SELINUS UNIVERSITY
OF SCIENCES AND LITERATURE

AUDIT OF GOVERNANCE IN CRUDE OIL RESEARCH IN AN OPERATING OIL FIRM FROM THE STAGE OF EXPLORATION TO THE PROCUCTION STAGE UNDER A SEDIMENTARY BASSIN ANALYSIS

CASE STUDI OF THE NATIONAL OIL COMPANY IN CONTRACT WITH A DRILLING CONTRACTOR

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A

- MY FATHER BOTAYEKE François and MY MOTHER Jeanne MOBENDZA
- Mon SPOUSE BOTAYEKE MOBENDZA née NGALEBAYE Inès;
- My children’’Joyce, shekina, Holy and winner’’

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Sigles et acronyms

AG : Assemblée Générale

API : American Pétrolieum institute

ARO : Analyse des risques opérationnels

CA: Board of administrators

CTR: Casing Tubing Running

COSO: Committee of Sponsoring Organizations of the Treadway Commission

GM: General Managers

HSE: Helth safety and environnement

HPC: High potential computing

IFACI: French institue of audit and internal control

IIA : International Institute of Auditors

OPEP : Organisation des Pays Exploiteurs de Pétrole

SNPC : société nationale des pétroles du Congo ‘’ oil national company

MWD: messeare weight Deph

DFA : Dowhole fluid

GPS: Global positionning system

NFT: Normal funtionning Time

OT: Opening Time

BUSINESS CONCEPTS DEFINITIONS

Work Nature unit: allow to distribute charges with respect to general crterias such as the Firms employees' number, the past hours on the projet.

Used in nalytical accounting for charges ventilation on a set of unities.

Work order: in an indefinite quantity er: an individually negociated document that is performed by both parties and wich authorizes a project, if any, in an indefinite quantity contract.

Statement of work: the description of activities performed in completing the project, as specified in the contract and as may be amended.

Document specifying without limitation, the scope, objective, and timeframe of the work.

Projet plan: the document developed by the contractor and approved by the bidder based on the requests of the contract and preliminary project plan included in the contract bid.

The project plan may be changed, modified during the course of the project.

Work schedule: The approved order on timeline for how the requirement of this contract, including work on individual units or groups of units, will be fulfilled by the contractor.

The change management: the planning and introducing of new process, methods of working, in a company or organization.

Geoscience:

Analyse des risques Opérationnels

The operational risks is a risk pratical anakysis tool, that is dedicated to analysis industrial risks in funtion of consecutive work steps.

The hazards register

The hazard register is a tool that allow to transcribe all the hazars noticed on a site or on a scene determined.

The corrective actions Register

Is a tool used in consequence of the hazard register, for solving the hazards registerd?

It allows the actions to undertake to correct the hazard noticed... At this point,i twill contain the names of all the departement responsibles seemingly capable to correct those hazard.

Level or gravity or risk scale

This matrix is a tool which class the incidents and accidents according to determined definitions criterias qualifying thus the event so as to allow its graduation in a board that aligns and mocate in a order of 1 to 5

Thre can ve minimize, moderated major or catastrophic.

1 **The operational risks analysis comitee meeting**

It servves for assessing after each campaign, the activities l'activité accrording to the various campaigns stages, and associated risks.

2 The operation start meeting

It's a meeting that takes place on sites in order to analyse all the risks that are present on the site and the environnemental community.

3 Opeartional audit

It is compulsary stage of sites audit that that concerns with determining the sites hazards, and dangers in order to bring corrective actions before lanching the oil operation.

1.

Le processus opérationnel

2. OIL OPERATION PROCESS

The drilling operations are carried in three stages.

Each stage consist in putting casings on casing after individual determined meters.

stage n°1

It consists with making a tubage called comumn

- **stage n°2**

It's called technical column

- **Phase n°3**

3. L’appareil de forage

It is an equipement that is dedicated to drill onshore or offshore wells.

It oprates generally far away from the town.

With distinguished power from 650 horse power for 1000 t 1500 meters

1300 horse power for drillig rigs going to 2000 à 4000 Meters.

3000 horse power,for drilling Rigs wich go from 6000 to 8000 meters

5 to 6000 horse for drillling equipements carring out wells in far reaching kilometers of an average of 10 000 meters …

The first link the equipement have with the biodiversty is the earth, where a drilling rig has to be installed.

It takes us to its presentation structure from the basis to the upper Last Tour.

Après juste la sommité de l’antenne, nous avons à un niveau donné, la passerelle d’accrochage.

- The monkey Board is locate up the Mast. Where there is an operator chaged to stack the pipes and tubings in an elevator called Travelling Block.
- This plateforme help take tubing from a upper level while sanding and handling Tubings….to take it to the the rotation table where every tool enter the well.

Once connected the Driller the chief at the piloting cabin position, pilote the commnands and drive te tubings and others oil tools dedicated to the well inside the wells.

Ces garnitures constitués des tubings, pipes et bien d’autres pièces (devices), après avoir été descendu pour le nettoyage du puits, vont donner lieu aux opérations de complétion.

The completion societies are companies dedicated to complete the drilling operation bylayind down the production bottom hole Tubing that will serve for a supposed permanent production on condition that the well doesn’tr require a worover to clea or maintain it.

- **THE HOISTING SYSTEM**

It’s a pouli system allowing to take up and down the tubing or the bottom hole assembly... It’s made of a derrick. The derrick alow for the stoking of tubing during the bottom whole assembly up and down movement.

The drawork has a huge importance, to wind up and unwind the drilling cable by his rotative and hoistion movements.

It takes up and down the Tools and, Materials and drilling equipements.

Drilllig Tongs are two bi hands servind to screw and unscrew the tubings.

- **THE ROTATION SYSTEM**

L’outil qui fore la roche est appelé trépan. Elle est faite en diamant, et à une forme sphérique. Il est fixé sur une tige qui s’étend jusqu’en surface. It’s this bottoom hole assembly which help reach the reservoir that varies from 1000 to 2500 meters for des land wells, and from 5000 to 10000 meters for offshore wells...

A tool called bit, drill the rocks under the effetcs of a motrice force that drive it qui in arotary sens desired accordinf to the direction desired taking to the forseen reservoir to drill.

However on the the top of the bottom hole assembly is place a tool calle top drive système; this tool place on the top weghs tons. Its role consists in appling motrice which drive all the bottom all assembly till the reservoir or through the formation to cross.

Le système de circulation de fluide

This system hlep inject the drilling mud through the tubing or Bottom hole assembly.

Linking the Mud tank and the to the Top Drive. IT helps to maeke permeable the rocks and make of a Barrier against the gaz venues that can cause explosion or a serious sinister.

Le système de contrôle de puits

The bojective of the well control is to send the mud as a first Barrier in order to prenvent the gaz venues ;

Other equipements such as the blow out preventer also play the same prevention role.

Le système de génération de puissance

Power system is the vital function of all the installation system on the Field ;

Without power, there is no operations possible to carry out.

So, the fille has a switch control room, some generators, a living camp electrical scircuit and a Mini camp electrical circuit.

Electrical circuit of relating equipements.

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LIST OF CHAPTERS

Section 1 shape 1 IMPERFECT GOVERNANCE SHAPE AS REGARD THE ORGANISATIONAL AND FUNCTIONAL ORDER OF AUDIT STATUTORY

CHAP VI THE STANDARD AUDIT STEPS ON JOINT VENTURE AGREEMENT

CHAP VI

Section 1:FIGURE D'UNE GOUVERNANCE D'ORDRE ORGNISATIONNEL ET FONCTIONNEL

CHAP VII

Section 2: THE BOARD OF NON COMPLIANCE AND RECOMMANDATIONS OF THE TYPE OF AUDIT AND CONTROL

CHAP VIII THE ROLES ND MISSIONS OF EACH CONTROL ORGAN FROM THE PARENT COMPANY TO THE SUNSISIDIARIES

CHAP VIII Section 1: THE BOARD OF DIRECTORS

CHAP VIII SECTION 1.1 AUDIT COMITEE

CHAP VIII Section 1.2 PARENTS'S COMPANY INTERNAL AUDIT (HOLDING)

CHAP VIII Section 1.3 THE SUBSIDIARIES INTERNL AUDITORS

CHAP VIII Section 1.4.1: THE INTERNAL CONTROL

CHAP VIII Section 1.4.2: THE INTERNL CONTROL FOR A GOOD GOVERNANCE

CHAP VIII Section 1.4.3: THE INTERNL CONTROL FOR A GOOD GOVERNANCE AND FINANCIAL RELIABILITY

CHAP VIIII THE MANAGEMENT ACCOUNTING

CHAP VIIII THE section 1: COMPLIANCE ASSESSMENT TABLE OF THE MANAGEMENT ACCOUNTING PRACTICES

CHAP VIIII section 2: THE MAIN DIRECTIVE LINES OF THE ACCOUNTING MANAGEMENT

CHAPVIIII section 3; THE MASTERY OF THE COSTS STRUCTURE

CHAPVIIII SECTION 4: PARENTS COMPANY AND SUBSIDIARIES COST'S STRUCTURE

CHAPVIIII Section 5: COSTS STRUCTURE TABLE MODEL OF ADRILLING COMPANY BID RESPONSE CONTROLED BY THE HOLDING COMPANY HANDLING IN PACKAGE PRATION

CHAP VIIII section 6 THE GOVERNANCE CONTROL METHOD OF PACKAGE OPERTIIONS SALE PRICE

CHAP VIIII section 7: PACKAGE OPERATIONS SALE PRICE GOVERNANCE CONTROL THROUGH DAILY CONSUMING EXPENSIES.

CHAP VIIII section 8: SYNOPTIC CONTRACT FOR WELL DRILLING

CHAP VIIII section 9: A BUSINESS ANALYTICAL ACCOUNTING

CHAP VIIII section 10: THE REFERENCE BASIS OF OPERATIONS CONTROL

CHAP VIIII section 11: MOVING COSTS SCHOLASTIC SURVEY

CHAP VIIII section 12: OPERATIONS SALE PRICE SET UP

CHAP VIIII section 13: THE USE OF EXRTERNAL PERSONAL AND THEY DAILY COSTS

CHAP X: DAILY AND SALE COSTS DETERMINATION OF THE VARIOUS ACTIVITIES RESULTS

CHAP X section 2: CONTROL ACCOUNTING PRIORITY ORDER

CH CHAP X section 5: REFERENCE MARKET PRICES

CHAP XI section 1: COSTS CONTROL STRUCTURE TABLE MODEL OF DRILLING SUBSIIARY BID RESPONSE BY THE HOLDING IN PROJECT WITHOUT PACKAGE.

