combination of these three values, a total of $29,790,798.

It is the Audit Teams view that the 2016 PSA does not allow costs to be recovered by parties not signatories to the agreement at the time of expenditure as per Annex C Section 3.1 (k) of the 2016 PSA.

9. Statutory Payments

The following section provides a summary of the statutory payments paid by EEPGL to the GoG in relation to the Stabroek Block during the audit period.

For detailed review see Statutory Payments Report.

The Audit team completed a review of statutory payments made by EEPGL from 1999-2017 based on the requirements of the 1999 and 2016 PSAs.

EEPGL is required to pay certain fees for licensing and other charges based on the PSA. The items EEPGL would have to pay in this regard follows:

Table 9-1 Applicable fees as included in 1999 and 2016 PSAs

Type of Fee	Period	Article Governing Fee	Articles Governing Recoverability
Annual License Rental	2016-2017	10	Annex C – Section 2.1 (i), 3.1 (a) and 3.1 (f)
Employment and Training	2016-2017	19	Annex C – Section 2.1 (g) and 3.1 (i)
Signature Bonus	2016	33	Not Recoverable
Environmental and Social Project Fund	2016-2017	28.7	Not Recoverable

- Annual License Rentals are cost recoverable in accordance with Annex C – Section 2.1 (i), 3.1 (a) and 3.1 (f)
  - Post- Contact (2016-2017) cost being recovered: $2,000,000
- Employment and Training payments are cost recoverable in accordance with Annex C – Section 2.1 (g) and 3.1 (i)
  - Post- Contact (2016-2017) cost being recovered: $600,000
- Pre-Contract Costs Annual License Rentals & Employment and Training payments are cost recoverable in accordance with Annex C – Section 3.1 (k)
  - Annual License Rentals: Pre-Contract (2008 - 2016) cost being recovered: $1,800,000
  - Employment and Training payments: Pre-Contract (2008-2016) cost being recovered: $340,000
  - Annual payments have been verified against the governing PSA applicable at the time which the costs were incurred
- Signature Bonus and contributions to Environmental and Social Project Fund(s) are not cost recoverable
- During the claimed Force Majeure period, there is no record of the above statutory payments being made or received; a review of the General Ledger confirmed that during this period that no statutory payments are included in the Statement of Expenditure or the Cost Recovery Statement.
- Statutory payments to the Government of Guyana were late by 29 days in 2011 and 67 days in 2012. The delay in these payments should not affect the recoverability of these payments

The Audit Team as completed a review of statutory payments and all statutory payments included in the General Ledger (and hence the Cost Bank) have been accounted for and received by the appropriate parties.

10. Drilling and Rig Benchmarks

During the audit period there were 10 exploration/appraisal wells spudded and drilled in the Stabroek Area. Drilling related costs recorded against these 10 wells within the General Ledger account for $903 million or 54% of the total Q4 2017 Cost Bank balance of $1,677 million. Additionally, there is $8.3 million of shared well costs recorded in the General Ledger.

The following section presents the results of the technical review and benchmarking exercise completed by the Audit Team using IHSM's QUE$TOR software and cost databases.

The objective of these benchmarks is to provide the GoG with a reference set of costs for analogue wells drilled, considering technical configurations and the prevailing cost conditions in the market at the time the drilling was undertaken. A summary of the well details can be found in the Table 10-1 and a schedule overview in Figure 10-1 below:

Table 10-1 Details of wells drilled

Well	Rig Name	Well Spud Date	Well Completion	WD (m)	MD (m)	TVD(m)
Liza - 1	Transocean Deep Water Champion	5-Mar-2015	20-Jun-2015	1,743	5,433	5,407
Liza - 2	Stena Carron	5-Feb-2016	14-Jul-2016	1,692	5,475	5,300
Skipjack -1	Stena Carron	17-Jul-2016	2-Sep-2016	2,357	6,020	6,019
Liza - 3	Stena Carron	4-Sep-2016	10-Nov-2016	1,830	6,341	5,913
Payara - 1	Stena Carron	12-Nov-2016	20-Feb-2017	2,029	5,512	5,445
Snoek - 1	Stena Carron	22-Feb-2017	30-Mar-2017	1,563	5,175	5,175
Liza - 4	Stena Carron	31-Mar-2017	24-Jun-2017	1,765	5,434	5,434
Payara - 2	Stena Carron	27-Jun-2017	13-Aug-2017	2,135	5,486	5,812
Turbot - 1	Stena Carron	14-Aug-2017	29-Oct-2017	1,802	5,088	5,621
Ranger -1	Stena Carron	5-Nov-2017	27-Jan-2018	2,736	6,450	6,449

Figure 10-1 Overview of Well Drilling Schedule

	January	February	March	April	May	June	July	August	September	October	November	December
2015		Liza-1 (128 days)										
2016		Liza-2 (160.63 days)					Skipjack-1 (49.87 days)		Liza-3 (68.66 days)		Payara-1 (102.13 days)	
2017	Payara-1 (102.13 days)	Snoek-1 (37.7 days)	Liza-4 (86.1 days)			Payara-2 (50.23 days)		Turbot-1 (66.98 days)			Ranger-1 (99.86)	
2018	Ranger-1 (99.86)											

Key Vendor Contracts, Procurement Strategies and Invoices have been reviewed in subsequent sections of this report.

For detailed review see Drilling Summary Report which includes:

- *Global drillship rig rate comparison*
- *Review of technical well details*
- *Review of Final Well Reports (FWRs)*
- *Development of independent cost models using IHSM QUE$TOR™*
- *Calibration of cost models using EEPGL data*
- *Comparison of modeled cost against cost recorded with the General Ledger*

QUE$TOR Benchmarks

The Audit Team has reviewed the drilling and completion performance of each well to confirm all drilling events are expected and follow industry norms. The Audit Team review confirmed that the design and execution of the drilling operations for wells in the Stabroek Block follow standard industry practice. This is further supported by a detailed review of the Problem / NPT Summaries and Management Summaries for each well where no unexpected or unusual reports were recorded.

There were some variations between the final wells and the pre-drill well designs noted during the drilling process, this was predominately due to additional sidetracks that were drilled to confirm the positive results encountered within the initial well path. These variations impacted total measured depth and the duration that the rig was engaged as well as the logging and testing that was performed but, in all cases, added value to the final outcome and added value to the Block.

The total costs for all wells as defined in the General Ledger sum to $910.47 million. This total includes $8.3 million of general well costs which are shared across the wells and not assigned to any of the specific wells. Therefore, the total cost of the individual wells drilled when summed amount to $903 million. This represents 54% of the total cumulative expenditure being recovered as stated in the Q4 2017 Cost Bank balance (total cumulative costs of $1,677 million). The Audit Team reviewed the detailed well reports and other technical information supplied by EEPGL confirm that all expenditure relates to the materials and operations expected according to the well design and drilling operations undertaken in the Stabroek Block during the audit period.

Results from both the calibrated and default models approximated the actual well cost within the AACE accuracy of classes 1-3, i.e. plus minus 3-30%. The Audit Team therefore has the assurance that the costs incurred for the type and duration of wells drilled (and services utilized) given the prevailing surface and subsurface conditions are within industry norms.

Table 10-2 Comparison of Actual Well Costs with Benchmarks

Well	Year	Rig	Rig Rate $'000 per Day	Days	Fast Drill Process In Models ($MM)	Actual Cost $MM	Actual Cost $MM per Day	Q$ EEPGL Cost $MM	Q$ Default Cost $MM	Q$ EEPGL Delta to Actual	Q$ Default Delta to Actual
Liza-1	2015	DWC (1)	707.62	128	Yes (41.23)	216 (3)	1.691	199 (3)(4)	133 (4)	8%	39%
Liza-2	2016	SC (2)	235	160	Yes	159	0.989	168	188	-6%	-18%
Skipjack-1	2016	SC (2)	235	50	Yes	52	1.041	45	56	12%	-8%
Liza-3	2016	SC (2)	235	69	Yes	71	1.030	60	69	15%	2%
Payara-1	2016	SC (2)	235	102	Yes	111	1.086	119	132	-7%	-19%
Snoek-1	2017	SC (2)	200	38	Yes	38	1.021	33	40	15%	-3%
Liza-4	2017	SC (2)	200	50	Yes	88	1.027	64	68	27%	23%
Payara-2	2017	SC (2)	200	86	Yes	45	0.894	45	52	-1%	-15%
Turbot-1	2017	SC (2)	200	67	Yes	57	0.846	54	61	4%	-8%
Ranger-1	2017	SC (2)	200	100	(5)	66(5)	0.657	74	81	-13%	-23%
Total/Average				829		903	1.089	861	880	4.7%	2.5%

Notes:

(1) DWC: Drill Water Champion, day rate at top end of rig rates for that Class during that period
(2) SC: Stena Carron
(3) Includes $35.15 million of Pre-Execution costs
(4) Includes $41.23 million Fast Drill Process
(5) Well cost reported in FWR is $97.5 million compared with audit of accounts; FWR daily cost is $0.971 million more in line with the average

To establish the appropriateness of the reported well costs two QUE$TOR™ models were prepared for each well with each model based on the data from the Final Well Reports.

The first model, (labelled Q$ EEPGL for each well) was based on the actual rig rate quoted in the Final Well Report. These models include "EEPGL" in the model case names and were adjusted as follows:

- The actual rig day rate was used and was assumed to incorporate the full daily operating cost
- Measured depths were adjusted to approximate the actual well
- Drill days were adjusted to the reflect the reported durations for activities
- Identified cost items such as "Fast Drill Process" and "Completion" that were adopted at additional costs were included as separate items in the models
- Pre-execution costs were included as line items
- Post execution costs ($7,081,800) were identified for Liza-1 only and thus were included in model as additional "Logging"
- Contingency set to 0% to reflect the "as-built" nature of the EEPGL models

The second model, (Q$ Default for each well) was based on the rig rate (including drill and marine crews) within the QUE$TOR™ database for that period quoted. These models include "Q$ Default" in the model case names and were adjusted as follows:

- Measured depths were adjusted to approximate the actual well
- Drill days were adjusted to the reflect the reported durations for activities
- Identified cost items such as "Fast Drill Process" and "Completion" that were adopted at additional costs were included as separate items in the models
- Pre-execution costs were based on QUE$TOR™ calculation
- Post execution costs ($7,081,800) were identified for Liza-1 only and thus were included in model as additional "Logging"
- The default contingency rate of 20% was applied to the QUE$TOR™ Default models but excluded from the EEPGL models as these were built to emulate the actual drill results.

The cost comparison models were built using cost and technical databases for the version of QUE$TOR™ that corresponded with the date of drilling, i.e. using the costs and technical assumptions that prevailed at that time. The key parameters extracted from the Final Well Report (FWR) which drive the well cost were:

- Rig Type
- Water Depth
- Measured Total Depth (MD and normally taken from drill rig floor)
- Drilling Duration
- Casing Type and Diameter
- Completion Details

Technical well data and overall reported costs were extracted from the FWR for each well, ensuring the basis for each well estimate reflects the original Approved for Expenditure (AFE) well design and any variations which may have occurred during the drilling period. The Final Well Reports provide a detailed account of the well's drilling history from design and planning to cost progression, operational events/ daily drilling logs and lessons learned. Additionally, data from Contracts and General Ledger was compiled to provide a comparative basis with the actual expenditure.

Comparison of the costs derived from Audit of Accounts and the FWRs show that the only well with a significant difference is Ranger 1. There is limited explanation for this difference; however average daily cost based on the higher FWR figure is more aligned with other wells, suggesting that there may be costs which are not recorded in the General Ledger for the well in 2017, but may have been recorded in 2018. Additionally, this well was the last in the series and may have been burdened with costs associated with the end of program and demobilization.

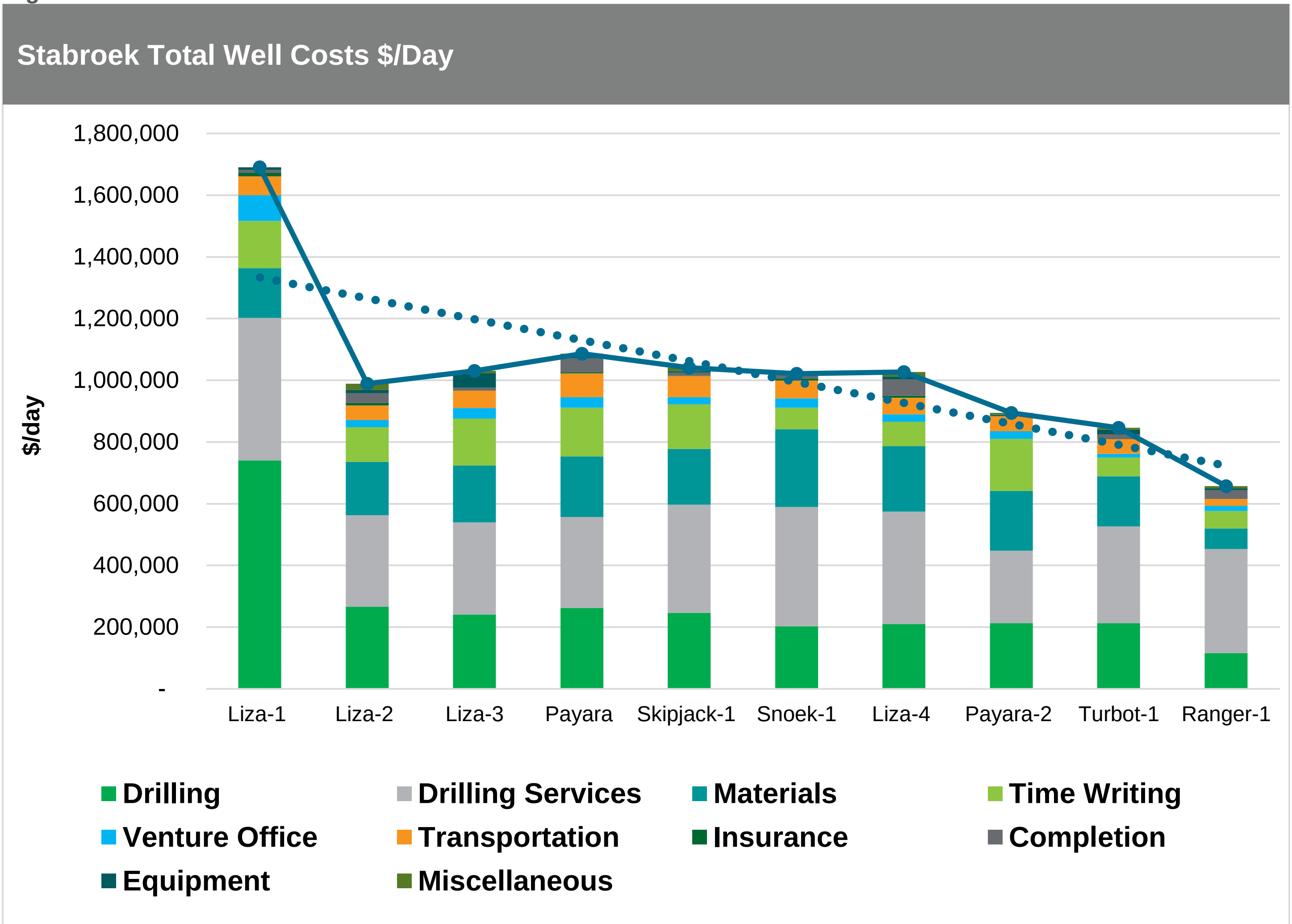
Fast Drill Process

ExxonMobil developed a drill optimization process that used advanced sensors, data collection and Artificial Intelligence to improve the rate of penetration whilst drilling. It has been in use by ExxonMobil since around 2006 and since 2017 has been licensed to be used by other companies. ExxonMobil claim improvements in well drilling speeds of between 40-80%. Although there are additional costs associated with this method, a license fee to use this process has not been charged by ExxonMobil.