CHAP XI section 2: COST CONTROL STRUCTURE BUDGET TABLE MODEL

CHAP XII: section 3: PRODUCTION SUBSIDIARY OPERATIONAL COSTS STRUCTURE

CHAP XI section 5: THE MAIN PARTNERS COST CONTROL STRUCTURE MODEL

CHAP XI section 6: THE TAX UDIT OF PARTNERSHIPS

CHAP XI section 6.1 THE SHARE OPF PARTENERSHIP NET PROFIT

CHAP XI 6 section.2 THE AUDIT OF SPECIAL DEDUCTION FOR TAX RETURN PARTNERS

CHAP XI: PARTNERSHIP ACCOUNT CONTROL

CHAP XI: TABLE OF COSTS CONTROML STRUCTURE MODEL FOR ASSOCIATES PARTNERS

CHAP XI section 7: BUILDING OF CORPORATE FINANCIAL MODELISATION

CHAP XII section 1: INVESTMENT SENSITIVITY ANALYSIS

CHAP VII section 2: DIFFERENTIAL SENSITIVITY ANALYSIS TABLE

CHAP XII section 3: ECONOMIC EFFETS OF CHANGE RATE

CHAP XII section 4: ECONOMIC EFFECT OF UNIT RAW MATERIALS FLUCTUATION

CHAP XII section 5: FINANCIAL INVESTMENT RISKS ASSESSMENT

CHAP XIII BUSINESS FINANCIAL CONTROL

CHAP XVIII THE STOCKLDER’S EQUITY

CHAP XIII SECTION CONDITION TO CONTROL THE BANK LOAN IN STAND BY BY PERIOD

CHAP XIII section 3 ANALYSIS OF THE BEGINNING OF OPERATION

CHAP XII section 4: FINANCE MANAGEMENT IN STAND BY WHILE WAITTING FOR THE LANCHING OF OPERATIONS

CHAP XIII section 5: FINANCIAL INVESTMENT RUSK ASSESSMENT TABLE

CHAP XIII section 6: CAPITAL COSTS CONSIDERING THE STAND BY BY LENGH BEFORE OPERATIONS

CHAP XIII section 7: MONTHLY BUSINESS PLAN CONTROL IN STAND BY

CHAP XIII section 8 :

CHAP XIII section 9: BFR OPERATING CONTROL IN STAND BY PERIOD LANCHING THE OPERATIONS

CHAP XIIIII section 10: MASTER OF BASIC OPERATIONAL TARIFF TO SELL

CHAP XIIIII section 11: THE OPERATIONS COS MANAGEMENT MODEL OF A DRILLING CAMPAIGN

CHAP XIIIII section 12: COSTS CONTROL STRATEGY BY THE GOVERNANCE

CHAP XIIIII section 13: SALE PRICE CONTROL STRATEGY

CHAP XIIIII section 14 : CALCUL DU FR EN PERIODE REGULIERE DES OPERATIONS

CHAP XIIIIII section 15: THE OPTIMISATION OF THE ASSETS DEPRECIATION

CHAP XIIIIII section THE IMPORTANCE OF THE ASSET DEPRECIATION AWARENESS

CHAP XIIIIII section 1.1: THE FUNDAMENTAL COMPUTATION OF ASSETS DEPRECIATION

CHAP XIIIIII section 1.1 DECLINING DEPRECIATION

CHAP XIIIIII section 1.1.2 THE ANALYTICAL OPTIC OF DEPRECIATION IN OIL BUSINESS

CHAP XIIIIII section 1.3 THE CONVENTIONAL RATE

CHAP XIIIIII section 1.4: THE PRATICAL USE OF DECLINING RATE USE

CHAP XIIIIII section 1.5: THE DRILLING RIG DEPRECIATION METHOD

CHAP XIIIIII section 1.6: THE DRILLING RIG DEPRECIATION DEPENDING ON THE NATURE OF THE CAMPAIGN

CHAP XIIIIII section 1.7: A RECOMMANDED STRAIGHT LINE DEPRECIATION

CHAP XIIIIII section 1.8 YEARLY WOROKOVER CAMPAIGN DEPRECIATION

CHAP XIIIIII section 1.9 YEARLY INTERCHANGEABLE OPERATION DEPRECIATION

CHAP XIIIIIISection 2: THE DAYLY DEPRECIATION COSTS AS A CONTROL ASSET DEPRECIATION TOOLS.

CHAP XIIII Section 2: 1 THE DESAVANTAGES OF THE AWARENESS OF THE ULTRA DEPRECIATION OF DRILLING RIGS

CHAP XIIII Section 2: 2 THE AVANTAGES OF THE AWARENESS OF THE ULTRA DEPRECIATION OF DRILLING RIGS

CHAP XIIII Section 2: 3 DECTREASE OF THE TAXABLE PROFIT BY A HIHGER ASSET DEPRECIATION THAN THAT OF SHA INFORMATION SYSTEL CONTROLPE 1.

CHAP XIIII Section 5: THE ESTIMTE CHANGE ACCOUNTING METHOD

CHAP XIIII Section 6: ULTRAT INTENSE ACTIVITY LAST YEARS OF THE PROJECT (year where the depreciation computation is still in linear mode)

CHAP XII III ISection 1 INTERNAL CONTROL RECOMMANDED IN JOINT VENTURE

CHAP XIII II ISection 2 INTERNAL CONTROL IN BUSINESS TO BUSINESS

CHAP XIII II I Section 3 REQUIRED CONDITIONS MONOTORING THE MOVING COSTS

CHAP XII III I Section 3.1 THE REQUIREMENTS BOOK

CHAP XII III ISection 1 INFORMATION SYSTEM CONTRLOL

CHAP XIIIII Section 2: THE IN DEPH COST CONTROL

CHAP XIIIIII Section 2 .1 OVERVIEW OF A PART AND A SYTEM LINK

CHAP XIIIIII Section 2 .2 OVERVIEW OF SEVERAL EQUIPEMENTS PARTS WITH THE GMAO SYSTEM

CHAP XIIIIII Section 3. THE ANALYTICAL OBJECT CALL

CHAP XIIIIII Section 4. THE GMAO IMPLEMENTATION

CHAP XIII III Section 5. THE ASSET IDENTIFICATION AND THE DEFINITION OF THE NOMENCLATURE (INSTALLATION DECOUPAGE)

CHAP XIIIIII Section 6.THE CODIFICATION AND THE NOMINATION OF VARIOUS EQUIPEMENTS

CHAP XIIIIII THE SYSTEM ANALYSIS PROGRAM IIMPLEMENTATION MPORTANCE

CHAP XIII IIII I THE OIL CHAIN VALUE DEFINITION

CHAP XII II III Section 1: THE SISMIC SURVEY

CHAP XIII II II Section 2: THE GEOPHYSICS

CHAP XIII II II Section 3 THE GEOSCIENCE

CHAP XII II III Section 4: THE DRILLING EXPLORATION

CHAP XIII II II: PRIMORDIALE CONDITIONS FOR THE SUCCES OF A WELL DRILLING CONTAINING HYDROCARBONS

CHAP XII II III section 1: THE SUCCES OF A STRATIGRAPHIC LOG

CHAP XII III II: SECTION 2: PRATICAL AND TRADITIONAL TOOLS FOR FINDING OUT THE HYDROCARBONS PRESENCE SO CALLED

CHAP XI III III section 3: THE MEASURE WEIGHT AND DEPH JOB

CHAP XIII II II section 4: THE DIAGRAPHY GAMA RAY SHEME

CHAP XIII II II section 4.1 THE CLAY VOLUME AS SUBSTANCIAL INDICIS OF HYDROCARBONS PRESENCE

CHAP XI III III section 5: THE DRILLING CUTTINGS CATCHING

CHAP XIII II II section 6: THE GAZ ANALYSIS

CHAP XIII III I section 7: THE THE ULTRASONIC TOOL

CHAP XII III II section 8: THE STRATIGRAPHIC LOG DESEIGN

CHAP XIII I III section 9:

CHAP XIII II II section 10: IMAGE OF A COMPLETE STRATIGRAPHIC LOG DESEIGN

CHAP XII I IIII section 11: HEIGHTENING A HIGHER PROBABILITY OF DRILLED WELLS

CHAP XII II III section 12: THE CHARACTERISTICS OF THE GEOLOGIC FACTORS

CHAP XI IIII II section 13: THE FORMATION POROSITY ASSESSING

CHAP XI III III section 14: THE FORMATION POROSITY ASSESSING

CHAP XI I I I I I I section 15: THE FORMATION PERMEABILITY ASSESSING

CHAP XI I I I II I I THE DRILLING EXPLORATION AND OPERATIONAL GEOSCIENCE STAGES

CHAPXI I I I II I I section 2: THE WELL DRILLING APPRAISAL

CHAPXI I I I II I I section 3: THE WELL DRILLING DEVELOPPEMENT

CHAP XI I I I II I I I section 1: THE OPERATIONAL CHAIN VALUE STRATEGY GUIDELINES

CHAP XI I I I II I I I section 2: COMMENTARIES ON OPERATIONAL STRATEGIES

CHAP XI I I I II I I I section 3: THE BAD WELL CONTROL

CHAP XI I I I II I I I SECTION 4. THE DIFFERENTIAL STICKING PROBLEMS IN DRILLING OPERATIONS

CHAP XI I I I II I I I section 4:1 THE DIFFERENTIAL STICKING ORIIENTED SOLUTIONS

CHAP XI I I I II I I I section 5: THE OVERPULL APPLICATION FORMULA

CHAP XI I I I II I I I section 5:1: COMPUTRE THE STICKING PRESSURE

CHAP XI I I I II I I I section 7: THE TARGET OF DRILLING POINT COAST

CHAP XI I I I II I I I section 8: THE ULTRASONIC TOOLS

CHAP XI I I I II I I I section 9: THE IMAGE OF A COMPLETE STRATIGRAPHIC LOG

CHAP XI I I I II I I I I: PRECAUTIONS TO TAKE IN ORDER TO HAVE A SUCCESFULLY WELLS DRILLED WITH COSTS MINIMISATION

CHAP XI I I I II I I I I: section 1: THE OPERATIONAL AUDIT TO DETERMINE THE REASONS OF DRY WELLS

CHAP XI I I I II I I I I section 2: THE PARTENER RELIABILITY AUDIT IN EXPLORATION STAGES

CHAP XI I I I II I I I I: section 3: THE THE PARTENER OPERATIONAL AUDIT IN THE EXPLORATION STAGE

CHAP XI I I I II I I I I: section 4: THE PARTENERE MANAGEMENT AUDIT IN THE EXPLORATION STAGE

CHAP XI I I I II I I I I section 5: THE PARTENER FINANCIAL AUDIT IN EXPLORATION STAGE

CHAP XI I I I II I I I I section 6: THE GEOLOGICAL ERA SCALE

CHAP XI I I I II I I I I section 7: THE TECHNICAL REASONS OF THE COSTS INCREASE DURING EXPLORATION DRILLINGS

CHAP XI I I I II I I I I section 8: THE TECHNICAL REASONS OF OIL TRAP FAILURES

CHAP XI I I I II I I I I THE LACK OF INTEGRITY CHAIN

CHAP XI I I I II I I I I SECTION 1: THE HORIZONTAL WELLS

CHAP XI I I I II I I I I SECTION 2: THE DIRECTIONNAL DRILLING WELLS

CHAP XI I I I II I I I I I: THE GOVERNANCE PRECAUTIONS TO REINFORCE THE OPERATIONAL RESEARCH USEFUL TO REACH THE PRODUCTIVE RESERVOIR WITH CONTROLLED COSTS.

CHAP XI I I I II I I I I I SECTION 1: THE TRADITIONAL OF THE PROSPECTS‘s PORTOFOLIO

CHAP XI I I I II I I I I I SECTION 2: THE TRADITIONAL STRATEGY OF THE PROSPECTS PORTOFOLIO SURVEY POTENTIAL

CHAP XI I I I II I I I I I section 3: THE SKETCH PROSPECTS PORTOFOLIO SURVEY

CHAP XI I I I II I I I I I section 3.1: THE ORLY OIL FIELD APPRAISAL

CHAP XI I I I II I I I I I section 3.2: THE PLATEFORM ECONOMIC OUTPUT SURVEY

CHAP XI I I I II I I I I I section 3.3: THE PESTOL OIL FIELD APPRAISAL

CHAP XI I I I II I I I I I section 3.3: THE PLATEFORM ECONOMIC OUTPUT SURVEY (IN COMPARISON)

CHAP XI I I I II I I I I I section 4: THE PROSPECTS COSTS ANALYSIS COMPARISONS

CHAP XI I I I II I I I I I section 5: THE ELECTION FIELD BOARD

CHAP XI I I I II I I I I I section 6: THE ELECTION FIELD ECONOMIC PERFORMANCE ORDER

CHAP XI I I I II I I I I I section 7: THE RISKS BALANCE RIGHTS

CHAP XI I I I II I I I I I section 8: THE PROSPECTS ANALYSIS

CHAP XI I I I II I I I I I section 9: THE STRATEGIES FOR ADOPTING ECONOMICALLY PROFITABLE PROSPECTS

CHAP XI I I I II I I I I I section 9.1: THE SELECTION OF HIGHLY POTENTIAL COMPARED WELLS

CHAP XI I I I II I I I I I section 10: OIL RESEARCH MANAGEMENT AND OPERATIONAL PROCESS GOVERNANCE

CHAP XI I I I II I I I I I section 11: THE DISCOVERY OF HYDROCARBONS

CHAP XI I I I II I I I I I section 12: THE INTEGRITY VALUE CHAIN IN THE RESERVOIR SURVEY OF FIELD AND PROSPECTS

CHAP XI I I I II I I I I I section 13: THE CHARTFLOW

CHAP XI I I I II I I I I I section 14: THE CONGO BASSIN STRATIGRAPHIC MODEL

CHAP XI I I I II I I I I I section 15: THE MBOUNDJI FORMTION RESERVOIR

CHAP XI I I I II I I I I I section 16: THE TARGET OF THE OIL POINT COAST TRAP

CHAP XI I I I II I I I I I section 17: THE TABLE OF THE CONVERGENCE STAGES INTERPRETATIONS

ABSTRAITS

This oil research is one of the older, complex and extraordinary exercise on which men get involved and continue to invest in with much more precautious steps and rigor.