Well Cost Trends

The associated drill costs for the exploration wells are in Figure 10-2 and 10-3, these clearly indicate that following the rig change-out of Liza-1 (Deep-Water Champion to Stena Carron) the well costs declined significantly.

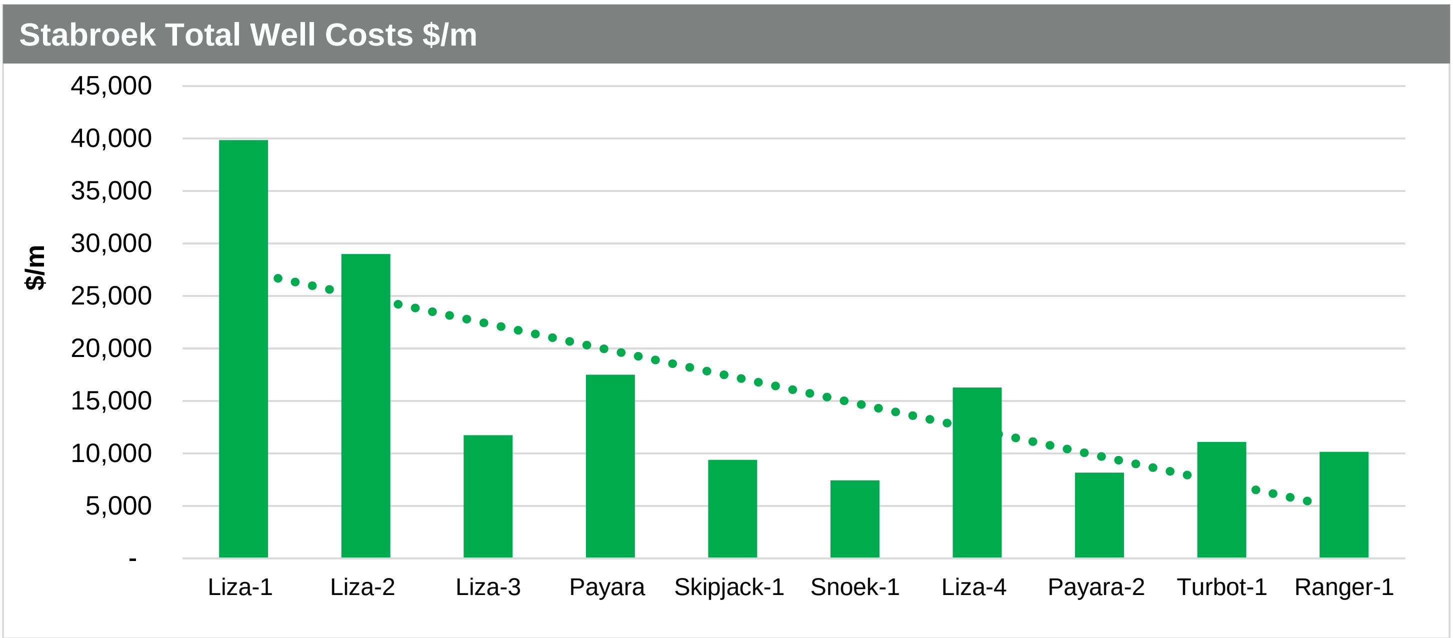
Figure 10-2 Stabroek Total Well Costs



The most notable difference between Liza-1 and Liza-2 is the total expenditure on Drilling. Liza-1 was drilled using the Deep-Water Champion Drillship while all other wells in the audit period were drilled using the Stena Caron Drillship.

Additionally, as frontier areas develop average well costs tend to demonstrate a trend towards cost efficiencies as the supply chains develop and the contractors/operators becomes more familiar with subsurface conditions. Wells drilled in the Stabroek area between 2015 – 2017 demonstrated this trend as illustrated in the chart above; and similarly, the trend is evident when total well costs are viewed on a $/m basis as demonstrated below.

Figure 10-3 Stabroek Well Cost per Meter Benchmarks



Drillship Rate Benchmark

The following box and whisker plots have been developed from IHSM Global Rig Database Service to provide an assessment of the range of market rates earned by drill ships like those used by EEPGL in the Stabroek area. The Audit Team reviewed the actual rig rates that applied for the Liza Field wells drilled with the Deep-Water Champion (Liza-1) and Stena Carron (all other Stabroek wells) vessels viz-a-viz the coincident market rates.

A review of IHSM's maritime data for both Deep-Water Champion (IMO: 9471862) and Stena Carron (IMO: 9364954) confirm rigs were in Guyana waters at the time wells were reportedly being drilled.

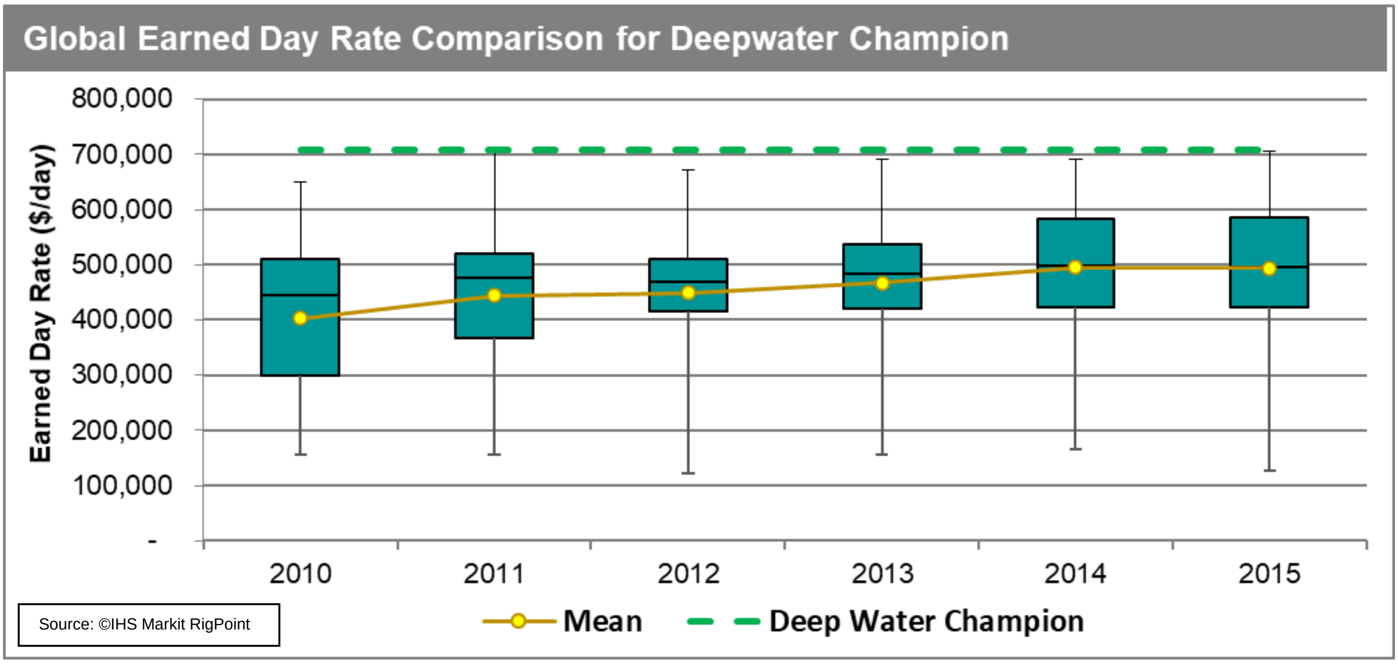
Deep-Water Champion

Liza-1 well was drilled with the Deep-Water Champion, a very high spec drillship. Details of the Deep-Water Champion are shown in Table 10-3 and a comparison with the market dayrates shown in Figure 10-4.

Table 10-3 Deep-Water Champion Specifications

General Rig Information	
Rigtype:	Drillship
Manager:	Transocean
Design:	GustoMSC P10000
Year In Service:	2010
Attrition Date:	
Competitive:	Y
Basis Specifications	
Rig Water Depth (ft):	10000
DP:	Y
Drilling Depth (ft):	40000
Variable Load (tons):	21671
Total Mudpumps:	4
BOP WP Max (psi):	15000
Top Drive Mfr:	National Oilwell Varco TDS-1000A
Future Status:	BOP certified for GOM. Build options: GSF had option but not exercised.

Figure 10-4 Deep-Water Champion Global Earned Day Rate Benchmark Comparison



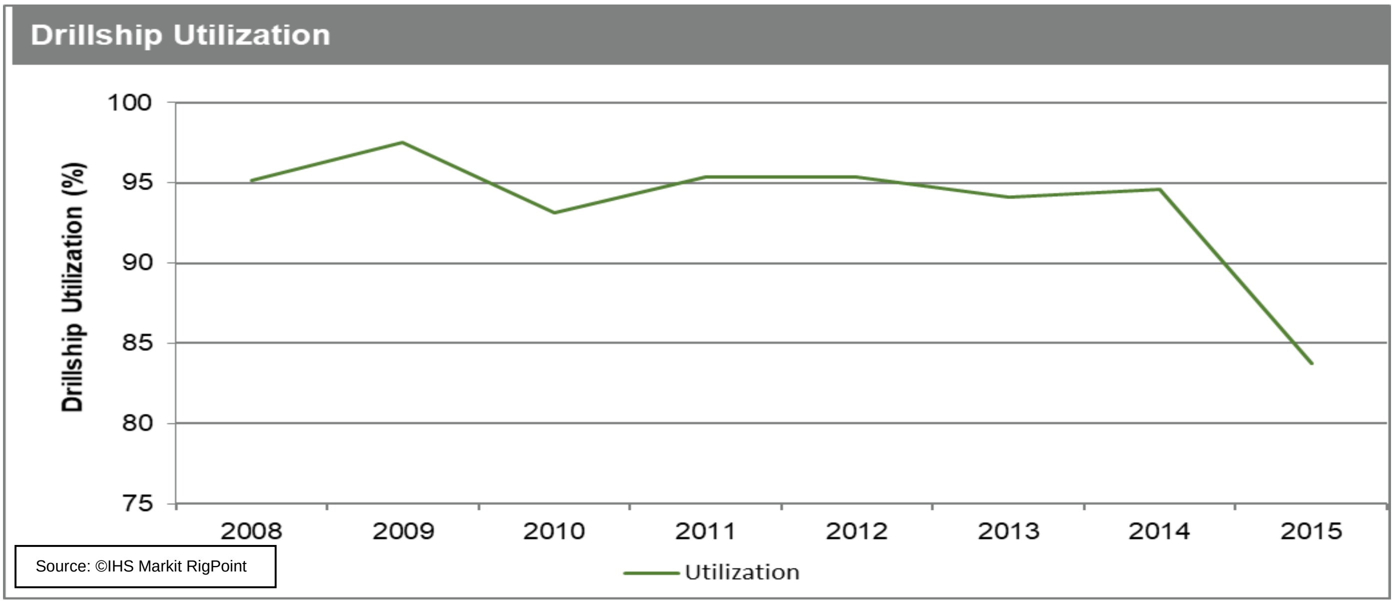
Notes:
1 Maximum water depth capability of 10,000ft
2 Maximum drill depth of 40,000 ft
3 Max Working Pressure of BOP 15,000 psi
4 Benchmark based on survey of rigs potentially capable of operating in the Stabroek Block between 2010 and 2015
5 Next highest rig rate was Ocean Rig Athena at $706,000/day
6 Average utilization of drillships over this period was 92%

Liza – 1 had a total cost of $216 million, approximately 42% or $91 million of this total related to the use of the Deep-Water Champion drillship. The Audit Team's analysis indicates that this rig had been on long term contract by Exxon Mobil in the Gulf of Mexico since 2010. The rig was selected to be used for Liza-1 to expedite drilling operations.

IHSM's RigPoint system has this contract recorded at $708,000/day from March 18 to June 26, 2015 and was one of the highest ever recorded rates for an offshore rig. RigPoint records the contract being signed in 2008 by ExxonMobil and IHSM understand that it incorporated a range of day rates that depended on activity and location. Although this dayrate was made up of two parts, one for the bare rig charter and a second for the operations and crew, RigPoint only records the combined dayrate.

The Liza-1 Final Well Report (FRW) indicates that the Deep-Water Champion was contracted at $707,620/day. As compared to IHSM RigPoint data, the average market dayrate for for similar drillships during 2015 as shown on Figure 10-4 was $494,139/day, the upper market quartile, was $585,000/day and the maximum value was that recorded for the Deep-Water Champion at $708,000/day.

Figure 10-5 Utilization of drill ships between 2008 and 2015



Drillship utilization, as shown in Figure 10-5, was extremely high when during the period that Deepwater Champion was on hire to ExxonMobil. Even so, the day rate paid for the Deep-Water Champion was equal to the maximum value seen in the market and significantly higher than some other rigs which would have been capable of operating in the Stabroek Block.

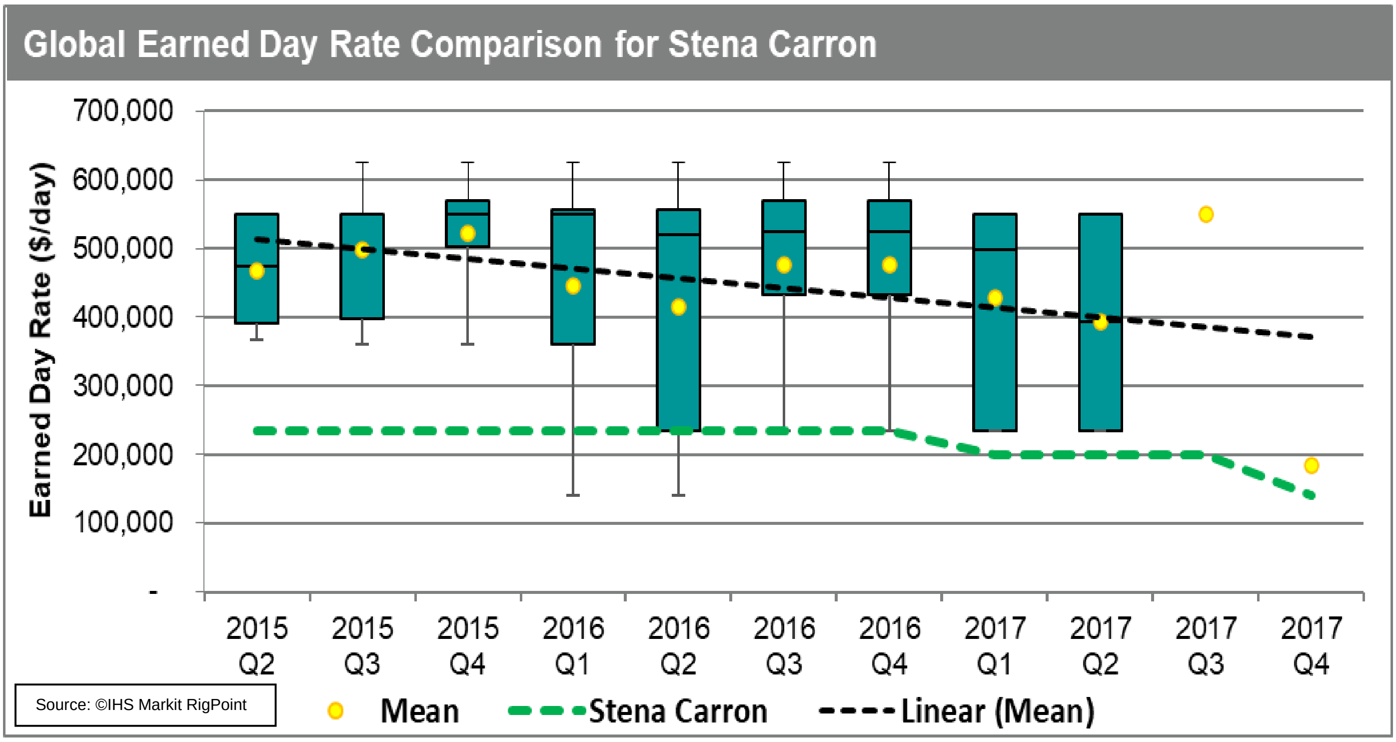
Stena Carron

The Stena Carron was used to drill nine wells including three appraisal wells and six exploration wells. The Stena Carron is slightly lower specification than the Deep-Water Champion but would still be considered a high spec drillship. Details of the Stena Carron are shown in Table 10-4 and a comparison with the market dayrates shown in Figure 10-5.

Table 10-4 Stena Carron Specifications

General Rig Information	
Rigtype:	Drillship
Manager:	Stena
Design:	Stena Stena/Samsung
Year In Service:	2008
Attrition Date:	
Competitive:	Y
Basis Specifications	
Rig Water Depth (ft):	7500
DP:	Y
Drilling Depth (ft):	36000
Variable Load (tons):	22046
Total Mudpumps:	4
BOP WP Max (psi):	15000
Top Drive Mfr:	Hydralift HPS 1000-E
Future Status:	Build options: Option outstanding for one further drillship. Stena requested extension of deadline.

Figure 10-5 Stena Carron Global Earned Day Rate Benchmark Comparison



Notes:
1 Maximum water depth capability of 7,500ft
2 Maximum drill depth of 36,000 ft
3 Max Working Pressure of BOP 15,000 psi

Table 10-4 Operating Dayrates for Stena Carron

	Period 1	Period 2	Period 3
Stena Caron Day Rates	From 8/12/15 $235,000/day	From 20/01/17 $200,000/day	From 22/11/17 $140,000/day

EEPGL consistently contracted the Stena Caron Drillship below the lower quartiles of the market. Amendments to the Stena Caron contract revised contract rates downwards in the direction of the downward trend in the market.

This analysis suggests that the day rate paid by EEPGL for the Stena Carron was consistently below the lower quartile of the market compared with the global market.

11. Subsea | Umbilical | Risers | Flowlines

Subsea, Umbilical's, Risers and Flowlines (SURF) are crucial components of offshore oil and gas operations permitting hydrocarbons to be produced, gathered and connected to the Floating Production Storage and Offloading vessel (FPSO). The following section provides analysis of the expenditure allocation for the Subsea, Umbilical's, Risers and Flowlines (SURF) components of the Liza field development.

Key Vendor Contracts, Procurement Strategies and Invoices have been reviewed in subsequent sections of this report.

For detailed review see SURF Report which includes:

- *Compilation of actual SURF component level contract values for procurement and installation*
- *Development of independent cost model for Liza field development using IHSM QUE$TOR™*

- *Extraction of procurement and installation cost estimate data from the QUE$TOR™ model for direct comparison with the contracts data*

Stabroek SURF Development Plan

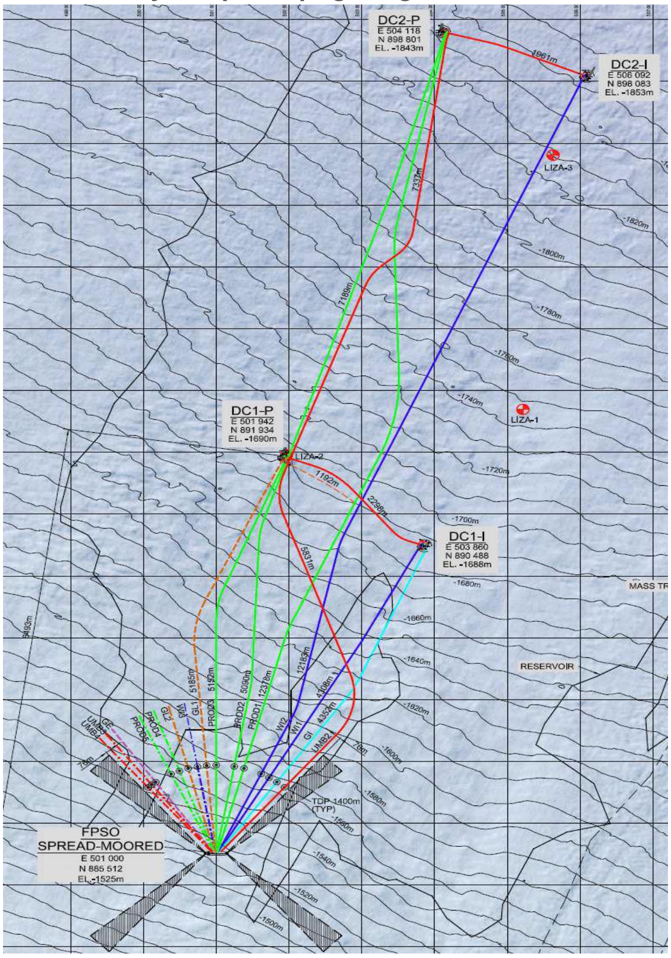
The development plan includes:

- 17 subsea wells (8 producers, six water injectors and three gas injectors) tied back to a spread moored Floating Production.
- Storage and Offloading (FPSO) vessel that will offload directly to conventional tankers in tandem mooring configuration.
- The FPSO is provided on a lease basis and hence the costs estimated within the QUE$TOR™ model are "ghosted" so as to not appear in the overall estimate for the development.
- Similarly, the well costs are not included in this review and have also been "ghosted".

The subsea production and gas/water injection wells are in two subsea drilling centers (DC-1 and DC-2) and tied back directly to the FPSO via flowlines and lazy-wave steel risers. A single umbilical provides power, control and subsea chemicals to each of the drill centers.

DC-1 consists of two clusters, namely: DC1-P with five production wells and DC1-I with two water injectors and three gas injectors. Similarly, DC-2 consists of two clusters, namely: DC2-P with three producers and DC2-I with four water injectors.

Figure 11-1 Liza-Field Layout (from page Figure 6-6 of the Development Plan)



SURF Benchmark

The audit team built a cost model that closely reflected the proposed development scheme outlined in the Development Plan (DP) for Liza detailed in the document entitled "Liza Project, GYLZ-ED-BPRDE-00-0001, Development Plan, Revision 0, December 2016" (Reference 1). The modelled cost estimates were then compared with the recorded sums associated with the **main components of the SURF as defined in the contracts with the SURF goods and services Contractors, namely, Saipem, Technip and Oil States**. This comparison was based on cost estimates extracted from the model and compiled to align with the component costs listed within these contracts.

The results of the analysis are presented in the table below. Overall, the QUE$TOR™ estimate was $37.7 million higher than the contract sums and indicate that the contracts were sourced with procurement attention. It is understood that there were some separate contracts for free issue of equipment that were not available and/or outside the designated audit period which may explain some of the differences.

Table 11-1 Comparison of recorded and benchmark SURF costs

	Procurement	Transportation	Installation-Field	PM & Engineering	Overall Total
	$	$	$	$	$
Total Base + Options Contracts	212,739,237	12,951,770	92,259,618	3,111,577	321,062,202
QUESTOR™ Estimates	263,067,000	4,725,900	90,989,000	(1)	358,781,900
Difference $	50,327,763	-8,225,870	-1,270,618	-3,111,577	37,719,698
Difference %	24	-64	-1	-	12

A further review was conducted on the periods associated with the activities conducted by the major installation vessels as a separate gauge of appropriateness of the contract sums vis-à-vis the model estimates. The results of that comparison are presented in the Table 11-2 below:

Table 11-2 Comparison of recorded and benchmark SURF installation vessel durations

Vessel	Saipem Days	Q$ Model Days
Survey Vessel (1)	17	11
Installation Vessel/Pipelay (2)	113	126
Diving Support Vessel (3)	137	223
Total	266	360

Notes
1 Pre- & Post lay, FLET Buoys
2 Flowlines, Risers & Subsea Structures Installation
3 Umbilicals, Risers, Jumpers & Flying Leads Installation, As-Built/As-Laid Surveys

12. Seismic Review and Benchmark

The following section provides a summary of the seismic expenditure which was incurred for seismic activities within the Stabroek Block during the audit period

For detailed review see Seismic Report.

Seismic activities are generally broken down into 3 core areas of activity:

1) Acquisition
2) Processing
3) Interpretation

This report focuses on reviewing the seismic acquisition and processing costs incurred by EEPGL in the development of the Stabroek Block. Acquisition and Processing costs are largely directly contracted to service providers while Interpretation costs consist mainly of EEPGL/ExxonMobil employee time and are recorded under the Geol. and Geophysical Interpretation budget category.

Offshore seismic acquisition costs have been benchmarked using IHS Markit's SeismicBase database.

Key Highlights from this review follow:

- Guyana Geology and Mines Commission (GGMC) have indicated that approximately 34,194 km of 2D and 27,307 km^2 of 3D seismic was acquired within the Stabroek block during the audit period (1999 – 2017). Details of these surveys is shown in Table 12-1.

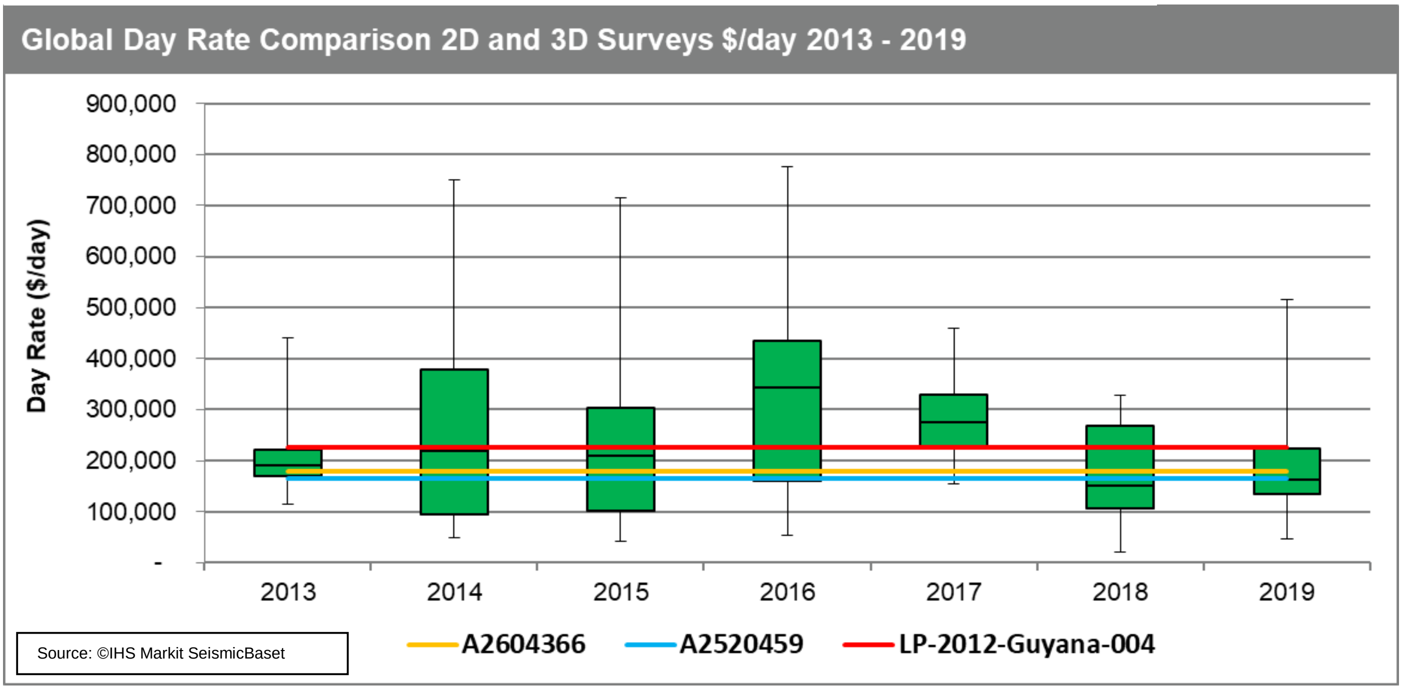
Table 12-1 List of Seismic Acquisition Surveys over the Stabroek Block