The research requirements leads technicians from all over the world where black gold is found to upstream explorations or land areas where geological formations which result in successful projects for some, and in failed projects for others under the form of dry wells.

The field of oil, as the field that condition major part of the individual activities and services products useful for men is for almost half century became a strategic product where multinational, national, nor private companies dare to get committed in adventure without a real governance.

All oil companies, or almost all, make the choice of good governance to pretend to reach the firm's growth and survival.

This corporate governance has became nowadays the first management pilot for its missions and go beyond the management wich is the relevant operational tool by any executive without compulsory implication and finality….network link between the authorities of an organization or of another professional interactive body.

The corporate governance encompasses the internal auditors, the audit comitee auditors, the internal control executives, and the responsibles of management accounting.

It creates a complementary link between the risk management, Audit, and the control organs, social and environnemental responsibility without ignoring the quality management.

In fact, those last decades have been marked by the recrudescence of unsuccessful exploration projetcs.

Those failures are the cause of huge leak of money of oil firms.

Those failures are revealed to be the cause of not only the operational technicians but fundamentally that of corporate governance that possess all the means to make Rightful business decisions.

Also, they own all the control organs edicted by professional standards on scientific basis which guarantee the control of financial informations

Especially since, the governance defines the general management framework of a business or of a group.It establishes the value and strategic foundation of a business.

Those governing directives provide the means to spot ourselves, to act, and to decide.

The thesis developed here on oil researches has been formulated under permanent observation of this modern time about multiple failed projects noticeable in Africa, where one observes that the critical thinking on dry wells consequences are in major part addressed to operational responsibles or technicians, what is true one part, but on the other hand, more and more blamed to the corporate governance.

INTRODUCTION

In effect, we come through this thesis to alert and awake the consciousness about the decisive steps taken for a very good governance enforceful on strategies, decisions and actions that could lead to get some human ressources and consequently technics and strategies adequately standardised to drill wells producing crude oil.

The oil research finds its origins since the project denominated ‘’DSDP’’ Deep sea drilling project,lanched in 1900 and dedicated to a real prospection of the sea undertaken with a boat known under the name of ‘’Global challenger’’

This prospection leads to the discovery of geophysic conditions of the sea, to multiple species population’s discovery which submarine environment host in its complex structure

Ninety six voyages of sea explorators crew resulted in to the discovery of the origins of oil established under the hypothesis of animal organs, in this case, the whales wich perish, decomposes and forms crude oil,

Under temperature and pressure conditions emerge at the end some diversified gas atoms among which oxygen, carbonic gas, the ethylene, the methane…

This crew dedicated his action during unusual periods for the survey of the submarine environment in its depth and its characteristics.

At the origin, formed in the recetacle of a mother stone, the oil is going to be trapped in a rock named ‘’reservoir Roche’’.

This long journeys at sea has led to the submarine hydrocarbons discovery

However, the sedimentary bassins of each country all cartography some identical lands and offshore geological formations, formed and transformed all along the scale of geological eras with the effect of the plate tectonic.

In this order of state of things, have been initiated the offshore and land oil exploration, whose the land exploration has been initiated lately.

In this regard, it’s clear that among the various exploration projects undertaken in oil fields all over the world, several researches, and all above recent researches managed have resulted in unsuccessful projects and caused the loss of colossal amounts of money.

Therefore, certain development and production drilings result in hydrocarbons venue on one hand, whereas on another they produce incoherent, and disintegrated data between the geologist, the directional drillers, and the operational drillers.

To this main subject, many questions can direct the streamline body of this subject and provide relevant problems-oriented solutions.

Which are the technical indicators which prevent an oil research success on an oil field, yet filled with hydrocarbons content from gushing out?

Which are the control organs of the business subjects to audit which seemingly cause to oil companies some dysfunction inputs, failures, hazards, and Business Risks?

Which are then the management tools to adopt and the competent human ressources to maintain the financial structure of the firm in a healthy balance to help conduct the project without economic asphyxia from the project inception to the end of the project?

What is the guarantee of the operational staff we recruit for those research and exploration drilling projects?

How ensure of the choice of prospects portfolio on which we commit ourselves, to create profit to the the company?

And to which technics to lean on to be able to have a good reading of stratigraphic structures?

In face of this recrudescent situation, the problem here is to formulate the question to know, how corporate governance can commit on challenging this crucial business situation, considering its grounding strategic base missions.

The response to this main question urge us to descend to details of all the matters incorporated into governance in order to depict the practical oil Business reorientations ,reorganizations and cropping.

Thus, through the development of this thesis, we are going to indicate the improvement tracks to take to build ‘’the good governance in oil firms operating in research and drilling firms’’

The development of this thesis will be based on governance research and exploration audit tracks, annexed to some regular hypothesis which shows the alleged standard practices for the use of all control and management tools.

Furthermore, we will focus on the operational synergy requirements all along the value chain that help gush out the crude oil in a drilling campaign.

End of the introduction

AIMS OF THE THESIS

This Thesis aims to provide governants with technical governance support helpful to foster:

- The optimization of governance of oil research and development companies in the increased rates of prospects discoveries and crude oil production.
- The relevant use of economic and accounting tools to supervise the micro, macroeconomic, and international environmental indicators.
- The optimization of governance consisting with increasing the control of costs invested in the hydrocarbons research production and exploration drillings
- The optimization of governance consisting with designing predefined and contextual strategies to find crude oil during exploration drilling.

OBJECTIVES OF THE THESIS

The objectives of this thesis are to provide Governants with:

- A relevant governance guidance for Managers, members or president of any board of administrators, especially for oil research in revealing the reasons of any dry wells drilled without success.

-A relevant operational control aimed at providing the control tools for supervising the production and exploration drilling operations in course of action in horizontal or vertical sens.

-The understanding of the control organs in various types of oil contrats, considering the complexity of the oil Business world and its particular transactions to control costs, generate profits and lead to the production of crude oil.

CHAPTERS

CHAP I: DEFINITION OF THE CRUDE OIL RESEARCH

CHAP II: THE RESEARCH AND OPERATING PERMITS

Section 1: REARSERCH PERMITS

The research permit is litterarily qualified as exploration permits.

Dans les faits, les travaux de recherche concerne :

In facts, research labors concern:

Sismic operations (otherwise called Geophysic)

The drilling explorations (which concern with drilling appraisal wells).

In this order of ideas, the missions or action plan of this firm are oriented in function of the nature of the permit that is granted by the host country.

In effect, the research activity is still lanched by a research and production firm .This company can be a national company acting as a national operator, or it can be a multinational transplanted or newly arrived in a host country, negotiating therefore an exploration permit.

This permit is going to define the intervention field.

The granted permits can be the one of a field that has not yet been object to sismic surveys.

In this case, the permit is granted by the host state.

It's about the reaserch operations for depicting the hydrocarbons presence, by specificly chosen technics among the various technologies existing in function of the formations and startigraphic models lithology found out since the first return of experiences.

Section 2: DEVELOPEMENT PERMITS

The permits granted can be that of a field where preleminary sismic surveys have already been achieved with positif results and those results would have been already allowed the establishment of a dataset (a set of geological data): when the permit granted will concern the objet so name " Development rights"

The developement drilling consists in the delimitation of a perimeter of a given field dedicated to prospection ,in order to depict some phisico chemical caracteritics of the zones of this perimeter on the basis of given resultats gotten during the drilling in terms of formation pressure factor and temperature ,volume factors.

CHAP III: THE VARIOUS OIL CONTRACTS

The oil research is an activity which leads to the establishment of agreements or partnerships of several types.

Basicaly, those partnerships for Which the models are forseen and made possible by the law of business and by the accounting models in compliance with international standards in their background and in their forms, also in the prevision of their clauses of contracts and rights provisions in any economic context, define the nature of contracts which regulate and standardize the achievement of all types of oil projects.

Considering a retro prospective synthetical overview, it exists seemingly five types of oil contracts, when one counts on an overall examination of the oil sector funtionning framework,

It concerns a research contract, a participation contrats, an oil share contract, Business contract, and services contracts.

CHAP III.1 RESEARCH CONTRACT

It's a form of contract by which the state entrusts to the multinational, the right to undertake research, development and operating works, on their own without its participation.

In this contratct state revenues are gotten through the tax return.

CHAP III.2 PARTICIPATION CONTRACT JOINT OPERATING CONTRACT

In effect,it's important to signify that one of the first type of contracts introduced in the year 1970 and 1980 by certain countries concerned by the contracts so name"contract of participation" from which the state on its own decide to participate in a partenership made of a principal partner.

In this form of contratc, the state assume the same rights and obligations, through its national company stockholder’s equity investment and its duties.

CHAP III.3 CONCESSION CONTRACT

In the concession contract, the state grants to the general partner an exclusive mininig title of exploration .For each commercial discovery, the state grants to the firms an exclusive operating and development mining title.

In this contract, the state revenues are obtained through tax.

Thus, the state has the right to:

Signature or production bonus

Superficiares royalties

Production (royalties)

Tax on the general partner gains.

Supplementary tax on super profits.

CHAP III.3 CONTRAT DE PARTAGE DE PRODUCTION

The state remains the only holder of the mining rights .Oil companies partners to oil projects are not holder of mining titles.

This contracts define on the basis of the Investment code of hydrocarbons of each country,a mode of computation consisting to take back the contractor investor costs oil,a mode of calcul des exces de petrol(excess oil),a mode f calcul of profit oil.

CHAPIII.4 BUSINESS CONTRACT

The business contract tangle between oil share contracts, in joint operating contract, in concession contracts.

In effect, those are contracts that link the general partner who can be the main operator (holder partener) or the state as main capital provider, with a contractor, notably a drilling contractor

CHAP III 5.SERVICE CONTRACT

Services contracts are signed by the drilling contractor with services companies which are assigned to provide services such as, catering services, facilities or equipements maintenance for specific or high technology, inspection services performed by specialised organisms, training and enabling societies to work on land and offshore.

Those services contracts can be also signed by the national oil company as an holding or by the production subsidiary as a company dedicated to the main production mission statement with a legal recommandation to operate as an operator with a contractor through the call upon service companies such as wireline services, fishing services,

CHA IV: DEFINITION OF RESEARCH GOVERNANCE AUDIT

CHAP IV 1-FUNDAMENTAL DEFINITION OF COMPANY GOVERNANCE

A corporate definition is a subject of interdisciplinary study concerning the power relations between public authorities, civil society and the market in a transformation context of the political community aptitudes to head over legally and to act effeciently (Rgau, the encyclopedic dictionnary of public administration).

This first definition of corporate governance definies governance from a public sector view in setting it as a set of pattern of rules governed by the centralized authority initiating and leading public reforms.

The term governance can be used specifically to describe changes in the nature and role of the state following the public sector reforms of the 1980 and 90s.Typically these reforms are said to have led to a shift from hierarchic bureaucracy toward a greater used of markets, quasi markets and networks;

The effects of these reforms were intensified by global changes, including an increase in transnational economic activity, and a rise of regional institutions such as the European Union.

So understood, governance expresses a widespread belief that the state increasingly depends on other organisations to secure its intention, deliver its policies, and establish a pattern of rule.

Therefore from the basis of this public governance developed here in after mentioned, it’s obvious to establish that the corporate governance derives its main principles from the public governance.

According to the encyclopedia Britannica, the corporate governance refers to pattern of rules within a business, that is, to systems, institutions, and norms by which corporations are directed and controlled.