#	Date	Name of Survey	Company/ Vendor	Type of Survey	Area (km2)	Length (km)	Contract Reference
1	Nov-08	Stabroek Block Multiclient Survey	Multiclient/PGS	2D		7,500	LP-2008-Guyana-001
2	Nov-08	Deepwater Reconnaissance Survey	Multiclient/PGS	2D		4,169	LP-08-Guyana-03(DW Recon)
4	Oct/Nov - Dec 2010	Stabroek Block	CGG Veritas	2D speculative		4,640	LP-2010-Guyana-004
5	Nov - Jun 2011	CGV Stabroek 2D (Guyana)	CGG Veritas Us Inc	2D-Speculative		7,500	LP-2010-Guyana-004
7	2013	Guyana Multi-Client 3D Seismic Program (Project A)	CGG US Ltd	3D	1,100		LP-2012-Guyana-002
8	2013	Guyana Multi-Client 3D Seismic Program (Project B)	CGG US Ltd	3D	1,250		LP-2012-Guyana-004
9	Jul -2015	Ranger Survey	CGG	Spectrum 3D	1,115		A2520459
10	Jul -2015	Liza NW Survey	CGG	Spectrum 3D	3,065		A2520459

#	Date	Name of Survey	Company/ Vendor	Type of Survey	Area (km2)	Length (km)	Contract Reference
11	Jul -2015	Liza SE Survey	CGG	Spectrum 3D	1,890		A2520459
12	Feb -2016	Guyana Stabroek 3D 2015	Exxon/GEO Celtic, CGG Alize	3D	17,058		A2520459
13	Jul -2017	Stabroek Other Area – Exploration Area 3D/4D Baseline Marine Seismic Survey	PGS	3D	1,829		A2604366
				Total	**27,307**	**34,194**	

- A total of $148,397,000 has been recorded in the Statement of Expenditure and Receipts (SE&R) during the Audit period against the Seismic and Other Data Acquisition budget category.
- EEPGL has provided supporting documentation which reconciles with the Seismic and Other Data Acquisition costs being charged to the Cost Bank.
- Neither EEPGL nor GMMC provided any records of seismic activity prior to 2008, and EEPGL provided no other evidence for the expenditure amounting to $500,000 of seismic related costs that was incurred in 2000/01. The Audit Team recommends that this amount be removed from the Cost Bank.
- Geoscience Technical costs recorded directly in the General Ledger towards Seismic and Other Data Acquisition lack transparency. These transactions have been reviewed via the Intercompany analysis and are predominantly for time writing for Affiliate Company Employees.
- Seismic related costs are also included under the "Liza Discovery Evaluation" budget category. Closer review of the General Ledger and TRIAD files provided by EEPGL shows $18,711,000 of seismic related expenditure was incurred in 2016 and 2017 recorded against the Liza Discovery Evaluation budget category.
- Acquisition for offshore seismic data is primarily a function of prevailing offshore vessel charter rates. The vessel charter rates negotiated within the seismic acquisition contracts for CGG 2015 (A2520459) and PGS 2017 (A26604366) were within or below the lower quartiles of the prevailing market. The vessel rate negotiated with CGG (LP-2012-GUYANA-004) was at the upper quartile for 2013 although the contract was signed December 2012.

Figure 12-2 Comparison of Benchmark Seismic Acquisition Costs



13. Materials Review and Benchmark

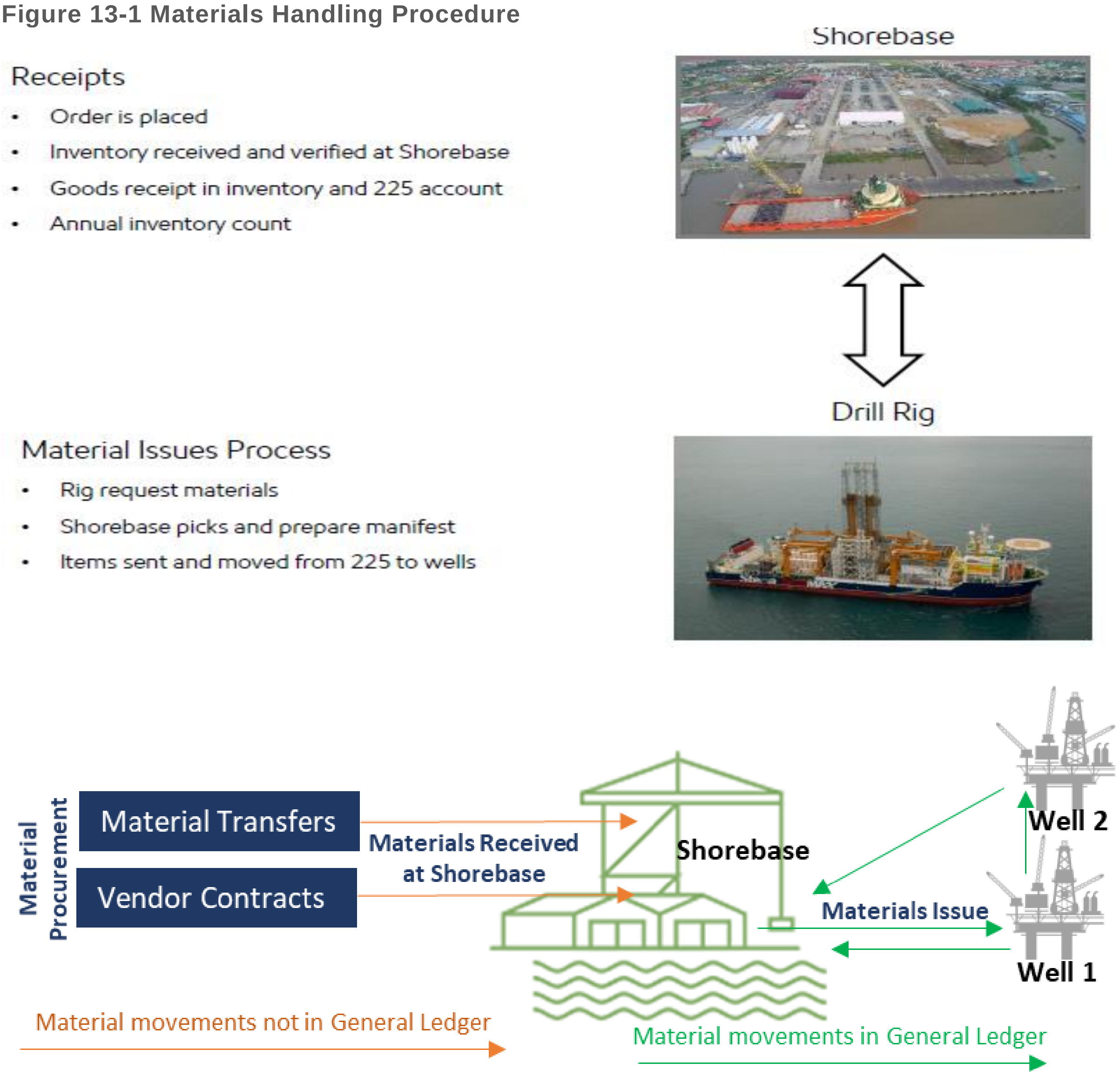
The following section provides a summary of the expenditure which was incurred for materials, inventory and warehousing within the Stabroek Block during the audit period

For detailed review see Material Report.

Material Planners and members of the Drilling department within EEPGL forecast the future material requirements based on the forward plans and AFEs for wells including anticipating long lead items which require additional time to purchase. Within the audit period, the materials used were largely associated with the drilling and construction of the exploration and appraisal wells, future periods will include materials and consumables for development and operations covering a much wider range of materials. Materials are sourced and purchased into Exploration & New Venture stocks in both in country and out of country warehouses. Material requirements from such inventory is identified and requisitioned for consumption. The stock is charged to well and recorded in General Ledger when it leaves the shore base. Unused materials are credited back to the General Ledger if and when they are returned to the shore base.

Figure 13-1 below illustrates how materials were handled during the audit period.

Figure 13-1 Materials Handling Procedure



Key Highlights:

- It is best practice for an Operator to have the system capabilities and inventory management processes to track inventory across, purchases, warehousing and final use for major items. Material transfer recorded in the General Ledger without Vendor details do not provide adequate details, limiting auditability. The Audit Team recommends that EEPGL provide information from samples of the typical global contracts to justify the charges applied to materials in the General Ledger:
  - Vendor Name
  - Contract (s)
  - Award Recommendation
  - Invoices
- The identification of Materials in the General Ledger is not clear and requires considerable analytic effort. Transparency in the records submitted by EEPGL should be improved.
- During the audit period EEPGL recorded spending of approximately $40.4 million of materials without any Vendor details within the General Ledger. These costs have been identified as material issued from the shore base for use in Petroleum Operations. Justification for the cost of these materials has not been provided and these costs should be removed from the Cost Bank.
- Material costs are predominantly a function of well depth. IHSM's has reviewed actual cost data for offshore wells between 5,000 to 6,500 meters. The data indicates that it is reasonable to expect material costs to account for 15-25% of total well cost. EEPGL's spend on materials falls within this range with total material costs of $143.3 million out of $902.9 million as detailed in Table 13-1 below:

Table 13-1 Breakdown of Materials Component of Well Costs

Well ($)	G/L Well Cost	FWR Well Cost ($)	Total Material Cost ($)	Material % to G/L Well Cost	Material % to FWR Well Cost
Liza-1	216,439,830	218,431,000	20,672,163	9.55%	9.46%
Liza-2	158,801,625	156,618,000	27,880,800	17.56%	17.80%
Liza-3	70,734,902	65,823,000	12,722,277	17.99%	19.33%
Payara-1	110,960,570	105,500,400	20,022,229	18.04%	18.98%
Skipjack-1	51,906,660	48,148,800	9,006,327	17.35%	18.71%
Snoek-1	38,491,459	37,246,300	7,659,236	19.90%	20.56%
Liza-4	88,451,252	68,704,100	18,093,075	20.46%	26.33%
Payara-2	44,912,752	45,348,200	9,739,100	21.68%	21.48%
Turbot-1	56,587,061	55,715,500	10,827,066	19.13%	19.43%
Ranger-1	65,640,606	97,500,000	6,656,074	10.14%	6.83%
Total	**902,926,717**	**899,035,300**	**143,278,346**	**15.87%**	**15.94%**

- There is no transparency for inventory adjustments with no evidence provided of the reasons why the adjustments are necessary. The GoG were not invited to material counts during this period, a requirement in the PSA, and applying inventory adjustments to the General Ledger is not consistent with method of only applying material costs when materials leaves the shorebase. The Audit Team recommends that a total of $349,098 related to inventory adjustments be removed from the Cost Bank as adequate justification for these charges has not been provided.
- Warehousing costs are recoverable in accordance with the 2016 PSA. During the audit period a total of $8.35 million has been identified as warehousing costs between 2015 and 2017.

14. Contract Procurement

The following section provides a summary of the contracts procured during the audit period.

For detailed review please see Contract Procurement Report.

The procurement review and contract analysis lifecycle commence after a need is established by the business line and vendors bid for a contract which ends in contract signature. Procurement is generally subject to many risks including fast tracking due to delay in plans, higher cost of awards, sole source and single source contracts that are non-competitive, limited scope among other issues. It is rewarding in many ways, to ensure that the procurement process has transparent and competitive bidding processes in place to build long-term business relationships that are critical to success.

EEGPL offices based in Georgetown outlined the processes followed for procurement of materials and services. The local procurement function was set up in Guyana in 2018, prior to which this function was handled out of US. The current process for procurement of services and materials adopted by EEPCL is as follows:

IV. **Procurement of Services:** Local procurement function established in 2018 focuses on developing local vendors and contractors. Center for local Business Development is utilized to evaluate qualified bidders. There is a competitive bidding process and bids are evaluated technically, commercially and operationally. Management finally approves the award to the winning bidder based on the Award Recommendation document.

    There are Global Master Services Agreements with contractors managed out of US. These MSA agreements are standard agreements with agreed T&C, and there may be multiple agreements for a single item. These are also termed as “Enabling Agreements” that enable the local procurement to leverage these agreements for the local requirements.

    Contracts tendered or executed in the US with limited local procurement involvement include the following.

    - EPIC contracts facilities
    - Drilling materials
    - Drilling services including rig lease
    - Seismic services

V. **Procurement of Materials:** As per the present practice, procurement Material Planners and Drilling department forecast well material requirements and anticipate long lead items. Materials are sourced and purchased into Exploration & New Venture stocks both in Guyana and out of country warehouses. Material requirements from such inventory is identified and requisitioned for consumption. The stock is charged to the Stabroek General Ledger when it leaves the shorebase.

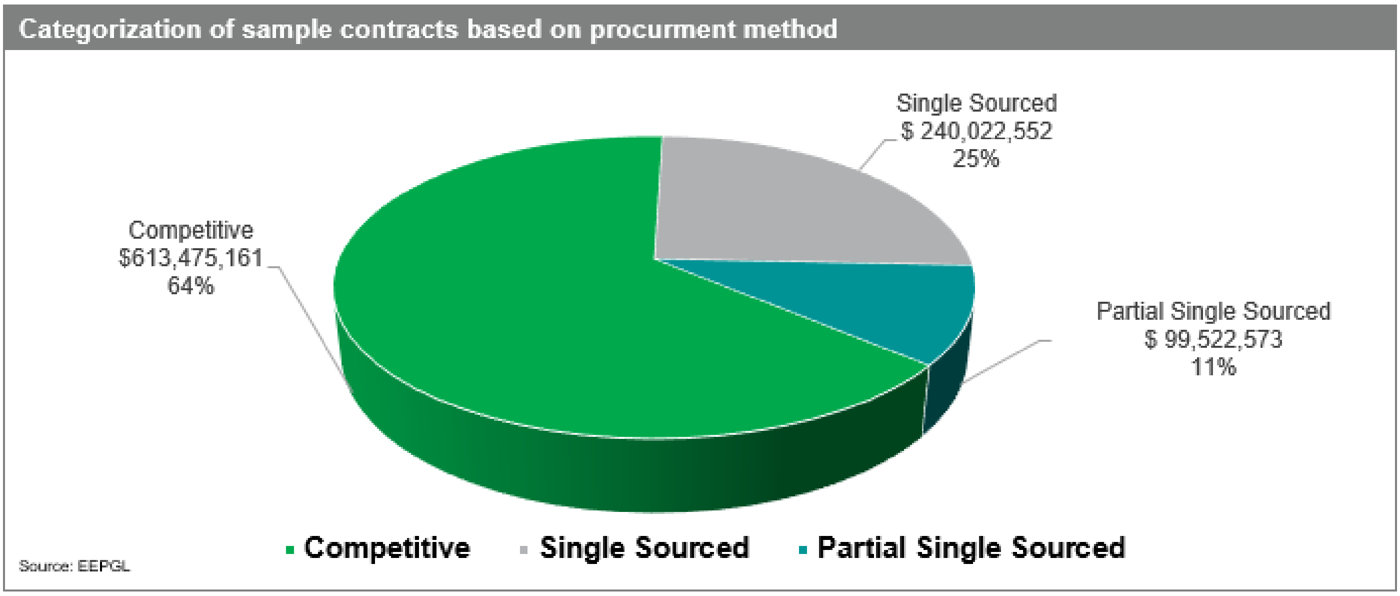
VI. **Single Source contracts:** As per present practice, there are certain contracts awarded on single source basis. These are justified by benchmarking or discussions with category experts. Though single source contracts don’t go through the bidding process the same process is applied in these cases regarding technical, commercial, operational, and financial qualifications.

Figure 14-1 below shows the breakdown in contract procurement method used:

- Competitive: offers were received from multiple bidders and the most appropriate selected
- Sole Source: only a single vendor was approached to supply the goods or service
- Partial: the contracts/vendors used a combination both competitive award and single source elements

A total of $1,067 million is attributable to vendor spend over the contract period, of this total procurement details for $953 million or 89% of this amount were analyzed by procurement process.

Figure 14-1 Procurement mechanism breakdown of reviewed contracts ($)



Most of the contracts reviewed, amounting to a value of $613.5 million or 64% of the total value, were contracted on a competitive basis in alignment with PSA provisions. However, 25% of the value or $240 million were single sourced and 11% of the value or $99.5 million were partially single source awards.

Partial & Single Sourced Contracts

Deepwater Champion was contracted at a rate higher than the market, $15,082,260 should be removed from the Cost Bank. A total of $13,394,616 should also be removed from the Cost Bank from contracts that were single sourced and justification of the charges has not been provided.

As per the PSA, Section 3.1(d)(i): The actual costs of contracts for technical and other services entered into by the Contractor for the Petroleum Operations, made with third parties are cost recoverable; <u>provided that the prices paid by the Contractor are competitive</u> with those generally charged by other international or domestic suppliers for comparable work and services.

However, the PSA does not outline the definition of "competitive" that could signify either competitive tendering or solid justification that the prices obtained for services are competitive. Generally competitive pricing is a pricing strategy in which the competitors' prices are taken into consideration when purchasing a product or a service.

Of the $240 million single source awards it was observed that $100 million had limited benchmark or comparative data available to demonstrate competitiveness of the rates agreed to in the contract. For the remaining $140 million or 58% of the total, reference data was available for contracted rates.

The largest contributor to the value of single sourced expenditure which does not demonstrate competitive pricing is related to the Deep-Water Champion drillship which was contracted from Triton / Transocean at a day rate of $707,620/day; with total contract spend amounting to $87 million. Not considering ancillary service charges, 87 million divided by a day rate of $707,620/day results in payment for 123 days. Given the upper quartile of the prevailing market rate was $585,000/day, justification has not been demonstrated for $15 million (123 days x Day Rate Difference ($707,620-585,000/day).

A number of the single source contracts as listed in Table 14-1, did not have sufficient justification to show that they meet the requirement for demonstrating competitive pricing. These costs are valid Petroleum Operations costs but should not be included in the Cost Bank as the justification has not been provided.

Table 14-1 List of Single Source contracts

	Vendor	Vendor Scope	Spend until 2017 ($)
1	2H OFFSHORE INC	Riser Design	419,243
8	GUYANA DEEP WATER OPERATIONS INC UK Ltd	Orders associated with SBM FPSO operations & maintenance	3,750,000
11	OIL STATES INDUSTRIES	Liza Project - Jumper Connectors	6,538,886
12	QUAIL TOOLS LP	Drilling equipment rental	2,686,487
	Total Single Sourced Contracts		**13,394,616**

Competitive Awarded Contracts

All contracts market Competitive in this analysis meet the requirements to be included in the Cost Bank.

15. Vendor Contracts & Invoice Review

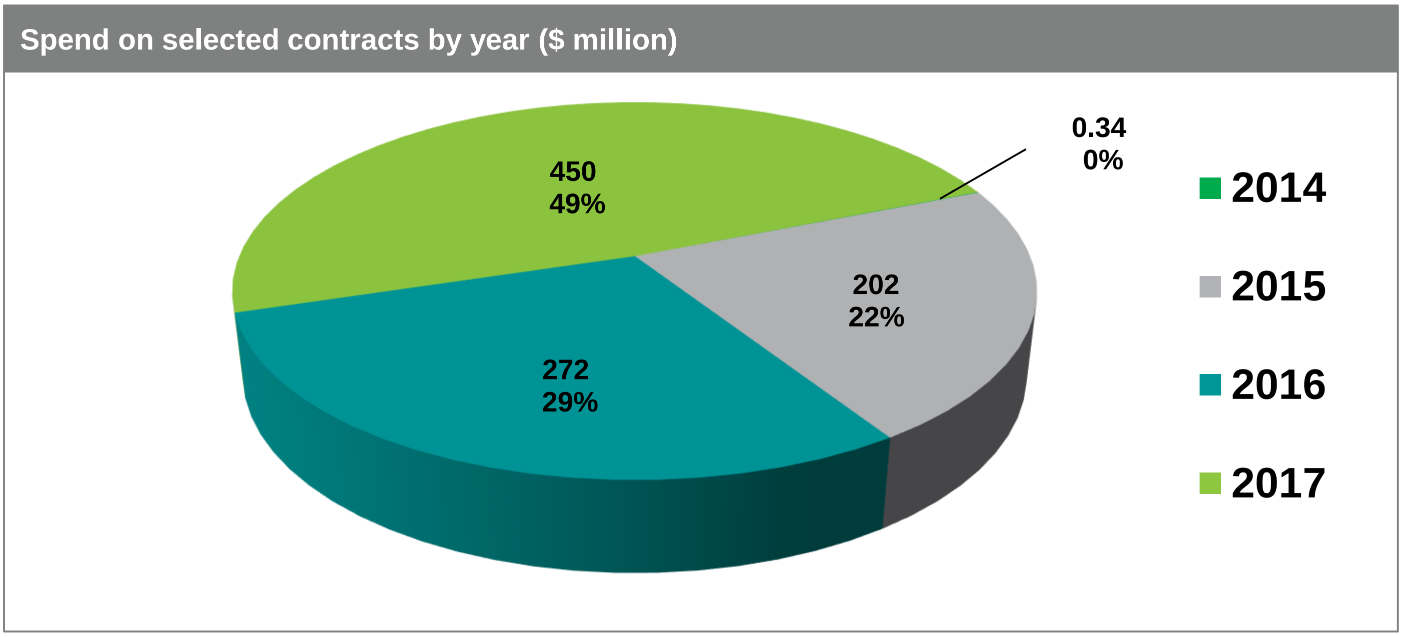
The following section provides a summary of the vendor contracts analyzed. A listing of contracts reviewed is included as Appendix 1.

For detailed review please see Vendor Contract Report.

The Audit Team has further reviewed contracts, assessed invoices against contract scope, and verified invoices for the majority of the procurement contracts amounting to $925.7 million or 87% of the of $1,067 million attributable to vendor spend over the audit period. A total of 66 contracts were reviewed as part of this audit, see Appendix 1 – for a full list of the contracts reviewed.

Vendor related spend analyzed is distributed across several years during the audit period as detailed in Figure 15-1 below. The contract spend has been increasing as the activity and development increased within the Block.

Figure 15-1 Annual Split of Contract Expenditure



The 66 contracts (which includes all contracts over $500,000 and a representative sample of contracts of lower value) and respective invoices have been reviewed. A summary of the contracts where there are issues relating to cost recovery is shown in Table 15-2 below.

Table 15-2 List of contracts with issues preventing cost recovery

Ref	Contract Observation Table	$
6.2	Bariod: PO raised 3 months after receipt of goods	772,000
6.4	Saipem: Invoice over contract milestone	3,043,270
6.7	Nautical Ventures: Supply outside contract scope	454,093
6.8	Hornbeck: Tank modification of vessel outside contract scope	250,000
6.9	National Helicopter: Rates /cost over Bristow helicopters	1,604,544
6.11	Core Labs: Field expenses outside scope	34,483
	Total	**6,158,390**

For the contracts listed in Table 15-2, amounting to a total value of $6.2 million, the documentation provided by EEPGL does not provide adequate justification to allow inclusion in the cost bank.

Details of observation:

15.1 Bariod

Reimbursable Invoice – PO raised 90 days later after receipt of goods

Reimbursable invoice # 47947W ($771,813.18) for $**772,000** was reviewed during the course of the audit. The service delivery date was also the same date of the invoice of 23/06/17 and it was booked in the General Ledger for cost recovery. However, the PO # 4501336453 is dated 04/10/17 and was raised more than 90 days after the invoice was submitted. Pos should always be raised prior to goods or services being supplied and certainly before the invoice is generated.

15.2 Saipem

General Ledger shows that the first 8 contract milestones have been invoiced; milestone 9 has not been invoiced or accrued. Of the 16 entries against this contract, 13 match the contract values and 3 have higher amounts. The three invoices are: 201710066/2006/0103 (see Table 15-3 below) with excess invoicing amounting to **$3 million** paid over and above the contractual milestones. No evidence of a change order or scope change have been provided to the Audit Team.

Table 15-3 Saipem Invoices higher than contract value

Year	Account	Contract Value ($)	Additional Amount ($)	Text	Invoice Reference
2017	46209000	6,587,316	(359,100)	LIZ-CM-C-17-1 – Milestone #8 Executed POs	201712006
2017	46209000	2,540,250	(2,085,670)	LIZ-CM-C-17-1 - Milestone 6 PO	201710103
2017	46209000	1,097,886	(598,500)	LIZ-CM-C-17-1 - Milestone 5 Complete Line Pipe PPM	201710066
	Total	**10,225,452**	**(3,043,270)**		

15.3 Nautical Ventures

Invoice #960000100 dated 21/1/16 for $270,426 and invoice #9600001002 dated 21/1/16 for $283,667. The sum of these invoices total $**454,093** and are raised for Fuel & Water Auditor Inspection. This description does not relate to any item in the scope of the contract.

15.4 Hornbeck Offshore

Invoice #015713M dated 19/1/16 for $**250,000** was paid as per contract for a vessel tank modification fee. This scope seems to be part of the vendors responsibility. The contract was competitively tendered, the award was driven by the business line and not to the lowest bidder. This amount paid for vessels tank modification was not equalized in the award assessment for commercial comparison meaning that the comparison was not completed on an equal basis.

15.5 National helicopters

Over the audit period, there were two providers of helicopter services to the offshore facilities in Guyana. On comparison of the contracts between the two providers it has been observed that Bristow helicopter contract was tendered (i.e. awarded on a competitive basis) while the award to National Helicopter was single sourced. Taking the Bristow Helicopter contract as the prevailing market rate, higher cost that was paid to National Helicopters requires justification which has not been provided. The additional amount of $**1,604,544** paid to National Helicopter should not be allowed in the cost bank without this justification.

15.6 Core labs

In 2016, certain “field expenses” amounting to $**34,483** were booked under account code 46013105. No details of these expenses were provided and therefore it is not possible to ascertain the classification and nature of the expenses booked under this code.

16. TRIAD & Time Writing

The following section provides a review of the TRIAD files provided by EPPGL as supporting documentation for the time writing, intercompany and third-party expenses recorded in the General Ledger as “Jobs”. Jobs are internal project/activity codes used by EEPGL and ExxonMobil Affiliate companies.

For detailed review see TRIAD & Time Writing Report.

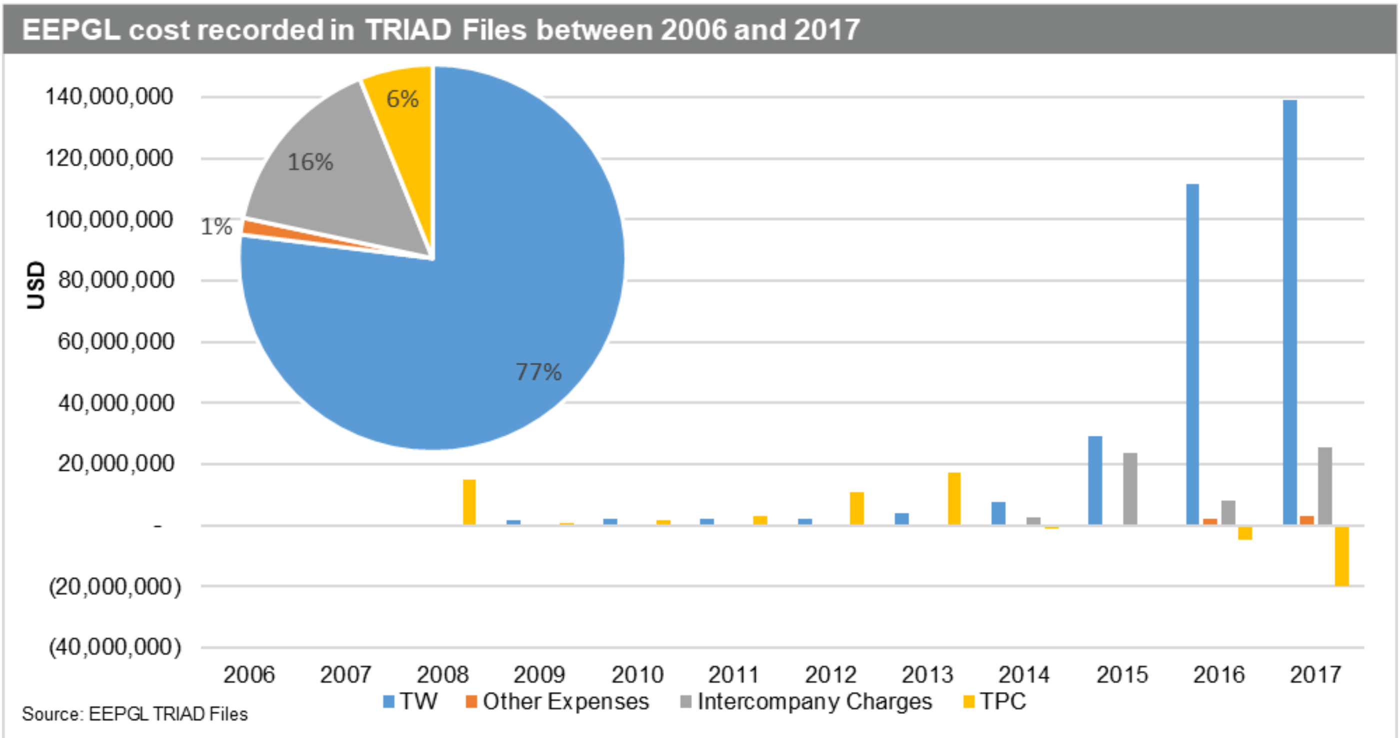
EEPGL stated that the TRIAD system is used to capture expenses incurred by Affiliated Companies classified as “Jobs” which are then charged back to EEPGL (TRIAD Customer Code: 3322) with no profit element.