So understood, governance expresses a growing awareness of the ways in which diffuse forms of power and authority can secure order even in the absence of state activity.

This general use of governance enables theorists to explore abstract analyses of the construction of social orders, social coordination, or social practices irrespective of their specific content.

This conceptul basis of governance re taken by the private and multinational companies define governance as ‘’ a set of pattern of rules providing the relevant standards to run scientifically businesses and to lead changes by reinforcing the line management cohesion.

Another definition defined is ‘’ ‘’

Is the first control organ by excellence because before the establishement, the consolidation and the improvement of power relations between the autorithies, it arouses first, the creation of all control organs.

It’s the hierarchical source of all control organs.

Its definition, its mission statement and its role assure an essential place whithout which no firm can achieve its goals.

CHAP IV 2-AUDIT OF COMPANY GOVERNANCE

From the famous definition of the audit by Anthony, according to which Audit concerns with making sure that the firm objectives are reached with efficacity and efficienty.

The audit is defined by Anthony as a subject by which managers assure themselves that the firms’ objectives are reached with efficacity and efficienty.

The encyclopedy Britannica defines it as patterns of rules or practices of governing.

The study of governance generally approaches power as distinct from exceeding the centralized authority of the modern state.

Therefore, considering Anthony governance definition, the audit of an oil company holding governance should examine the relevance of its main areas.

Those main ares encompasse politics, strategies, power relations, economic model and value chain; because the pattern of rules to implement for a good governance depend on the foundations of all those matters.

CHAP IV 2-1 THE AREAS OF OIL HOLDING GOVERNANCE

CHAP IV 2.1.1- Holding politics

POLITIQUES DU GROUPE	FAIBLESSE/HAZARDS	ACTIVITIES	Reference page or Tool Number	RECOMMANDATIONS
Strategic Framework letter	La non clairvoyance de la Réorientation stratégiques des opérations complexes en cours ou en necessité de stratégie de réorientation	**Strategic Reorientation** Susidiaries Autonomy Commercial objectives Operational objectives Management Change Management Human Ressources Management Promotion des actifs opérés et non opérés	Tool 1 Tool 2	into the busness'politics Budget preparation by declinaison des elements d'orientation du Budget;
Budgetary Framework letter **Business Law**	Insuffiscient Budget Forcast Excess Budget Forecast			
Cost control Framework and internal control	No cost control	Cost control	Tool 3	Master the operating charges Master the integrated packages services
Operationnal Framework lettre			Tool 4	Insert in the Holding politic the mastery of the operational inci operations
Holding reinforcement -strategic Maintenance politics with respect to	Insufficient relevant politics with respect to the economic model	Add to the Holding politics, the Holding Maintenance strategic politics	Tool 5	into the busness'politics

the holding economic model.		relating to holding economic model		

Section 2.1.1.1: **STRATEGIC FRAMEWORK LETTER**

Tool 1: **Reoientation strategic**
Liason Mode: Subsidiaries autonomies

Commercial objectives :

Operational Objective

Management strategy

Change Management

Personal Human Ressources Reinforcement

Promotion des actifs opérés et non opérés

CHAP IV Section 2.1.1.2: **BUDGETARY FRAMEWORK LETTER**

Tool 2.
1 **Préparation du Budget par declimaison des elements d'orientation Budget**

Thus, we have to elaborate a budget 2015 with a certain unkown numbers.
Real GVT compensation

Budget with certain unkwon numbers: Reference page

1

BUDGET 20	**BUDGET INITIAL 20**	**BUDGET REVISE 20**	**THE REALISED 20**	**CLOSE FORECATS 20**	**BUDGET INITIAL 22**

2

YTD	**BM5**		**GAP**	**% GAP**

INITIAL BUDGET	JANV	FEB	MARCH	1ST TERM	MARCH	APRIL	MAY	2nd TERM	JUNE	JULY	AGOST
									REVISED BUDGET		

CHAP IV: Section 2.1.1.3: **BUSINESS LAW VALUABLE IN OIL INDUSTRY**

PRINCIPAL DISCLOSURE IN AN AGENCY RELASHIONSHIP :

-Undisclosed principal :identity and existence is kept secret to a third party.The third party may hold eitheir the agent or principal liable in the case of an undisclosed principal.The agent is considered a contract party.

-Partialy disclosed principal : Third parties are not informed of the identity of the principal ; they are only informed of the existence of the principal

-Disclosed principal :The third parties are informed of the principal's sidentity when an agent acts on behalf of the principal.In cases of an agent without autorithorisation entering a contract in the name of a disclosed principal when the principal has not ratified the contract,the third party and the principal are not liable to each other.

The principal agent relashionship is a fiduciary relationship in wich the agent is granted some independent discretion and may take action for the principal in business transactions or bind the principal in contract with a third party.An agency can be entered into for legal purpose,but it is a consensual relationship rather than a contractual relationship.it's not necessary for consideration to be given to the agent from the principal.

Contractual capacity is not a requirement of an agent ; since an agent can enter into a contrcat on the behalf of the principal, à principal should have contractual capacity.

In an agency relationship , aprincipal is liable as a third party to a lawful contract made by an agent on his behalf and for torts commited by the agent acting in in his actual or apparent authority.

Should a third party seek to recover from a principal ,the third party is required to prove the existence of the agency relationship and that the agent is behaving in accordance with his apparent or actual authority or that the agent behavior was ratified by the principal.

Agent's remedies and principall's remedies :

Remedies are comprised of the existing in cases of torts or contrcat breaches.

An agent may opt to bring a damages suit due to a contratct breach, or an act of tort, or counterclaim,

If the principal sues the agent.

The principal remedies available in angency relationship are as follows :

Indmenification : The principal is permitted to be paid damages from the agent if the principal is forced to pay damages to an injured party for an agent's tort, or counterclaim, if the principal sues the agent.

-constructive trust :The courts will enforce a constructive trust on propert that the agent receives when the agent has used in position in conflit with the principal and the property is held for the principal benefit.

-Avoidance if the agent fails to abide by the agency agreement, any transactions entered into by the agent may be avoided by the principal.

-Principal are permitted to recover from the agent should the agent commit a contract breac or a fudiciary duty breach,or tort.The principal may also elect to discontinue the relationship.

-Entering into an agency relationship

An agency relationship can be entered into by agreement, operation of law, estoppel, or ratification.

An agency by agreement is accomplished by mutual consent of both the principal and the agent, this agreement can be eitheir expressly written or oral.

But in cases of oil Business, the written agreement is compulsory to minimise the business risks.

The agent's authority

An agent has the following authority :

-Implied authority, may be be determined based on the principal behavior, may be determined due to

Customs or traditions.

-Ratification : Principal'confirmation that is permission is granted for a previously unaothorised transaction.

-Express actual authority

-Powers in emergency :Should an unexpected emergency present itself to the agent ,and if f the agency cannot contact the principal,the agent has the authority to act in the best interest of the principal.

Actual authority : Granted by the principal eitheir implicitly or explicitly

Apparent autority : The principal behaves in a maner giving the appereance that the apparent has the principal's autorisation.

Section 2.1.1.5: **COST CONTROL AND INTERNAL CONTROL FRAME LETTER**

Tool 5 Cost control : Reference pages

-To Maintain the operating charges by the costs reductction politics.

-At the ressources level

-At the stocholder's equity,

-At the operating expenses

-To master the integrated services prices

CHAP IV: Section 2.1.1.4: **OPERATIONS FRAMEWORK LETTER**: Reference pages

CHAP IV: Section 2.1.1.5: COMPETITIVE STRATEGY

Tool 4 -Maintain his position by any best service and images

-Maintain the image of services highly sensitive like the Mud logging in order to avoid customers

Loss, because this service is of a great importance for spotting the oil reservoir.So a maximum of precaution must be taken to get results from this service and to maintain the various contracted signs.

-To enrure that the operator purchase list is complete and praparatory work ready

-vice versa to ensure that the contractor purchase list is complete and praparatory work ready

As the financial impact is directly related to the time, the deadline and the costs, it is compulsory to master the bilateral preparation status between both contractual companies.

A strategic veille must be performed individually by the company to know and make the point about the preparation status in order to avoid operational loss time for the lack of material purchase or simple operational delay .

Section 2.1.1.8 **HOLDING REINFORCEMNT STRATEGIC MAINTENANCE POLITICS**

THE MAINTENANCE STRATEGY TO BE CONTROLED BY GOVERNANCE

1The engeneeering Team must make sure that the system are in approriate technical stae for their age.

2-They have to make the material and equipement quality assessement with respect to the standard en vigueur.

3-They must some decentes on the sites to control the materials installation, equipements and devices performed by operators.

4-Collect the Machine, engines, equipements, systems, and devices work units present on the site.

4-Buil in engeneering office a Timeframe table for all equipements, on devices and systems on site, recording by so doing as regard the machine time frame:

-The opening hours

-The Materials required Time

The normal functionning Time (The required Time-halting time)

The normal functionning Time (The B functionning Time-Delay

2.1.1.8: **ENGINE TIME FRAME AND OIL COSUMING**

R 1000L Vidange 1500h Daily consum :		ASSETS	OPENING HOURS	REQUIRED TIME	N B FT	ENGINE TIME FRAME NBFT				NFT			Oil CONSUMING
UQ	UP						Day	Month	Year	Day	Month	Year	
1	10	GE 1		1000									
R 2000 L													
Vidange 1000h		GE 2											
Daily cons													
		GE 3											

Les indicateurs de rentabilité des équipements

AVAILABILITY EQUIPEMENT TABLE

OPERATION USE	DATE	FIELD	TYPE OF EQUIPEM	DAYS	QUANTITY	AVAILABILITY	LABOR	STATUS

RATE			**ENTS**	**Nbrs**		**RATE**	**USE RATE**	
	Du 1/01/20 au 31/07/21	KOUZOLA	RIG 1	350		100%	110	Non Available Equipements
	Du 15/01/20 au 06/07/21	POZZOLA	RIG 2	225		62%		Average availability
			------					
OPERATION USE RATE	**Date**	**FIELD**	**TYPE OF MATERIAL**	**DAYS Nbrs**		**Use rate**		**STATUS**
	Du 1/01/20 au 31/07/21	KOUZOLA	Blow out preventer	350		100%	120	
	Du 15/01/20 au 06/07/21	POZZOLA	Torque equipement	145		48%		Acceptable Availability
			--------			-----		
MATERIAL USE								Material in Rent status
								Material in Rent status

This Board hlp us know :

- The temps de remise à niveau des équipements

-The Material avalaibility Rate

-The Material in Rent Status

-How many equipements are to be Mis à niveau ?

The labor use Rate on the Machine

If the number of the Normal functionning Time is 2200 Hours

And the niumbers of the the Monthly machine functning is 2000

3000/2000 x 100=1.5000 : Here we notice that the Machine has worked more than a previous view

Taux d'utilisation de la main d'œuvre

STRATEGIES RELATED TO THE EQUIPEMENTS RENTABILITY :

The equipement rentability is gotten through some Management steps here below mentionned :

1-To provide two equipements or material (one to exploit and one to stock)

2-To have an electrical and therimical unit to avoid any power Black out when there is no electrical power

3-30%% injection strategy of the old depreciated and material value

4.-Finance 15% equipement sensitive to Breakdown to avoid all activities contract Breach.

The equipement rentability is also gotten through a good maintenance follow up Table wich contains all the maintenance indicators .

Those indicators help determine the normal functionning Time in order to be able to compute each important equipements consuming by computing this sgnificant indicator NFT with the periodical equipement consuming to get a detemined amount of equipement comsumption in a period rank .

Here are the those Maintenance indicators chartflow

Opening Hours : Hour at wich a Machine is supposed to be switched on

Required Time : The Time in wich the Machine or equipement is supposed to run under instruction or Need by day

Gross Functionning Time : is The number of hours computed making Opening Hours-Required Time

Normal Functionning Time : Gross Functionning Time ''NFT'' – Delay

Functionning Time ''NFT'' – Breakdown

IF you decide to make the equipement remise à niveau you will need to :

-Let the equipement on during its required Time

- IF you decide to compute the equipement consuming,

You will need the NFT to multiply with the equipemnt consuming Material amount within the time lapse.