A “Job” can be made up of one or more different elements such as:

1. **Time Writing** – time charged by employees of affiliated ExxonMobil companies directly in the support of Petroleum Operations within the Stabroek Area.
2. **Other Employee Expense Including Travel** – travel and other reasonable expenses incurred by employees of affiliated ExxonMobil companies directly in the support of Petroleum Operations within the Stabroek Area.
3. **TRIAD Intercompany Expenses -** expenses incurred by affiliated ExxonMobil companies directly in the support of Petroleum Operations within the Stabroek Area. Note there are additional Intercompany Expenses recorded directly in the General Ledger in addition to these charges.
4. **Third Party Vendor Expenses** – Vendor expenses incurred by affiliated ExxonMobil companies directly in the support of Petroleum Operations within the Stabroek Area.

The total expenditure recorded in the TRIAD Files amounts to $391 million.

Figure 16-1 Breakdown of expenditures record in TRIAD system



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Grand Total
TW	55,348	397,355	493,024	1,801,093	2,029,700	2,297,635	1,982,427	4,123,986	7,798,261	29,104,607	111,653,881	139,120,416	300,857,732
Other Expenses	1,465	4,414	3,829	21,590	28,476	10,301	7,770	14,299	92,512	359,427	1,987,493	2,931,077	5,462,654
Intercompany Charges		22,784	25,619	112,356	53,003	89,280	148,367	474,502	2,603,273	23,618,421	7,937,326	25,539,791	60,625,072
TPC		119,948	15,201,469	900,507	1,752,729	3,254,490	10,791,826	17,426,696	(942,012)	(103,781)	(4,761,139)	(19,654,533)	23,985,849
Total	**56,813**	**544,501**	**15,723,941**	**2,835,546**	**3,863,908**	**5,651,706**	**12,930,389**	**22,039,483**	**9,552,034**	**52,978,674**	**116,817,561**	**147,936,751**	**390,931,307**

Key Highlights:

A reconciliation between the various jobs charged in the General Ledger vs the jobs recorded in the TRIAD file has been completed. EEPGL were requested to supply additional data and answers through a number of formal requests.

Time Writing (TW):

- The Average Rates used by each of the Affiliated Companies that are used for time writing charges to EEPGL are audited by PWC on an annual basis. PWC certifies that the expenditures incurred are billed to affiliates with zero profit and include only actual costs of salaries, wages and related costs of employees.
- The Audit Team has seen and reviewed these certificates. This provides assurance that the rates used by within the TRIAD System and charged back to the Stabroek project do not include a profit element.
- The rates used to charge these manhours to the General Ledger are often adjusted, sometimes several times in a year, with the adjustments applying to all manhours in that year. It is recommended that the rates are agreed at the start of each year (through the WP&B) and no further adjustments permitted until the following year.
- Some affiliate employees appear to work excessive hours that would seem above normal practice. It is not uncommon to include limits on the number of manhours per month that can be charged in these circumstances, especially for salaried staff where overtime is often not payable to the employee. To assess how this would impact on the charges raised, the audit team have used the following thresholds to compare with actual hours being charged by each ExxonMobil employee:

Table 16-1 Threshold limits for monthly manhour charges

	EEPGL Standard (hr/month)	Threshold for Audit Assessment (hr/month)
Non-Rotator	136 – 184(1)	200(2)
Rotator	336(3)	360(4)

Notes:

1) The number of standard working days per month can vary from 17 (February where first working day falls on 3rd) to 23 days (maximum number of working days where the month contains 31 days). Standard day is 8 hours.
2) Includes allowance for average of 10% overtime.
3) Normal rotational shift of 28 days.
4) Allows 2 additional days in case of late shift change / travelling time.

- Several employees have been observed as recording time in excess of the thresholds identified above. The Audit Team reviewed a list of key employees showing that a total of 11,606 hours for non-rotator employees and a total of 168 hours for rotator employees were recorded above these thresholds. Based on the average charge rate for these manhours, the cost of these additional manhours calculate as $4,282,430 for non-rotator employees and $61,992 for rotator employees.
- The TRIAD system is very cumbersome, and it is difficult to understand the costs that are being charged to each Job. It would be advantageous to the GoG if EEPGL provided summaries for each Job including the manhours worked along with all associated charges. This should be tied to the annual WP&B allowing proper control and understanding of the costs.
- The time writing activities are acceptable for exploration and development studies and do not include services that should be covered under the overhead charge.

Other Expenses:

- The TRIAD system is also used to record personal and minor expenses to any of the Jobs. On reviewing these entries, the Audit Team recommends that the following Other Expenses be removed from the Cost Bank:
  - No Description Recorded for Other Employee Expense – $19,465 | Inadequate supporting documentation
  - Other Business Expenses – $31,295 | Inadequate supporting documentation
  - Training and Conference Fees – $9,068 | Not a valid PSA recovery item
  - Gifts – $3,084 | Not a valid PSA recovery item

Third Party Charges (TPC):

- Third Party Charges – Vendor Charges: EEPGL did not provide adequate supporting details for $2,383,099 of the TPC vendor charges sampled. The majority of this spend was related to seismic activities with CGG and PSG – which are reasonable costs in carrying out Petroleum Operations. However, appropriate documentation should be furnished regarding these costs and until such documentation is received the Audit Team recommends removal of $2,383,099 from the Cost Bank.
- Additionally, the Audit Team noted $274,140 of costs incurred on vendors which may be related to R&D related activities. As such, these costs require the Ministers approval in accordance with Section 3.2 (c) of the 2016 PSA, and evidence of this approval has not been provided. Audit Team recommends removal of $274,140 from the Cost Bank.
- Procurement Credit Cards: The use of procurement credit cards is common practice in international business. Most internal business compliance policies require holders of procurement credit cards to submit monthly expense reports detailing the nature of the expenses incurred, ensuring the business only reimburses holders of these credit cards for business related expenses. For the purpose of cost recovery, a sample of itemized expense reports corresponding to the procurement credit card charge were requested but have not been

provided by EEPGL. Providing the assurance that costs incurred on these credit cards was relevant to Petroleum Operations within the Stabroek Block. In the absence of this information the Audit Team recommends that the total amount of $341,325 be removed from the Cost Bank.

- Vendor Unknown: During the review of Third Party Contract Vendor charges, details of vendors or the purpose of the charge could not be established for 10 of the records totaling $62,747, this amount should be removed from the Cost Bank.
- No Vendor Identifiable: Audit Team identified 103 records totaling $5,436,625 which did not have a vendor name and did not appear to be an offset record. EEPGL provided supporting documentation for $2,792,463 of this amount which provides sufficient evidence as to the basis of the records and cost. However, for the remaining $2,644,162 the documentation provided by EEPGL is not adequate and this amount should be removed from the Cost Bank.

  In order to verify these costs, the documentation provided should allow GoG to verify the basis of the cost and purpose of the charge. The documentation provided is evidence of intercompany transfer therefore it is possible to identify these costs as intercompany charges. While these maybe relevant costs to conduct Petroleum Operations, the Audit Team cannot identify the basis of cost or the purpose for the charge. As such, EEPGL have not provided adequate documentation justifying the inclusion of these charges for cost recovery.

TRIAD Intercompany Expense:

- Table 16-2 below highlights the lack of transparency of the supporting documentation provided for intercompany expense:

Table 16-2 Breakdown of intercompany expenses by level of justification provided

Audit Transparency Flag	Amount ($)
1 - Documentation Provided	37,826
2 - Inadequate Documentation / Basis of Cost Cannot be Established	22,194,032
3- No Documentation	12,307,166
Total	**34,539,024**

- For 99% of the intercompany charges within the TRIAD file queried (sum of $22,194,032 and $12,307,166), the documentation provided by EEPGL is not adequate to identify the basis of cost or the purpose for the charge. While these maybe relevant costs to conduct Petroleum Operations, the Audit Team recommends not allowing these charges for cost recovery.

17. Venture Office & Payroll

The following section provides a review of the G&A, Venture Office and Payroll costs incurred within the Stabroek Block during the Audit period 1999 – 2017. EEPGL indicated that the Guyana Venture Office was established in 2014.

For detailed review see Venture Office & Payroll Report.

A total of $24,024,391 has been recorded in the Statement of Expenditure and Receipts (SE&R) during the Audit period between 1999 – 2017 against (1) Office Operations/ General & Administrative and (2) Venture Office Expenses, as detailed in Table 17-1 below:

Table 17-1 Annual breakdown of Venture Office expense

Line	EEPGL G&A | Venture Office | Payroll (KUSD)	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	IDT
A1	Office Operations / General & Administrative	2	29	3	8	43	51	39	36	86	218	2,686	4,691	-	-	7,892
A2	Venture Office	-	-	-	-	-	-	-	-	-	-	-	-	5,768	10,364	16,132
A	**Total SE&R (G&A | Venture Office | Payroll)**	2	29	3	8	43	51	39	36	86	218	2,686	4,691	5,768	10,364	24,024
B	**General Ledgers (Budget Category: Venture Office)**	2	29	3	8	43	51	39	36	86	218	2,686	4,691	5,768	10,364	24,024
C = A-B	*Reconciliation*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Prior to 2016 no “Venture Office” costs were recorded in the SE&R and post 2015 no “Office Operations / General & Administrative” costs were recorded in the SE&R.

Key Highlights:

- Payroll started to be recorded in the General Ledger in July 2014 which coincides with the establishment of EEPGL’s office in Guyana. Payroll expenses between 2014 and 2017 total $13,516,352.
- A total of $5,110,999 of Venture Office expense was recorded in the General Ledger’s between 2004 and 2016 (excluding payroll). The Audit Team recommends $185,695 of this total be removed from the Cost Bank as there is insufficient documentation to justify the purpose of these costs and conform that they are related to Petroleum Operations.
- Charges coded to “InternlChrg,Serv,Staff,PublicAffairs” are not cost recoverable. EEPGL have stated that they will apply a credit of $263,899 to the Cost Bank in 2020.
- Depreciation charges noted in account “A,nc,P&E” totaling $11,023 are recommend to be removed from Cost Bank. Charges to the Cost Bank should be made when transactions occur, not when the value of an item is written down in the accounts.
- A total of $5,476,781 of Venture Office expense was recorded in the General Ledger in 2017 (excluding payroll). Several of the costs are recorded do not have an adequate level of transparency restricting the Audit Team ability to determine the basis for the cost. As such the Audit Team recommends $2,307,910 be removed from the Cost Bank.
- In 2017 Venture Office expenses were recorded within E2732CR001 cost center before being allocated to the Stabroek Block. Costs which have limited transparency, $1,168,607, are not directly related to Petroleum Operations, $22,249, have potential to be classified as overhead costs, $605,421, and non-itemized procurement credit card charges, $10,216, have been reviewed and are recommended to be removed from the Cost Bank.
- Summarizing the all recommendations for Venture Office, the Audit Team recommends the amounts shown in Table 17-2 to be removed from the Cost Bank.

Table 17-2 Breakdown of Venture Office expenses to be removed from Cost Bank

Ledger period	Description	Cost Centre / Account Name	Insufficient Justification ($)	Non-Petroleum Operations Related ($)
2004-2016	Non-Petroleum Operations related costs	Venture Office costs		185,695
2004-2016	Erroneous charges	InternlChrg,Serv,Staff,PublicAffairs		263,899
2004-2016	Depreciation charges	A,nc,P&E		11,023
2017	Non-Petroleum Operations related costs	E2732CR001		22,249
2017	Records with Limited transparency	Venture Office costs	2,307,910	
2017	Records with Limited transparency	E2732CR001	1,168,607	
2017	Non- itemized procurement credit cards	E2732CR001	10,216	
2017	Potential overhead overlap	E2732CR001	605,421	
Total			**4,092,154**	**537,563**

18. General Ledger Intercompany Charges

The following section summarizes the review of the Intercompany Charges recorded directly within the Stabroek Block General Ledger during the Audit period 1999 – 2017. In the General Ledger up to and including 2016, Transaction Type labelled Intercompany Charges, contains all Intercompany charges including the time writing entries recorded in the TRIAD system, accounting adjustments, offsetting entries, accruals, third party vendor payments made by affiliate companies, and material transfers. In the 2017 General ledger, The Audit Team found transactions that it considers are Intercompany Charges that have not been labelled as such. With the variances in the method used to identify Intercompany Charges between the two different accounting systems used in the General Ledger, the Audit Team broke the analysis down into two parts.

Intercompany Charges in 1999-2016 General Ledger

In the 1999-2016 General Ledger, the Intercompany Transaction Type is used to record any transaction originated by ExxonMobil affiliates. This includes both records entered through the TRIAD system and those directly entered into the General Ledger. This part of the audit is focused on the transactions recorded directly within the General Ledger as entries recorded through the TRIAD system have been reviewed separately (see Section 16. TRIAD & Time writing).

The total positive entries in the General Ledger sum up to $188,177,474 but there are also offsetting entries (negative entries that match with positive entries in the General Ledger) which reduce this amount to $118,821,459. Time writing/TRIAD entries account for $58,037,916 million and these have also been reviewed through other parts of this audit leaving $60,783,543 that was reviewed further in this section. A breakdown of the Transactions labeled Intercompany in the General Ledger are shown in Table 18-1 below.

Table 18-1 Breakdown of Intercompany Charges in 1999-2016 General Ledger

	Transaction Type	Value ($)	Comments
1	Offsets	69,356,020	Negative values in the General Ledger reducing the value of the positive entries
2	Time writing	58,037,916	Time writing entries reviewed through the TRIAD system and reviewed in Audit Report 10. TRIAD File & Time writing
3	Accounting Adjustments	8,471,324	Includes transactions with offsets in the General Ledger not recorded as Intercompany
4	Reviewed elsewhere	25,483,739	Transactions which have been reviewed elsewhere in this audit. Includes payroll, statutory payments, warehousing, accruals and disbursements to identified vendors
5	Affiliates Costs	1,476,392	Expenses where and ExxonMobil affiliate is listed as the vendor
6	3rd Party Costs	25,352,089	Transactions where the vendor is unknown and not identified in one of the above categories
	Total of all positive entries	**188,177,474**	

In discussion with EEPGL, the Audit Team identified $8,471,324 of records where offset transactions were recorded elsewhere in the General Ledger under other Transaction Types. As the sum of the accounting Adjustments is zero and has not impact of the amount cost recovered, these transactions were not evaluated further

Of the remaining entries, $25,483,739 were transactions that have been reviewed in other sections of the audit including payroll for the Venture Office, statutory payments, accruals, warehousing and contracts with named vendors. As these transactions have been reviewed elsewhere, they are not considered further in this section.

That leaves affiliates costs where the vendor is listed as one of ExxonMobil's affiliate companies and Costs associated with unknown third parties but were paid for by an ExxonMobil affiliate. These transactions were queried with EEPGL to further understand the nature of the charges. The results of these queries, which are summarized in Tables 18-2 and 18-3 below have classified each of the transactions into the following categories:

1) **Satisfactory** – The additional documentation provided by EEPGL demonstrates the nature of the cost, provides the Audit Team with an understanding of the cost basis and purpose of the cost as it relates to Petroleum Operations. These costs should be allowable in the Cost Bank.
2) **<$value** – The Audit Team queried all transactions above this value.
3) **Inadequate** – EEPGL supply some documentation for these transactions but the documentation does not demonstrate the nature of the cost and the Audit Team cannot identify purpose of the cost as it relates to Petroleum Operations. Note, the majority of the supporting documents provided were receipts for intercompany charges but with limited or no details of how the charges were calculated. These receipts provided evidence that intercompany charges occurred but not for what the costs were and how they relate to Petroleum Operations.
4) **No Documentation** – EEPGL did not furnish any additional supporting documents but instead referenced previously submitted documents. As the previous documents had already been reviewed and did not provide sufficient justification of the costs, the Audit team continued to consider these costs not allowable for the Cost Bank.
5) **Potential Overhead** – the additional documents provided describe items which can be categorized as an overhead charge.
6) **Documents Incorrect -** the additional documentation contained errors in either the amount or the description of the transaction compared to the entry in the General Ledger.
7) **Duplicate Entries** – multiple entries in the General Ledger that are indistinguishable, satisfactory documentation may have been provided for one entry but not both.

Table 18-2 Transaction Type 5: Affiliates Costs

	Venture Office ($)	Drilling ($)	Geol. and Geophysical Interpretation ($)	Liza Discovery Evaluation ($)	Total ($)
Satisfactory	-	3,603	152,842	9,962	**166,407**
<$1,000	16,430	5,182	64	1,318	**22,994**
Total affiliate cost allowable	16,430	8,785	152,906	11,280	**189,401**
Inadequate	-	405,725	127,847	210,573	**744,145**
No Documentation	294,116	21,115	227,615	-	**542,846**
Total affiliate cost not allowable	**294,116**	**426,840**	**355,462**	**210,573**	**1,286,991**
Total affiliate cost	**310,546**	**435,625**	**508,368**	**221,853**	**1,476,392**

Table 18-3 Transaction Type 6: Unidentified Third-Party Intercompany Costs

	Venture Office ($)	Drilling ($)	Geol. and Geophysical Interpretation ($)	Land-Rentals ($)	Liza Discovery Evaluation ($)	Other Data Acquisitions ($)	Seismic ($)	Training ($)	Total ($)
Satisfactory	19,270	1,418,871	585,480	-	16,087	-	400,260	-	**2,439,968**
<$1,000	4,839	48,746	5,409	-	2,166	-	2,382	-	**63,542**
Total third-party cost allowable	**24,109**	**1,467,617**	**590,889**	**-**	**18,253**	**-**	**402,642**	**-**	**2,503,510**
Inadequate	32,416	6,510,786	2,279,792	-	22,500	100,613	11,400	-	**8,957,507**
No Documentation	201,309	2,260,498	170,614	(12,500)	(80,733)		10,015,080	6,875	**12,561,143**
Potential Overheads	10,000	439,787	72,199	0	-	-	-	-	**439,787**
Other - Documents Incorrect	0	74,509							**108,529**
Other - Duplicate Entries	0	699,414					34,020		**781,613**
Total third-party cost not allowable	**243,725**	**9,984,994**	**2,522,605**	**(12,500)**	**(58,233)**	**100,613**	**10,060,500**	**6,875**	**22,848,579**
Total third-party cost	**267,834**	**11,452,611**	**3,113,494**	**(12,500)**	**(39,980)**	**100,613**	**10,463,142**	**6,875**	**25,352,089**

Intercompany Charges in 2017 General Ledger

In the 2017 General Ledger there is no Transaction Type recorded with each entry. Therefore in order to identify those records which relate to Intercompany Charges, the Audit Team has used the Vendor Name to identify ExxonMobil affiliates and also identified potential further transactions do not have a Vendor Name associated with them but also appear to be Intercompany Charges. As with the earlier years, some transactions are offset with matching negatives transaction records, some are accruals into 2018 and some are negative amounts where a matching positive entry has not been identified. A summary of the charges considered Intercompany are shown in Table 18-4.

Table 18-4 Breakdown of Intercompany Charges in 2017 General Ledger

	Transaction Type	Value ($)	Comments
1	Offsets	3,028,980	Negative values in the General Ledger reducing the value of the positive entries
2	Accruals	2,827,938	Transactions entered to account for the value of work done in December 2017 but will be invoiced in 2018. There should be reversals and new entries for these values in 2018.
3	Affiliates Costs	2,720,481	Expenses where an ExxonMobil affiliate is listed as the vendor
4	Likely Affiliates Costs	48,850,560	Expenses where vendor is unknown but likely an ExxonMobil affiliate
5	Negative Transactions	26,796	Negative transactions with unidentified matching positive transactions.
	Total of all positive entries	**57,454,755**	

All affiliates and likely affiliates (lines 3 and 4 in Table 18-4) have been queried with EEPGL and the summary of the response and analysis of additional supporting documentation is summarized in Table 18-5 below.

Table 18-3 Transaction Type 6: Unidentified Third-Party Intercompany Costs

	Venture Office ($)	Drilling ($)	Geol. and Geophysical Interpretation ($)	Liza Discovery Evaluation ($)	Seismic ($)	Total ($)
Satisfactory	1,689,082	4,141,243	8,359,320	1,654,845	23,640	**15,868,130**
<$1000	1,342	21,752	10,316	58,331	1,395	**93,136**
Total unknown cost allowable	**1,690,424**	**4,162,995**	**8,369,636**	**1,713,176**	**25,035**	**15,961,266**
Inadequate	93,461	1,588,415	4,583,851	11,123,175	65,760	**17,454,662**
No Document	205,294	10,046,373	196,464	1,088,060	1,294,446	**12,830,637**
Potential Overheads	177,482					**177,482**
Other - Documents Incorrect	139,448		3,843,287	61,413		**4,044,148**
Other - Duplicate Entries	318,394		186,969	26,055		**531,418**
Other – Time writing	44,660		23,726	3,132		**71,518**
Other - Mistaken Entry			500,000			**500,000**
Total unknown cost not allowable	**978,739**	**11,634,788**	**9,334,297**	**12,301,835**	**1,360,206**	**35,609,865**
Total unknown cost	**2,669,163**	**15,797,783**	**17,703,933**	**14,015,011**	**1,385,241**	**51,571,131**

The total Intercompany Charges not allowable for inclusion in the Cost Bank is $59,745,435.

19. Annual Work Plan and Budget

The Audit Team reviewed the Work Plan and Budget (WP&B) submissions made by EEGPL as required under the provisions of the PSA. Budgeting exercises generally involve the preparation of a detailed budget, timely submission, discussion regarding the work plan, performance monitoring, variance analysis and justification for cost overruns – to form a basis for cost control.

Annual Work Program & Budget is an important tool for monitoring the activities of an Operator in their Contract Area during Exploration and Development phases. The PSA details the process for preparing, presenting and review of the Work Program & Budget in Article 6, 7 along with Section 7,8,9,10 of Annex C.

For detailed review see Annual Work Plan and Budget Report.

Key Highlights:

- The annual WP&B submitted by EEPGL does not meet the expected detail to meet the PSA requirement or conform to international best practices in Oil & Gas operations.
- The annual WP&B submitted by EEGPL does not provide the GoG with the ability understand the planned activities or provide any oversight. The WP&B should provide details of the activities planned to be undertaken and the resulting cost outlay, ensuring responsible and sustainable development of resources and procurement alignment with in-country value (ICV) opportunities.
- The operator indicated that a more detailed annual work plan and budget is prepared for the JV partners each year. A copy of this was requested during the course of the audit but was unforthcoming from EEPGL.
- EEPGL has not provided justification to changes and cost overruns against the submitted WP&B as required by the PSA.
- Total budget overruns amounted to approx. $330.3 million across 2009, 2010, 2014, 2015, 2017.

Best practice in Oil & Gas

International best practice includes submission of a detailed Annual Work Program and Budget with sufficient detail and narratives to enable the host governments to contribute meaningfully in the partnership and develop the oil fields in a responsible and conscientious manner.

The Minister would be unable to review the Annual WP&B as envisaged by the PSA with the level of information provided by EEGPL. In the absence of detailed budget, there is limited transparency and the Ministry's ability to monitor and review annual budgets and variances with actual expenditure incurred is reduced.

As an example; certain PSAs contain provisions that overruns in actual expenditures are limited to 10% of the budget – and operators are prohibited from spending more than a percentage above the WP&B without further approval (expenditure without approval is non cost recoverable). Any expenditure incurred beyond such limit would be cost recoverable only if specifically approved by the host government based on a revised WP&B or adequate justification of variances – allowing the host government to maintain project oversight. However, the 2016 PSA does not require such approvals.

The format of the Annual WP&B will be specific to each development and should be agreed between GoG and EEPGL, but a sample Table of Contents might be:

Executive Summary

Introduction

Activities

Staffing Projections including utilization of qualified Guyanese personnel

Personnel Costs

Facility and Infrastructure Cost Estimate Methods and Bases

Schedule Estimates

Allocation of Petroleum Costs

Budget Categorization

Utilization of Guyanese resources

Schedule of Timewriting Rates

Budget Summary Table (with cost broken down by the following categories, technical details and further breakdown of the cost for each category below should be provided in the Annual Work Activity and Budget Detail section). This should include identification of Jobs as completed by affiliates.

Seismic

Acquisition

Processing

Analysis

Drilling

Drilling Personnel

Exploration Drilling and Completions

Development Drilling and Completions

Development Well Maintenance

Subsurface Engineering Personnel

Field Operations

Operations

Maintenance

Logistics

Energy

Geoscience and Reservoir

Geoscience

Reservoir

Major Projects

Liza 1 FPSO

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Training

Recoverable Training

Guyanese Training program

Support Functions

Legal

Treasury

Human Resources

Tax

Public & Government Affairs

Procurement

Finance

Medical and Occupational Health

Operations SHE

Information Technology

Commercial / Planning

Georgetown Office

Budget Section Scope Overview (key technical information to support the Budget Summary Table)

Program Schedule (showing key activities that will be undertaken in the budget year and at least one year after that)

Expenditure Profiles (quarterly estimate of the expenditure)

Production Forecast (monthly production outlook)

Annual Work Activity and Budget Detail (detailed technical and cost breakdown of all planned activities)

20. Insurance

The following section provides a summary of the review of Insurance requirements.

For detailed review please see report titled 17. Insurance.

- As per Article 20.2 of the 2016 PSA, the Contractor shall effect at all times during the term of the Agreement, insurance as required by applicable laws, rules, and regulations and of such type and in such amount as is customary in the international petroleum industry in accordance with good oil field practice appropriate for Petroleum Operations.
- Insurance should provide coverage for third Party Liability loss/damage exposure from operations, coverage for drilling activities and operators extra expense including exposure associated with controlling the well, re-drilling, pollution and cleanup.
- EEPGL stated that each partner, EEPGL, Hess and CNOCC carry insurance cover for their respective interest in the PSA.
- Copies of insurance certificates have not been provided by any partner, contrary to the PSA requirement.
- EEPGL has maintained it's 45% share of Control of Wells (CoW), Operators Extra Expense (OEE) and Third Party Liability (TPL) insurance coverage through a wholly owned subsidiary of ExxonMobil, Ancon Insurance. Although wholly owned, Ancon Insurance acts as a separate company at sufficient arm's length from ExxonMobil. EEPGL provided evidence of Ancon Insurance consulting with an external insurance consultant, Jardine Lloyd Thompson, to set premium rates for Guyana.
- The General Ledger records premiums for EEPGL insurance coverage and invoices have been reviewed. The total amounts paid by EEPGL falls within the expected industry norms.
- The lump sum added to the Cost Recovery Statement in 2017 included insurance premium payments by Hess and CNOOC in 2015 but not information has been provided as to which timeframes these amounts covered. The General Ledger does not include any premiums paid by either party for 2016 or 2017. No evidence has been provided that either Hess or CNOOC are maintaining insurance cover and are therefore contravening the PSA requirements. Not having this insurance could leave GoG exposed to risks and costs that should be covered by the Co-Venture partners.

- CAR insurance has been taken out to cover the SURF facilities and activities. Premiums amount to a little under 2% of the SURF contract value indicating the insurance premium is in line with industry levels of 1-3%.
- Payments for National Insurance, Employee Life Insurance and Vehicle Insurance have been reviewed.

21. End of Year Accruals

The following section provides a summary of the End of Year (EoY) Accruals which were recorded within EEPGL's General Ledger for Stabroek during the audit period.

When used correctly, the use of accruals should not have an impact on the total cost recovery claimed over the life of a project. Accruals booked at the end of any year during the Audit period should be reversed in the subsequent year, canceling each other out.

For detailed review please see EoY Accrual Report.