CHAP IV 2.1.2 Holding strategies

STRATEGIES	**FAIBLESSE/HAZARDS**	**ACTIVITIES**	**Reference page**	**RECOMMANDATIONS**
Holding oriented strategies		Making decisions related to the operating field to	Page 1	Common practices

		operate on. Strategic Maintenance (From engeneering department need)		
Research strategies				
Partnership strategies		-Master the real economic situation of the Targeted partner for a commitment decision or for a control necessity. -set up a partnership budgetary framework letter including performance indicators	Page Theory Tool 1	To insert this strategy in the Main holding strategy
Investment strategies		**-Build an investment reckognised structure for each subsidiairy** considering every project stage.	Tool 1 Research Investment Tool 2 Exploratio n and developme nt Drilling investment Toll 3 Production Drilling investment	To insert this strategy in the Main holding strategy
Domination costs strategies		-Detain: **- Fix and variable indirect cost structure** for each subsidiairy -Direct cost structure: 1-(Master the purchase account in normal situation without break down) from the beginning of a well till the end. 2-Build and Master a monitoring Board for	Tool 1 indirect costs structure Tool 2 Direct cost structures according to well operations stages	To insert this strategy in the Main holding strategy

		controlling in real time from the Holding the operation stop countdown,Breakdown reporting	Tool 3 Here after demonstrated	
Stratégie de portefeuille de produits		1-Build a product portofolio for evey subsidiary with: - strategic field cost inicators -strategic field costs Balance 2-competitive environnement Board -Internal environnement -External environnement	1 Tool Here after demonstrated 2 Tool Here after demonstrated	To insert this strategy in the Main holding strategy
Internal cost Managements		Insert in the group politics the possible invoice seuil supposed to guarantee the global result performance of the group considering the economic importance of each subsidiary.	3 Tool Here after demonstrated	

CHAP IV 2.1.2.1 STRATEGIC THEORIES ON SETTING UP A PARTNERSHIP BUDGETARY FRAMEWORK LETTER INCLUDING PERFORMANCE INDICATORS

Strategic implementation requirements underlign the nessassity to elaborate :

- A duplicate partnership budgetary framework letter including strategic and parmanent indicators.

The partners participate to the project, in order to prevent a bad management, noticeably an Project budget axphisie supposed to cause the hlting of the project deviation from the ecomivcal and operationnal objectives of the project.

The financial flows are the determinant factors of a project succes

INVESTMENT STRATEGY TOOLS

RESEARCH INVESTMENT STRATEGY-TOOL 1

RESEARCH INVESTMENT TOOL-1			
FUNDAMENTAL RESEARCH	MATERIAL TO FORSEE	MODEL/QUALITY	AMOUNT
ORGANIC REASEARCH			

CHAP IV.2.1.2.1 .1 **EXPLORATION OR DEVELOPPEMENT DRILLING INVESTMENT STRATEGY-TOOL 2**

EXPLORATION OR DEVELOPPEMENT DRILLING INVESTMENT-TOOL -2			
FUNDAMENTAL RESEARCH	MATERIAL TO FORSEE	MODEL/QUALITY	AMOUNT
ORGANIC REASEARCH	-Exploration Drilling RIG (To Rent) -A production Manifold -Monophasic counter -production Tubing -if possible Build a production control center(to manage the emergency,risky,dangerous operational and safety issues)		

FOR A NATIONAL COMPANY

A national Holding may decide to manage the company and hold the operator title at the project inset when they believe that the operating costs and the technology are not yet mastered.

In this effect, they decide to bail out a state subvention, valuable practices till the profit reached.

CHAP IV Section 2.1.2.1.1 **THE LANCHING STAGE**

SUBVENTION OPERATING CHARGES CAPITAL EXPENSES CHARGES RESULTS

	Jan	Feb	MAR	APRIL	MAY	JUNE	JULY	AGOST	SEP	OCT	NOV	DEC
SUBVENTION												
OPERATING CHARGES												
CAPEX												
Result before Taxes												
Taxes												

RESULTS												

CHAP IV.2.1.2.1 .2 GROWTH STAGE

OPERATING CHARGES CAPITAL EXPENSES CHARGES RESULTS

Once mastered t the organisation, the applied science, the technologies, and the project costs control, then should they decide to grant to the oil national research company the operator Title.

From wich will be in put in practice the oil production share contract between the research national company and the holding.

FOR A MULTI NATIONAL COMPANY OIL PRODUCTION SHARE CONTRACT

The Financing Method is subjected to a traditional process, that is based on a oil share production, because the investors coming on the land are supposed to hold suffiscient amount of stockholders's equity to invest.

PRODUCTION DRILLING INVESTMENT-TOOL -3

PRODUCTION DRILLING INVESTMENT-TOOL -3			
FUNDAMENTAL RESEARCH	MATERIAL TO FORSEE	MODEL/QUALITY	AMOUNT
ORGANIC REASEARCH			

CHAP IV Section 2.1.2.3: **COST DOMINATION STAREGY STRATEGY TOOLS**

INDIRECT COST DOMINATION STRUCTURE-TOOL 1

This structure must be detained b the parent company for every subsidiary.

ACCOUNTS	**FIX**	**VARIABLE**	**OBSERVATION**	**ACCOUTS TO MONITOR**	**OCCASIONAL VARIABLES**
Indirect personal charges	X		**Fix When there's no extra hours**		**X**
Direct Taxes	X			**Extra hours**	
Indirect Taxes			When ther's		
Insurance fees	X		Fix, **except when**	New vehicle	X

			there's a new vehicle purchase.		
General Means	X		Office supplies are fix **Except when the company purchase a Furniture**	Purchase a Furniture	X
Repair and Maintenance of head office vehicles	X		Vidange are fix Repair and Manitenance variable are estimated fix, **except when there's an important car Break down.**	An unforeseen Breakdown	X

The variable occasional accounts Herein reported will be classified occasionaly into the variable charges for possible indirect charges computation and for the Break even computation need.

The Break even computation will be developed further in the coming pages to show another control tool in a specific mode of dynamic cost control that can easily be handled by the holding company.

CHAP IV Section 2.1.1.3**A ONE YEAR OIL CAMPAIGN MATERIAL REQUEST RECORDING MODEL**

DIRECT COSTS STRUCTURES –TOOL 2 FOR ONE WELL DRILLED

		BEFORE WELL START PERIOD		**WELL START PERIOD**		**WELL IN DRILLING OPERATION**		**Material life expectancy**
RIG EXPENSES	**CAPEX TO DO AND TO MASTER**		**CAPEX**		**CAPEX**		**CAPEX**	
	Blow out preventer Certification Blow out preventer							
	Diverter							

	Banc de charge							
	Head Mast Tree							

	Investment Rate/Total costs							
	OPEX TO DO AND TO MASTER							
	Consuming goods							
	Drilling winch	1272 USD						1.5 years campaign
	Drilling line							2 years campaign
	Other lifting cable							
	Consuming G rate/Total costs invested							
	Chemical products							
	Grease fiting							
	Drilling equipment oi**l**							
	MAINTENANCE							
For Koomey oil	5 oil fut 1000L (To after 1000 hrs)	691 USD						
Rotary Table	5 oil fut 1000L (To after 1000 hrs)	691 USD						
Rotary Table Gear speed	56 L							
	Small Material & Tools							
	Small M rate							
	Material & Equipement							

	Material & Equipement Rate							
	MECANIC							
	Key							
	cerflex							
	Boulon							
	ELECTRIC							
	PAINT							
	Pinceau radiateur 50mm	5 USD x 5						
	Pinceau coudée radiateur mono	4USD x 5						
	Pinceau Batiment	5 USD x 5						
	Marteau piqueur	27 USD x2						
	Couteau de peinture	5 USD x 2						
	Adhesive paper	5 USD X 2						
		112 USD						

		BEFORE WELL START PERIOD		**WELL START PERIOD**		**WELL IN DRILLING OPERATION**		**Material life expectancy**
CASING TUBING EXPENSES	**CAPEX TO DO AND TO MASTER**		**CAPEX**		**CAPEX**		**CAPEX**	
	Casing cutter							
	YTD Aquisition							
	Investment Rate/Total costs invested							
	OPEX TO DO AND TO MASTER							
	Consuming goods							
	Accessories tubing torque equipment	15000 USD						
	SPARTS PARTS							

	Electric consuming goods	3272 USD						
	CHEMICAL PRODUCT							
	Grease (Right) Grease fiiting	18 USD 3 X30=90 USD						Consuming according to well timeline
	Consuming G rate							
	MAINTENANCE							**Material life expectancy**
	Small Material & Tools							
	Small M rate							
	Material & Equipement							
	Material & Equipement Rate							
	MAINTENANCE							
CASING TUBING	**MAINTENANCE**							

		BEFORE WELL START PERIOD		**WELL START PERIOD**		**WELL IN DRILLING OPERATION**		**Material life expectancy**
MUD	**CAPEX TO**		**CAPE**		**CAPE**		**CAPE**	

LOGGING EXPENSES	**DO AND TO MASTER**		**X**		**X**		**X**	
	Investment Rate							
	OPEX TO DO AND TO MASTER							
	Consuming goods							
	Consuming G rate							**Material life expectancy**
	MAINTENANCE							
	Small Material & Tools							
	Small M rate							
	Material & Equipement							
	Material & Equipement Rate							
	MAINTENANCE							
	computer							
	Hydrogen computer							
	Gaz system							
	Air conditioner system maintenance	909 USD in Africa In usa ,EU						

		3090 USD						

		BEFORE WELL START PERIOD		**WELL START PERIOD**		**WELL IN DRILLING OPERATION**		**Material life expectancy**
PUMPING EXPENSES	**CAPEX TO DO AND TO MASTER**		**CAPEX**		**CAPEX**		**CAPEX**	
	Investment Rate							
	OPEX TO DO AND TO MASTER							
	Consuming goods							
	Consuming G rate							
	MAINTENANCE							
	Small Material & Tools							
	Small M rate							
	Material & Equipement							

	Material & Equipement Rate							
	MAINTENANCE							

		BEFORE WELL START PERIOD		**WELL START PERIOD**		**WELL IN DRILLING OPERATION**		**Material life expectancy**
FILTRATION EXPENSES	**CAPEX TO DO AND TO MASTER**		**CAPEX**		**CAPEX**		**CAPEX**	
	Investment Rate							
	OPEX TO DO AND TO MASTER							
	Consuming goods							
	Filter TH Filter							Consuming according to well timeline
	Consuming G rate							
	MAINTENANCE							
	Small Material & Tools							

	Small M rate							
	Material & Equipement							
	Material & Equipement Rate							
	MAINTENANCE							
	Filters							
	Filters TH							

		BEFORE WELL START PERIOD		**WELL START PERIOD**		**WELL IN DRILLING OPERATION**		**Material life expectancy**
OPERATIONAL BASE	**CAPEX TO DO AND TO MASTER**		**CAPEX**		**CAPEX**		**CAPEX**	
	Investment Rate							
	OPEX TO DO AND TO MASTER							
	Consuming goods							
	-A compressed Air lubricator filter oil bottle for Pneumatic lubricator.							Consuming according to well timeline
	Produits d'entretien							
	Gardiennage							
	Consuming G rate							
	MAINTENA							

	NCE							
	Small Material & Tools							
	Small M rate							
	Material & Equipement							
	Material & Equipement Rate							
	MAINTENANCE							
	Filters							
	Filters TH							

CHAP IV 2.1.3 Holding Governance

GOUVERNANCE	ACTIVITES	FAIBLESSE/HAZARDS	
Administrative Reforms			
Conseil d'administration			
Comite d'audit			
Controle de Gestion			
Finance et controle interne			

CHAP IV 2.1.4 -Holding economic Model

ECONOMIC MODEL	**WEAKNESS/HAZARDS**	**REMARK**	**REF PAGE OR TOOL**	**ACTIVITIES**
INDUSTRIEL	-No engeneering departement -No dynamic politics based on Maintaining installation or controlling	The Drilling Rig accounts for 30% of depreciation. A generator accounts for		Valuing an engineering department or Maintenance department at a

	the Maintenance costs			holding with a deep look on Material equipements and installation states or costs.
	Lack of General Maintenance Politics in the main politics	The company Governance can not master the Real economic or operational costs without a dynamic Maintenance politics monitored from the holding.		The Maintenance department can: Control the equipement consuming expenses like oil, ---wich make part of a good amount of operational expenses.