Key Highlights:

- Prior to 2012 there was a low level of large-scale activities, accruals were not generally required.
- Since 2012, the level of activity has increased with large seismic and drilling programs spanning multiple years. An analysis of the General Ledger for the relevant years shows discrepancies between the (EoY) accruals and their reversal in the following year:

Table 21-1 Summary of accruals and reversals

	Accrual Reversal from Previous year ($)	EoY Accrual ($)	Difference from previous year ($)	Mitigations ($)	Remaining discrepancy ($)
2012	$0	$5,822,658	-	-	-
2013	($5,822,658)	$0	-	-	-
2014	$0	$1,340,972	-	-	-
2015	($1,332,972)	$31,444,256	$8,000	$2,000(1)	$6,000
2016	($31,500,256)	$75,178,369	($56,000)	($36,000)(2)	($20,000)
2017	($74,973,642)	$94,814,113	$204,727		$204,727
2018	($94,814,113)(3)	-			
Total	**($208,443,641)**	**$208,600,368**	**$156,727**	**($34,000)**	**$190,727**

Note 1: The Audit investigation has shown that in 2015 a $2,000 intercompany transaction was misclassified as accrual.
Note 2: Offsetting transactions identified accounting for $36,000
Note 3: Accrual reversals/transactions for this amount should be found in 2018 accounts

- The difference noted in 2015 was caused due to a misclassification of an intercompany transaction as an accrual. The supporting documentation provided for the intercompany transaction only amounted to $2,000 and did not reconcile with the General Ledger entry. Therefore, Audit Team recommends $6,000 be removed from the Cost Bank.
- Offsetting transactions were identified for $36,000 of the $56,000 difference noted in 2016. However, no offsetting transactions were identified for the remaining $20,000. Indicating the Cost Bank is potentially understated by this amount.
- The Audit Team requested EEPGL to identify the 2017 reversals for 2016 accruals within the General Ledger. EPPGL provided screen shots from their SAP accounting system as supporting documentation. However, the Audit team have not been able to locate the relevant 2017 reversals within the General Ledgers. Therefore, the Audit Team recommends $204,727 be removed from the Cost Bank for 2017.
- For End of Year 2017, a total of $94,814,113 has been identified as accruals within the General Ledger. The Audit Team requested EEPGL to identify reversal of the accrual entries in 2018. EPPGL provided screen shots from their SAP accounting system as supporting documentation. Since 2018 falls outside of the scope of this audit, the Audit Team recommends that these reversals are verified when the 2018 costs are audited.

- A total discrepancy of $190,727 in accruals across the audit period should be removed from the Cost Bank.

22. Withholding Tax

The following section provides a summary of the review undertaken concerning transactions related to Withholding Tax.

For detailed review please see report titled 15. Withholding Tax.

- As per Article 15.11, the tax provisions in the PSA provide that no income tax is to be levied on EEPGL or its Affiliate Companies on interest or profits or dividends or remittances by Guyana branches up to their holding companies.
- For the purposes of supply of goods and services, Article 15 places Affiliate Companies in the same platform as sub-contractors, refer Art 15.10 for applicability of Withholding Tax (WHT).
- WHT payments are exempted in Exploration Areas however are required for Development or Production Areas as defined within the Production License.
- EEPGL is tasked with remitting WHT on behalf of the Vendor/Affiliated Companies who are providing services to EEPGL within the Stabroek Production License Area.
- EEPGL has negotiated contracts with uplifts in them when WHT applies. This means that there is little or no benefit to GoG but vendors may be able to befit from a tax deduction in their home countries without reducing the revenue they receive.

23. Annual Overheads Charges

Annual Overhead (OH) are charges intended to cover a broad scope of organizational services rendered outside of Guyana which are not otherwise reflected in the General Ledger/Cost Bank. The Audit Team have reviewed the values submitted in the SE&Rs and confirm they do not exceed the permitted amounts as defined in the PSAs.

Appendices

Appendix 1 – List of Contracts Reviewed

Table A1-1 The list of contracts selected for detailed review

Note: Yellow cells indicate audit observations, requiring justification from EEGPL.

Vendors	2014 $ million	2015 $ million	2016 $ million	2017 $ million	Total $ million	Obs #	Summary Observations
STENA CARRON DRILLING LTD	-	-	74.1	78.5	152.6	1	Contract reviewed, Invoices as per scope, invoices verified.
SCHLUMBERGER GUYANA INC	-	20.0	49.0	64.0	133.0		Contract reviewed, Invoices as per scope, invoices verified.
CGG SERVICES UK LTD	-	42.4	27.3	-	69.7	3	Contract reviewed, Invoices as per scope, invoices verified.
TRITON NAUTILUS ASSET LEASING GMBH	-	51.6	0.1	-	51.6	1	Contract reviewed, Invoices as per scope, invoices verified. Rig contract split, DWC rig owned by Transocean supplied by Triton. Done possibly for tax reasons. Single source contract at high rates.
SAIPEM LTD	-	-	-	46.0	46.0	4	Contract reviewed, Invoices as per scope, invoices verified. Milestone 39 not accrued for work done. Details required for 3 invoices higher than contract milestones value of US$2.8m to be justified.
FMC TECHNOLOGIES INC	-	-	-	38.6	38.6		Contract reviewed, Invoices as per scope, invoices verified.
TRANSOCEAN OFFSHORE DEEPWATER DRILLING INC	-	35.4	-	-	35.4	1	Contract reviewed, Invoices as per scope, invoices verified. Rig contract split, crew for the rig DWC supplied by Transocean. Single source contract at high rates. The combined split rates were higher than the single rate achieved by ExxonMobil in the previous contract.
HALLIBURTON GUYANA INC	-	-	7.5	21.7	29.2		Contract reviewed, Invoices as per scope, invoices verified.
SINGLE BUOY MOORINGS UK LTD	-	-	-	26.9	26.9		Contract reviewed, Invoices as per scope, invoices verified.
SOL GUYANA INC	-	4.5	7.5	14.8	26.7		Sample invoices were reviewed against the contract T&C and the GL cost recovery transactions for the relevant years and no observations or exceptions were noted.

Vendors	2014 $ million	2015 $ million	2016 $ million	2017 $ million	Total $ million	Obs #	Summary Observations
BAROID TRINIDAD SERVICES LTD	-	-	-	26.0	26.0	2	Contract reviewed, Invoices as per scope, invoices verified. Contract A2532451/ A2490026 reviewed with its amendments. Reimbursable invoice $772k had no scope and service details available for review.
BAROID TRINIDAD SERVICES LIMITED	-	8.5	14.0	-	22.5		Contract reviewed, Invoices as per scope, invoices verified. Contract A2532451 reviewed with its amendments.
CGG SERVICES US INC	-	-	12.3	4.0	16.3	3	Contract reviewed, Invoices as per scope, invoices verified.
PGS EXPLORATION UK LTD	-	-	-	15.5	15.5	6	Contract reviewed, Invoices as per scope, invoices verified.
NAUTICAL VENTURES UK LTD GUYANA	-	-	-	14.6	14.6	7	Contract reviewed, Invoices as per scope, invoices verified. Invoices total US$454k and are raised for Fuel & Water auditor inspection which may be outside the scope of the contract
NAUTICAL VENTURES UK LTD	-	-	14.2	-	14.2	7	As above
BRISTOW HELICOPTERS INTERNATIONAL	-	-	-	12.9	12.9		Contract reviewed, Invoices as per scope, invoices verified.
HORNBECK OFFSHORE OPERATORS LLC	-	0.0	5.7	6.3	12.0	8	Contract reviewed, Invoices as per scope, invoices verified. $250,000 was paid as per contract for tank modification fee. This scope seems to be part of the vendors responsibility.
BRISTOW HELICOPTERS INTERNATIONAL LTD	-	-	11.6	-	11.6		Contract reviewed, Invoices as per scope, invoices verified.
TECHNIP UMBILICALS INC	-	-	-	11.4	11.4		Contract reviewed, Invoices as per scope, invoices verified.
FUGRO GEOSURVEYS	-	-	-	10.7	10.7		Contract reviewed, Invoices as per scope, invoices verified.
HORNBECK OFFSHORE SERVICES LLC	-	9.2	-	-	9.2		See above
FUGRO GEOSERVICES INC	-	-	8.4	0.0	8.4		Invoices as per scope, invoices verified.
GUYANA ENERGY SUPPORT SERVICES INC	-	1.0	1.3	5.8	8.1		Contract reviewed, Invoices as per scope, invoices verified.
OCEANEERING SERVICES OVERSEAS LTD	-	2.1	2.2	3.5	7.8		Contract reviewed, Invoices as per scope, invoices verified.
CORE LABORATORIES LP	-	0.9	1.9	4.1	6.8	11	Contract reviewed, Invoices as per scope, invoices verified.
OIL STATES INDUSTRIES	-	-	-	6.5	6.5	5	Contract reviewed, Invoices as per scope, invoices verified.
FRANKS INTERNATIONAL TRINIDAD UNLIMITED	-	1.0	5.5	-	6.4		Contract reviewed, Invoices as per scope, invoices verified.

Vendors	2014 $ million	2015 $ million	2016 $ million	2017 $ million	Total $ million	Obs #	Summary Observations
TIDEWATER MARINE INTERNATIONAL INC	-	5.6	-	-	5.6		Contract reviewed, Invoices as per scope, invoices verified.
AGILITY PROJECT LOGISTICS INC	-	4.1	1.4	-	5.5		Contract reviewed, Invoices as per scope, invoices verified.
NATIONAL HELICOPTER SERVICES LIMITED	-	5.1	-	-	5.1	9	Contract reviewed, Invoices as per scope, invoices verified. As such the amount of $1,604,544 is allowable only subject to justification by EEGPL, as payment being in excess of market rates
TIGER TANKS TRINIDAD UNLIMITED	-	2.1	3.0	-	5.1		Contract reviewed, Invoices as per scope, invoices verified.
FRANKS INTERNATIONAL TRINIDAD UNLIM	-	-	-	4.7	4.7		Contract reviewed, Invoices as per scope, invoices verified.
RPS EVANS HAMILTON INC	-	-	-	4.3	4.3		Contract reviewed, Invoices as per scope, invoices verified.
BAKER HUGHES TRINIDAD LIMITED	-	3.4	0.8	-	4.3		Contract reviewed, Invoices as per scope, invoices verified.
CHAGTERMS TRINIDAD LTD	-	-	-	4.1	4.1		Contract reviewed, Invoices as per scope, invoices verified.
CHAGTERMS TRINIDAD LIMITED	-	-	4.0	-	4.0		Contract reviewed, Invoices as per scope, invoices verified.
WEATHERFORD TRINIDAD LTD	-	1.0	1.8	0.8	3.5		Contract reviewed, Invoices as per scope, invoices verified.
FUGRO MARINE GEOSERVICES INC	-	-	-	3.5	3.5		Contract reviewed, Invoices as per scope, invoices verified.
SBM OFFSHORE USA INC	-	0.3	3.0	0.2	3.5		Contract reviewed, Invoices as per scope, invoices verified.
TECHNIP USA INC DBA GENESIS NORTH AMERICA	-	0.1	3.0	-	3.1		Contract reviewed, Invoices as per scope, invoices verified.
RAMPS LOGISTICS LIMITED	-	0.0	2.9	-	2.9	10	Contract reviewed, invoices verified, Custom duty paid $651,864.91 to be justified for cost recovery.
QUAIL TOOLS LP	-	2.5	0.1	0.1	2.7		Contract reviewed, Invoices as per scope, invoices verified. Single source award
MODEC INTERNATIONAL INC	-	0.3	2.3	0.1	2.7		Invoices verified.
CORPRO INC	-	-	1.0	1.6	2.6		Contract reviewed, Invoices as per scope, invoices verified.
TIGER TANKS TRINIDAD UNLTD	-	-	-	2.5	2.5		Contract reviewed, Invoices as per scope, invoices verified.
RPS EVANS-HAMILTON INC	-	0.1	2.4	-	2.5	12	Contract reviewed, Invoices as per scope, invoices verified.
RAMPS LOGISTICS LTD	-	-	-	2.5	2.5	8	Contract reviewed, invoices verified, Custom duty paid $651,864.91 to be justified for cost recovery.
RPS GROUP INC	-	-	-	2.2	2.2		Reviewed, Invoices as per scope, invoices verified.
TECHNIP USA INC DBA GENESIS NORTH	-	-	-	2.0	2.0		Reviewed, Invoices as per scope, invoices verified.
GUYANA DEEP WATER OPERATIONS INC	-	-	-	2.0	2.0		Reviewed, Invoices as per scope, invoices verified.
TANKS A LOT INC	-	-	0.8	1.1	1.9		Reviewed, Invoices as per scope, invoices verified.
ENVIRONMENTAL RESOURCES MANAGEMENT	-	-	-	1.8	1.8		Reviewed, Invoices as per scope, invoices verified.

Vendors	2014 $ million	2015 $ million	2016 $ million	2017 $ million	Total $ million	Obs #	Summary Observations
GUYANA DEEP WATER OPERATIONS	-	-	-	1.8	1.8		Reviewed, Invoices as per scope, invoices verified.
GEOLOG INTERNATIONAL B V	-	-	1.2	0.6	1.7		Reviewed, Invoices as per scope, invoices verified.
VETCO GRAY LLC GUYANA BRANCH	-	-	-	1.6	1.6		Reviewed, Invoices as per scope, invoices verified.
FIRCROFT GUYANA INC	-	1.0	0.4	0.1	1.5		Reviewed, Invoices as per scope, invoices verified.
MOKESH DABY	0.3	0.3	0.3	-	0.9		Reviewed, Invoices as per scope, invoices verified.
CYRILS TAXI SERVICE	0.0	0.2	0.4	-	0.7		Reviewed, Invoices as per scope, invoices verified.
BAKER HUGHES TRINIDAD LTD	-	-	-	0.6	0.6		Reviewed, Invoices as per scope, invoices verified.
CHECK 6 INC	-	-	0.5	-	0.5		Reviewed, Invoices as per scope, invoices verified.
2H OFFSHORE INC	-	0.3	-	0.1	0.4		Reviewed, Invoices as per scope, invoices verified.
SCHLUMBERGER TECHNOLOGY CORPORATION	-	0.2	0.1	-	0.3		Reviewed, Invoices as per scope, invoices verified.
STICHTING MARITIEM RESEARCH INSTITUUT NEDERLAND	-	-	0.3	-	0.3		Reviewed, Invoices as per scope, invoices verified.
STAG GEOLOGICAL SERVICES LIMITED	-	-	0.2	-	0.2		Reviewed, Invoices as per scope, invoices verified.
BEHARRY AUTOMOTIVE LIMITED	-	-	0.1	-	0.1		Reviewed, Invoices as per scope, invoices verified.
GRAND TOTAL	**0**	**203**	**272**	**450**	**926**		

IHS Markit Customer Care

mailto:CustomerCare@ihsmarkit.com

Asia and the Pacific Rim

Japan: +81 3 6262 1887

Asia Pacific: +604 291 3600

Europe, Middle East, and Africa: +44 1344 328 300

Americas: +1 800 447-2273

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