It's obvious that the major part of the oil operational ressources are in metal, iron, cupper…so they are perishable.

Then they need a preventive and permanent Maintenance.

From this point of view, Maintenace should make part of a special strategic integration in the Holding business politics.

For instance, as regard the Drilling Rig, Bought at an average amount of 7272727 USD, subject to a depreciation of a maximum of 30% a year for a ten year life expectancy, results in 2181818 USD

So, the lack of maintenance can prevent the material from valuing a certain resistance to the probable depreciation, whereas, a preventive or current maintenance can help the material last more for a future gain at the end of the life expectancy already perçu in valeur actualisé in a present tense.

Thus, in term of gain, the company has from or after the 10 operational years, the advantage to still possess the equipement in good state, that it could still harness the operationals assets.

So, the role of a Maintenance strategic department should be in order of priority to:

1-To maintain the Material, equipements and installation life expectancy in order to gain in potential possible operations and economically

2-To ensure rationnaly the control of Maintenance consuming expenses

The maintenance operating expenses make part of consuming expenses.

They are made of oil, operational equipements spare parts, Maintenance external services.

Here is a Model of Management Board that can help conduct Maintenance cost controls.

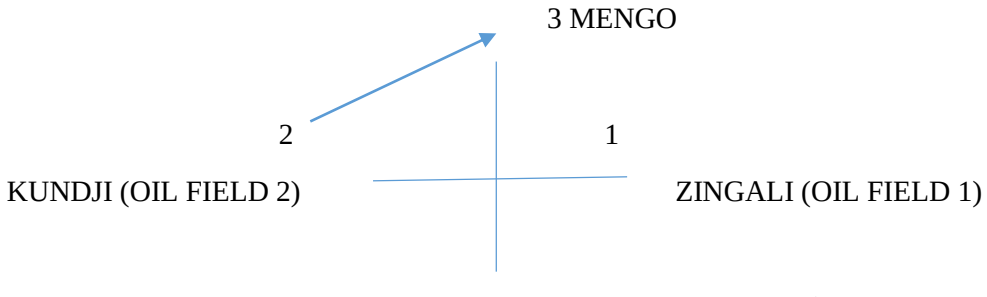
MAINTENANCE COST CONTROL

EQUIPEMENTS OIL CONSUMING

GENERATOR OIL CONSUMING					
GENERATOR 1					
GENERATOR 2					
GENERATOR 3					
GENERATOR 4					
GENERATOR 5					
GENERATOR 6					
GENERATOR 7					
GENERATOR 8					

TOP DRIVE OIL CONSUMING					
GENERATOR 1					
GENERATOR 2					
GENERATOR					
KOOMEY OIL CONSUMING					
KOOMEY 1					
ROTARY TABLE OIL CONSUMING					
ROTARY TABLE OIL CONSUMING					
BLOW OUT PREVENTER OIL CONSUMING					

OIL CONSUMING BY TRACKS TRAVELLED



TOP DRIVE OIL CONSUMING					
GENERATOR 1					
GENERATOR 2					
GENERATOR					
KOOMEY OIL CONSUMING					
KOOMEY 1					
ROTARY TABLE OIL CONSUMING					
ROTARY TABLE OIL CONSUMING					
BLOW OUT PREVENTER OIL CONSUMING					

CHAP IV 2.1.5 Holding value chain

VALUE CHAIN	FAIBLESSE/HAZARDS	ACTIVITIES	REFERENCE PAGE OR TOOL	RECOMMANDATION
Mixt Economic Model	Industry et sale	-Research -Drilling -Production -Refinery		

CHAP IV 2.1.6 Holding centralized authority

CENTRALIZED AUTORITY	FAIBLESSE/HAZARDS	ACTIVITIES	REFERENCE PAGE OR TOOL	RECOMMANDATION
The aim is to heighten the Chief executive officer power To: -ensure Good governance,Management	No possession of personal Management control Tool sensuring the indepence to other executives	-Build Mangement control Tools		The Chief executive officer must Build and posses all Management control Tools before receiving any from his cost control.

The chief executive officer, as the boat commander must have his own Management control Tools that can help him control all the Mangers and the overall Management, because the financial Matter with its data can't provide him with all the analytical informations.

The Management control help all the Managers in the Making decisions process, in the change management and even in the strategies to carry out.

CHAP IV 2.1.7 -Holding power relations

POWER RELATIONS	WEAKNESS/HAZARDS	ACTIVITIES	REFERENCE PAGE OR TOOL	RECOMMANDATION
Cooperation -Coordination	Lack of cooperative relations between the Oil reaserch CEO and the Drilling contractor CEO -Lack of cooperative relations between the subsidiaries CEO and the Holding General Managers.	-		The chief executive officer must have a good cooperation and coordination towards his subsidiaries managers.

CHAP 2.2.1-THE AREA OF OIL CORPORATE REASERCH DEVELOPMENT GOVERNANCE

CHAP IV 2.2.2 oil corporate subsidiary Research and development politics

POLITIQUES DU GROUPE	WEAKNESS/HAZARDS	ACTIVITIES	REFERENCE PAGE OR TOOL	RECOMMANDATIONS

CHAP IV 2.2.2 – oil corporate subsidiary Research and development politics and strategies

STRATEGIES	WEAKNESS/HAZARDS	ACTIVITIES	REFERENCE PAGE OR TOOL	RECOMMANDATIONS
Bid tender Framework				
Stratégie de portefeuille de Champs			Pages:	
Oil share profit computation				
Stratégie de Gestion de couts internes				

STRATEGIC RESEARCH

CHAP IV section 2.2.2.1: EXPLORATION WELLS

The formation pressure control is vey important during the exploration sage, for it:

It conditions the wells architecture and the the choice of fluids and help define the safety margins and definitely the costs savings as we describe below.

-the anticipation quality is determined for the well safety as described

CHAP IV section 2.2.2. **FIELD PORTOFOLIO COSTS DOMINATION STRATEGY**

NATURE OF FIELD	YEAR N	TOTAL PROVEN RESERVES	%	DELOPED PROVEN RESERVES	%	WELL IN PRODUCTION
Newly discovered Fields		**700 000 000 Bls**		**20 000 000**		
Investment for an annual campaign	**6 727 272 Bbls**					

The field appraisal is done through a reserve ratio wich is a coefficient depletion of the Reservoir.

It's the element that is taken into account for an installation depreciation appraisal.

Because the installation is supposed to depreciate in function of the natural ressources depletion.

Therefore, the more is developed proven reserves, the more will be the depletion rate.

That means the depletion rate increase in accordance with the developed reserves.

The less are the reserves, the less will be the depletion rate.

So, the depletion rate depends on the annual developed proven reserves level.

For exemple: 20 000 000/700 000 000=2.8% depletion rate.

This depletion rate is to multiply with the investment amount to get the amount that will allow you the have the gross investment.By doing:

INITIAL INVESTMENT=120 000 000 000

INVESTMENT VALUE TO DEDUCT FROM THE INITIAL VALUE:

120 000 000X2.8%=3 360 000 000

Net investment: 120 000 000 000-7 920 000 000=112 080 000 000

This is the net investment value at before starting the first operating year.

This net investment will be computed with the respective yearly depletion rate in relation with the numbers of reserves developed.

The more the reserves are developed, the more the depletion rate is important.

The depreciation, will be then computed by multiplying each depletion rate with the net investment.

In conclusion each yearly depreciation is function of the yearly depletion rate.

	N	**N+1**	**N+2**	**N+3**	N+4	N+5	N+6	N+7	N+8
Yearly Production	12 000 000 M	10 M	35M	45	50	55	60	70	75
Annual Reserves	20 000 000	22 000 000	30 000 000	40 000 000					
Remainning Reserves	680 000 000	658 000 000	628000000	588000000					
Depletion Rate	2.8%	3.23%	4.55%	6.36%					
Depletion to reduce To get net investment	188363								
Investment	6 727 272								
Net Real Estate	6 538 908								
Depreciation		211206 US	297520 US	415875 USD					

DEPELETION RATE:

N: 20 000 000/700 000 000 =2.8%

N+1:22 000 000/680 000 000=3.23%

N+2:30 000 000/658 000 000=4.55%

N+3:40 000 000/628 000 000=6.36%

DEPRECIATION:

DEPRECIATION

N+1: Net Investment x 3.23%

6 538 908 X 3.23%=211 206 USD

N+2: Net Investment x 4.55%

6538 908 x 4.55%=297520 USD

N+3:6538 908 x6.36%=415 874

RESULT SIMULATION

Production

10 MB x100 U nit/ Bbls=1000 000 000

Investment: 6 727 272

	Barrel Quantity	Barell unit Price	Total production			
PRODUCTION	120 000	100 USD	12 000 000 USD			
INVESTMENT (opex +capex)			6727272 US			
DEPRECIATION			**924601 US**			
			4 384 127 US			
INTERST/BORROWING			300 000 US			
EBITDA			4 084 127 US			
TAXES			150 000 USD			
EBITTDA			3 934 127 USD			

MULTINATIONAL COMPANIES FIELD PORTOFOLIO COSTS DOMINATION:

The multinational field portofilio costs domination will based on the numbers of year allowed to exploit in the operating region where the company evolves.

The duration of the production right to rejoice the product usufruit is 30 year, year afeter which, the field has to be returned to the stae.

This temporary parameter is to be taken into account because the Business deal here is subjected to a linear table that extends till 30 operating years.

In this context, on principal, the multinational company makes an operational plan, by wich the will preconize an average production defined on a 30 year baisis.

PRODUCTION AVERAGE FORCAST ALONG A 30 YEAR EXPLOITATION

This 30 year bais plan is made with linear production forecast theat is supposed to cover the 30 years.

But in practice,some multinational avoid increased costs,because to exploite a field is synonymous with big expenses to spend,Thus,for a 30 year basis production strategy s,some company prefer to avoid a linear production,opt however for a strategic production with frequent operations stops.

Whee the company is supposed to count on its sales to manage and support the overall business daily charges.

Here below is presented is commented this field cost control Model.

	J		F		M											

NATIONAL COMPANY FIELD PORTOFOLIO COSTS DOMINATION:

The National field portofilio costs domination doesn’t depend on any determined year.

The duration of the production right to rejoice the product usufruit is unlimited on condition that the reservoir still be productive.

OIL PROFIT SHARE COMPUTATION																	
	Q	Bbls	Q	Bbls	Q	Bbls	Q	Bbls	Q	Bbls	Q	Bbls	Q	Bbls			
Bbl unit price 90US																	
Production	4000	360 000 000	3000	2700 0000 0	5000	4500 0000 0											
Cost oil		260 000 000		130 000 000		250 000 000											
Excess						250 000 000											
Profit oil		**100 000 000**		**140 000 000**		**250 000 000**											

We deal with this production subject because the production beeing produced at the end of the procces is controlled by the research company.

: **STOCKED PRODUCTION MANAGEMENT**

In accounting the stocked crude oil product is recorded as follow:

IN THE OPERATOR ACCOUNTING

Debit: hydrocarbons tsock

Credit: hydrocarbon stock products

FLOWING PRODUCTION MANAGEMENT

		Q.NET	GAS OIL RATIO	BASIC WATER SEDIMENT			

CHAP IV section 2.2.2.4: **OIL PROFIT SHARE COMPUTATION**

The share profit oil computation is subjected to a standard presentation that reflect the national investment code in evry country.

The profit oil computation is presented according to the standard presentation.

It's important to notify that the taxes related to this accounts depend on the individual country investment code or fiscal law.

However, the cost oil here above stated is computated as a reimbursement account that must be reimbursed to the operator who has invested or spent his money as advance account, behalf of the drilling contractor.

Cost oil: Here the operator withdraw his money invested, in nature in production cession form.

- ✓ **THE COST OIL ACCOUNTING RECORDING**

The cost oil accounting is recorded as follow:

AT THE MULTINATIONAL OPERATOR

1st recording operation

DEBIT: stock variation

CREDIT: hydrocarbons stock

2nd recording operation

DEBIT: compte d'avance

CREDIT: production cession

- ✓ **THE OIL RESEARCH ACCOUNTING RECORDING(EXPLORATION STAGE)**

DEBIT: Exploration costs

DEBIT: Interest exploration costs

CREDIT: partner advance accounts

CHAP IV 2.2.3 Holding Governance

GOVERNANCE	**WEAKNESS/HAZARDS**	**ACTIVITIES**	**REFERENCE PAGE OR TOOL**	**RECOMMANDATIONS**
Administrative Reforms				-
Conseil d'administration				-Must supervise the audit comitee -supervise The subsidiaries Managers -garantee the Business strategies -Ensure the Managers collaboration propension to work in cohesion.
Comite d'audit				-Trace the Global audit Frame and implemenent main audit directicves.
Controle de Gestion			Page	-control the business strategy -Budget Management -costs control
Finance et controle interne				

CHAP IV 2.2.4 oil corporate subsidiary Research and development economic Model

ECONOMIC DEVELOPMENT		**LIMITS**		**LIMITS**	**REFERENCE PAGE OR TOOL**	**RECOMMANDATIONS**
MIX ECOMIC MODEL						
COMMERCIAL MODEL			**INDUSTRIAL MODEL**			
Offer			Prospects			Make a Global field survey with meticulous data monitoring.
Demand			Infrastructures			Value the maintenance activity to keep sustainable the assets.
Balance						
INDUSTRIAL MODEL						

CHAP IV 2.2.5 oil corporate subsidiary Research and development value chain

VALUE	**WEAKNESS/HAZARD**	**ACTIVITE**	**REFERENC**	**RECOMMANDATION**

CHAIN	**S**	**S**	**E PAGE OR TOOL**	**S**
Mixt economic Model	Industry and sale			
Oil Productio n Monoring		Monitor the oil production		Put an accent on the personal Training.
Well Test		Test the oil productive capacity after drilling and monitor in course of production.		
Coilded Tubing				
Work over				

It's important to remind that the workover operations wich concerns with redynamising the oil well production, are facultativement managed by the production subsidiary either by the drilling contractor.its depends on the company politic.

CHAP IV 2.2.6 oil corporate subsidiary Research and development centralized authority

CENTRALIZED AUTHORITY	**WEAKNESS/HAZARDS**	**ACTIVITIES**	**REFERENCE PAGE OR TOOL**	**RECOMMANDATIONS**
The aim is to height the Chief executive officer power To: -ensure Good governance,Manage ment	No possession of personal Management control Tools sensuring the indepence to other executives	Build Mangemen t control Tools		The General Director officer must Build and posses all Management control Tools before receiving any from his cost control.

The chief executive officer, as the boat commander must have his own Management control Tools that can help him control all the Mangers and the overall Management, because the financial Matter with its data can't provide him with all the analytical informations.

The Management control help all the Managers in the Making decisions process, in the change management and even the strategies to carry out.

CHAP IV 2.2.7 oil corporate subsidiary Research and development power relations

POWER RELATIONS	**WEAKNESS/HAZARDS**	**ACTIVITIES**	**REFERENCE PAGE OR TOOL**	**RECOMMANDATIONS**

-Cooperation - Coordination	-Lack of cooperative relations between the Oil reaserch General Director and the Drilling contractor General Director -Lack of cooperative relations between the subsidiaries General Directors and the Holding General Managers.	The General Director must initiate bilateral regular meeting with his counterpart CEO		Cooperation -Coordination Must be under Governance Guidelines To ensure the Business operations success.

CHAP 2.2-THE AREA OF OIL CORPORATE DRILLING GOVERNANCE

CHAP IV CHAP IV Section 3.1 **oil corporate Drilling subsidiary politics**

DRILLING SUNSIDIARY POLITICS	**WEAKNESS/HAZARDS**	**ACTIVITIES**	**RECOMMANDATIONS**	**TOOLS**
Well differential sticking problems solvings	Differential sticking increased by the well being deviated	In Drilling or in Workover	Insert the differential sticking possible resolutions into the busness'politics	During driilig contact with the office or the Headquater for upper supervision
Great amount of Mud leak after the formation crack	Formation crack after ovepressure on the deph pressure.		Insert into the busness'politics the steps to take to avoid such operations problems causing huge money loss.	During driilig contact with the office or the Headquater for upper supervision

CHAP IV 3.2. – oil corporate subsidiary Drilling politics and strategies

STRATEGIES	WEAKNESS/HAZARDS	ACTIVITIES	RECOMMANDATIONS	TOOLS
research strategies		1-Look after the other‘s parents’s companies, drilling contractors decisions taken during strategic reunions and comitee.		
Strategic field portofolio				
costs Management strategy				

CHAP IV Section 3.3 **DRILLING HUMAN RESSOURCES COSTS DOMINATION STRATEGY**

The seasonal drilling activity needs a rigorous and standard application mode that makes the firm be profitable.

DETAILED PERSONNAL CHART TABLE

The personal chart here presented provided a visibility that in governance helps making quick and easy decisions.

VIEW 1 **VIEW2**

TOTAL FIRM PERSONAL	RATIONAL EMPLOYEMENT PRACTCE			UNRATIONAL EMPLOYEMENT PRACTICE		A COMPARED ASSIMILATION TO PRECENT CASES		
		NUMBER OF PERSONAL	RATE	NUMBER OF PERSONAL	RATE	NUMBER OF PERSONAL		
GD,HR,FM, OM,HSE/M, LEGAL MANAGER OR COST MANAGER	DIRECT MANAGEMENT EXECUTIVE EMPLOYEMENT	6		36				
-2 Drillers shift Teams(2 x2) - 2	OTHER DIRECT EXECUTIVES	4						

	MAITRISE OFFICE	6						
32 for drilling Teams and 12 others from varios departement	EXECUTANTS	44						
		60	100%	100	100%			
EXTERNAL FIELD PERSONAL HIRING ANALYSIS	THIS HERE BELOW PERSONAL CHART PRESENT THE OPERATORS WHO ARE SUSCEPTIBLE TO BE HIRED IN EXTERAL HIRING.THEIR HIRING DEPEND ON THE FIRM'S NEED AND STRATEGY WITH RESPECT TO THE COSTS TABLES. THE FIRM DECIDE WICH PERSONAL CATEGRY IT HAS TO SUBCONTRACT TO SAVE HUMAN RESSOURCES COSTS.THE SURVEY IS DONE ACCORDING TO THE WEGIHT CHARGES AND HR NEEDS.							
-2 Drillers shift Teams(2 x2) **- 2 Toolpusher**	DIRECT EMPLOYED DRILLERS	4	6.6%		100			
- 4Pumpmen -16 Roustabouts 12- Rougneck	DIRECT FIELD EXECUTANT	32	53%		0			

CHAP IV Section 3.4: **SOCIAL AND FISCAL COTISATIONS MASTERY**

TABLES

A COMPANY GROSS WAGE	**Social security**	**Social security Rate**		**B COMPANY GROSS WAGE**	**Social security**	**Social security Rate**	**C COMPANY GROSS WAGE**	**Social security**	**Social security Rate**
181818 USD				**363636 USD**			**636363**		

CHAP IV section 3.5: **STRATEGIC USE OF THESE SOCIAL AND FISCAL SUMMARISED DATA**

CHAP IV: section 3.6: STRATEGIC **USE OF THIS PERSONNAL CHART**

The mastery of this various rate help make automatic accounting computation from the detention of a general chiffré.

As you know the Business global wage of the Global salary:

DECIDE TO TAKE THE EXTERNAL PERSONNAL

IN ORDER LETTER				**IN DIRECT CONTRACT**			
Gross wage	**Social security**	**Tax**			**Social security**	**Tax**	
500 000 USD	**NA**	**NA**	**500 000 USD**	**500 000 USD**	**100 000 USD**	**150 000**	**750 000 USD**

The advantage to hire external operator personal is that you don't incorporate…..

Without paid congés neither final year allowance expect when the oprator contract goes till the end of the year.

Those two nature of wages accounting process help to compute the operational costs in eefect according to their personal daily costs ,that must be multiplied by the number of days.

For that end, we need to buil up a daily personal costs for all the activities you run.

CHAP IV: section 3.7: **A MODEL OF PERSONAL DAILY COSTS**

COMPANY A NET WAGE	**24 OPERATIONAL DAYS**	**COMPANY B NET WAGE**	**24 OPERATIONAL DAYS**	**COMPANY C NET WAGE**	**16 OPERATIONAL DAYS**
181818 USD	**7 575.75 USD**	**363636 USD**	**661156 USD**	**636363**	**39 772 USD**

The total of this personal daily costs will allow to get at the end, the total Human ressources costs, that will be gathered with the other remaining costs.

CHAP IV section 3.8: **STRATEGIC RECOMMANDATIONS**

The personal strategic employement recommends on principle:

-Direct permanent employement for the executive peronal of strategic positions, for instance:

- The General Manager

-The financial Manager

-The Human ressources Manger

-The safety Manager

The purchase Manager

-A cost control in case of.

UNRATIONAL EMPLOYEMENT PRACTICE TO SET RIGHT (Managing the operational personal costs strategies)

CASE STUDY OF ONE RIG TO TWO RIGS TO OPERATE: when the company

-Is just grading up economicaly

-

The strategic precaution to take against the costs of extra hours seemingly able to participate to the margin diminutions recommend to have this personal on Board:

FIRST DRILLING TEAM 1

SUPERVISION	2 Toollpushers		35 working days
			14 working days
	4 Drillers		14 working days
2 ASSISTANT DRILLERS			14 working days
			14 working days

OTHER EXECUTANT PERSONAL

SECOND DRILLING TEAM 2

FIRST DRILLING TEAM 1

SUPERVISION	2 Toollpushers		35 working days
			14 working days
	4 Drillers		14 working days

2 ASSISTANT DRILLERS   14 working days

  14 working days

OTHER EXECUTANT PERSONAL

CHAP IV 3.9 oil corporate subsidiary Drilling economic Model

ECONOMIC MODEL	LIMIT		LIMITS	REFERENCE PAGE OR TOOL	RECOMMANDATIONS
MIX EXONOMIC MODEL				NA	-
COMMERCIAL MODEL		**INDUSTRIAL MODEL**			
Drilling Material provision and other components	-No Asset availability Rate control -Identify the overall Break even costs The overall depreciation of Materials - and equipements		-Bad Assets state - insufficient asset availability for guaranteeing the drilling operations.		-conduct the equipment availability rate monitoring. (To be able to negociate contratcs anytime) Identify the overall Break even costs -

CHAP IV 3.10 oil corporate subsidiary Drilling value chain

VALUE CHAIN	ACTIVITES	WEAKNESS/HAZARDS	RECOMMANDATIONS

Drilling Activities And Oil services	-Core Drilling activities -workover(for maintaining wells) -casing Tubing -Mud logging -Pumping -Filtration	- Non maitrise costs Unskilled, A Bad reputation	-To have the package costs structure --another modeled costs structure(core field +one service) core field +2 services)

CHAP IV 3.11: oil corporate subsidiary Drilling centralized authority

CENTRALIZED AUTHORITY	WEAKNESS/HAZARDS	WEAKNESS/HAZARDS	REFERENCE PAGE OR TOOL	RECOMMANDATIONS
The aim is to heighten the Chief executive officer power To: -ensure Good governance,Management	- No possession of personal Management control Tools sensuring the independance to other executives contractor G eneral Director -Lack of cooperative relations between the subsidiaries General Director and the Holding General Managers.	Build Mangement control Tools	NA	The General Director must Build and possess all Management control Tools before receiving any data from his cost control.

CHAP IV 3.12 oil corporate subsidiary Drilling Power relations

POWER RELATIONS	WEAKNESS/HAZARDS	ACTIVITIES		RECOMMANDATIONS
-Cooperation -Coordination	-Lack of cooperative relations between the Oil reaserch CEO and the Drilling contractor CEO -Lack of cooperative relations between the			Cooperation -Coordination Must be under Governance Guidelines To ensure the Business operation success.

	subsidiaries CEO and the Holding General Managers.			

The areas of governance concerning Holding governance, is presented as a set of governance structure aligned with its relevant inputs, its weakness or hazards and solution approachs.

CHAP IV: section 1 –OIL BUSINESS RESEARCH GOVERNANCE AUDIT

Audit of research governance can be defined as a steps or a integrated device which links the oil research Business value chain with the integrated value chain of all the oil research stages in oder to guarantee their convergence to establish finally the logic ……that guide to the discovery of hydrocarbons presence, along with the logistic catering, possible envents, and other direct consuming elements that are needed in the operation process stages.

Audit Fundamentaly known as the subject that ensure to the business the greater monitoring of its operations is subject that requires the knowledge of specific matters that are supposed to be known by an oil company chief executive officer or, by the general Managers leading those oil various oil subsidiaries.

This Business operational governance research is based on the main domain of Governance, to quote, the politics and business strategy, centralized power authority and the a management base on managers cohesion.

The second important tool that is compulsory for the good governance is the operational research.

The operational research is a type of research that helps reach Mathematics solution by Esperance mathematics, in uncertain situations or random situations.

As the oil business is filled with a lot of factors consuming automatically huge amount of money, when no stric insight is given, such as the timeframe, the constraints.the distance…

This science is as useful in this research because in practice, a company doesn't profit from the effect of experience of one epruve on another, to capitalize.

In effect, for certain factors reoccurring, it's possible the buil a knowledge management tool.

But for others the uncertaintity drives us necessarily to the operational research labor.

All above when the operation Manager has changed, and when the same or the diversity epreuve occur.

The operational Research is in this case, the solution.

For this audit, we will use the graph theory to re trace the tracks and the shift numbers, or to retrace the planning for se reperer in the time and espace.

The linear programming will also help us compute linear production input or data from continuous and discrete variables.

The stochastic programming wil also help us define duties ordonnancement, planning, flow of mouvemements or the flow of operations

Definetly those data computations are made and organized by an engeneering department who once computed or approach those complex results, allow to the Business Governance to deseign any operational politics.

CHAP **IV: section 2: THE OPERATIONAL OIL BUSINESS RESEARCH STRATEGY**

The oil research strategy is based on a good understanding of the definition of the strategy and the research.

The strategy is a choice criteria leading to a decision.

From this point of view to have a good research strategy, it's important to have a good understanding of the operational research process, because the operational research is the image of the Business process.

The appropriate research tecnics concerning the geophysic surveys in compliance with the fields formation has been object of several research failures resulted by dry wells.

In effect, No good governance can be gotten without la maitrise du gisement.

Because the gisement decline the project probable potential and decline par consequent the various Field strategies development and actions plan to achieve.

Therefore, the audit of oil research strategy aims at determining the fundamental matters and their related subjects for wich the knowledge help the Managers or the chief executive officer govern with excellence or with the rules of the art an Oil Research project.

First of all the oil research strategy must be addressed to an oil company Strategy Manager, as he is the Responsible of this duty and further more to various oil company Managers for whom those below detailed grasp knowledges are important.

For that, the audit duty will consist in elaborating a template frame with a checklists transcribing a good number of governance questions from the l'etat du gisement firstly, to the development wells through the appraisal wells.

The mission consist in:

-elaborating the questions that make sure of the existence of gisement

-elaborating the questions that make sure of the gisement knowledge.

-building some interviews questions that confirm or infirm the existence the operational procedural standards along the reaearch campaign, the material or equipements standards to use for the mission.

-elaborating the value chain integrity questions to make sure that the operation is adroitement and scientifically conducted to achieve the mission without any ignored risks, or without beware at all aware of the more sensitive questions wich determine the probability of the project success

CHAP XIII I III I section 3: **TECHNICAL OIL RESEARCH INTERVIEWS TEMPLATE FRAME CHECKLIST**

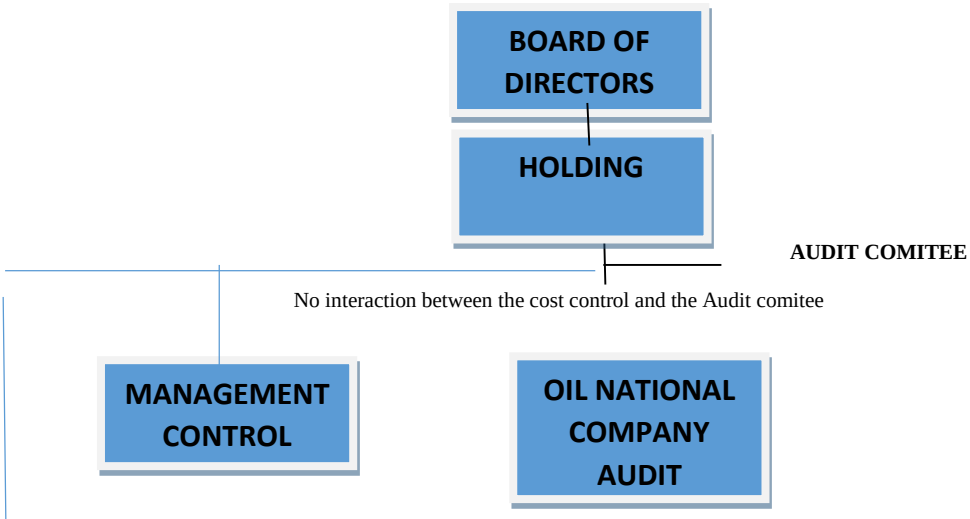
		ERA SCALE	**POROSITY**	**GOR**	**BASIC SEDIMENT WATER**	**FLUID**
Existence du gisement	**-Does the reservoir ensure the hydrocarbons presence**	Is the oil located in an era scale formation reknowned as containing hydrocarbons or recipient of an oil migration? -At wich Kilometer is located the oil Reservoir?	Wich is the oil volume on the Total oil fluid contained in the Roch	Wich is the gaz oil volume on the Total oil fluid contained in the Roch	Wich is the water volume on the Total oil fluid contained in the Roch	What is the oil fluid API quality
		Pressure state				**MUD**
Gisement Knowledge		Does the Roch have big pores? Wich is the Roch pore size? Does the Roch have big size grains? What is the Roch grains size -What is the geothrmic pressure?	Has the gisement have a normal pressure or anormale pressure			Wich is the mud density to use for drilling according to The the pores pressures
		The Material standards				
Research operational standards						
Material standards						
Equipements standards						
Value chain integrity questions						
Sensitive Diverse						

questions						

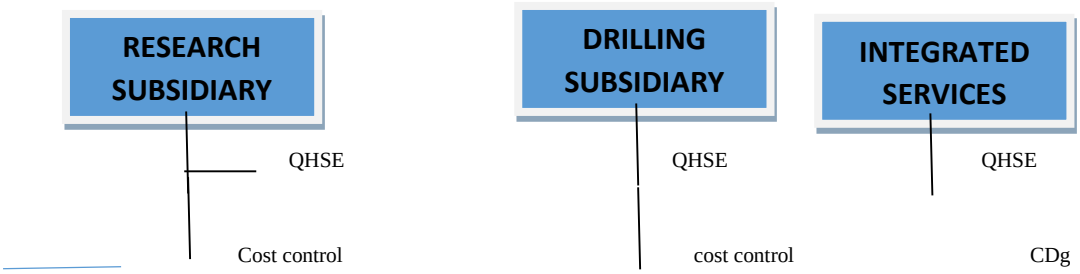
CHAP V: AUDIT OF GOVERNANCE SHAPE OF A NATIONAL OIL COMPANY IN CONTRATCT WITH AN OPERATOR AND AN OPERATIONAL CONTRACTOR

section 1

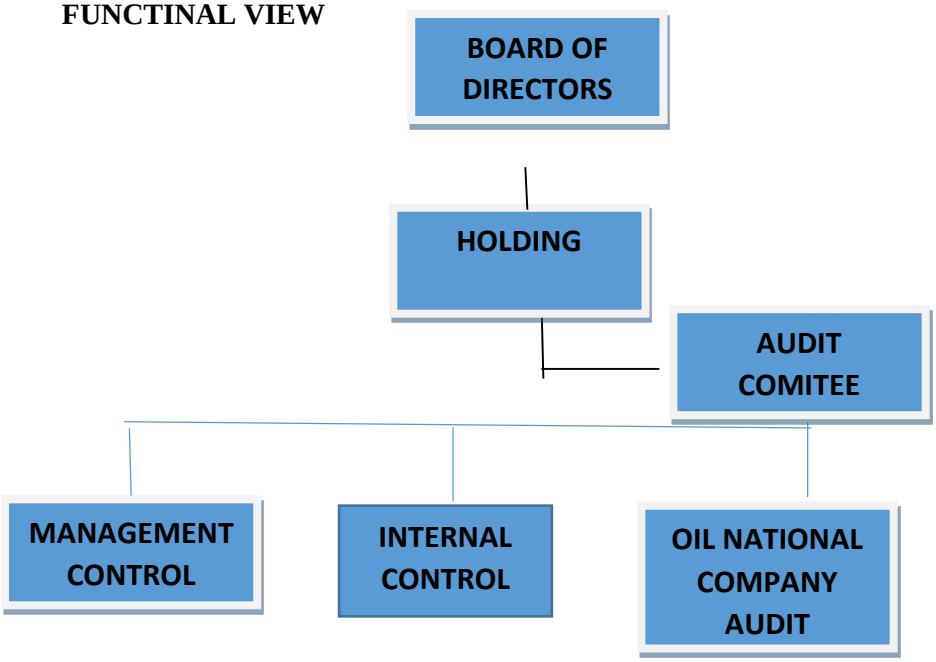
1 **IMPERFECT GOVERNANVE SHAPE IN AN ORGANISATINAL AND FUNCTINAL VIEW**



THE SUBSIDIARIES

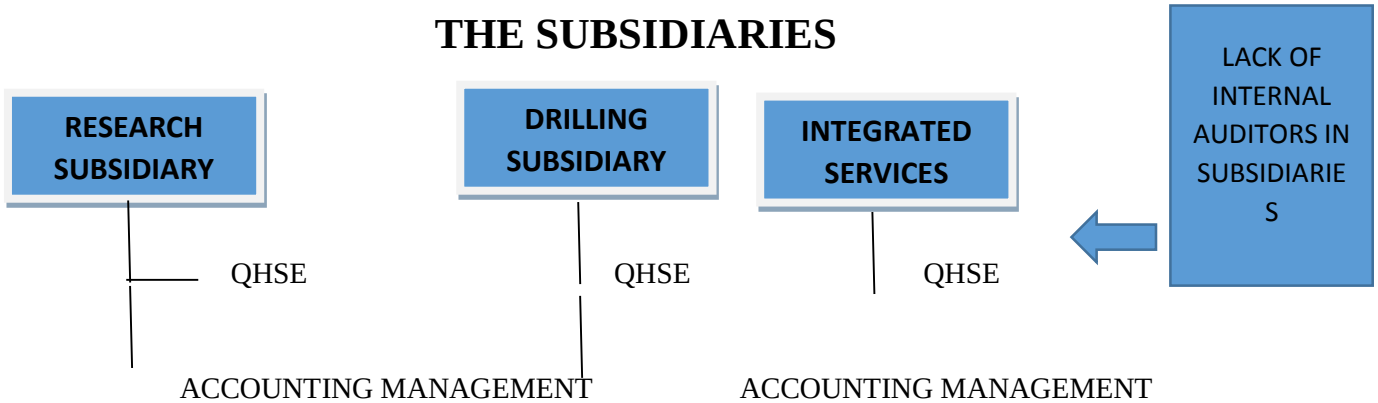


CHAP V Section 2 **OPTIMALGOVERNANVE SHAPE IN AN ORGANISATINAL AND FUNCTINAL VIEW**



THE SUBSIDIARIES

THE SUBSIDIARIES



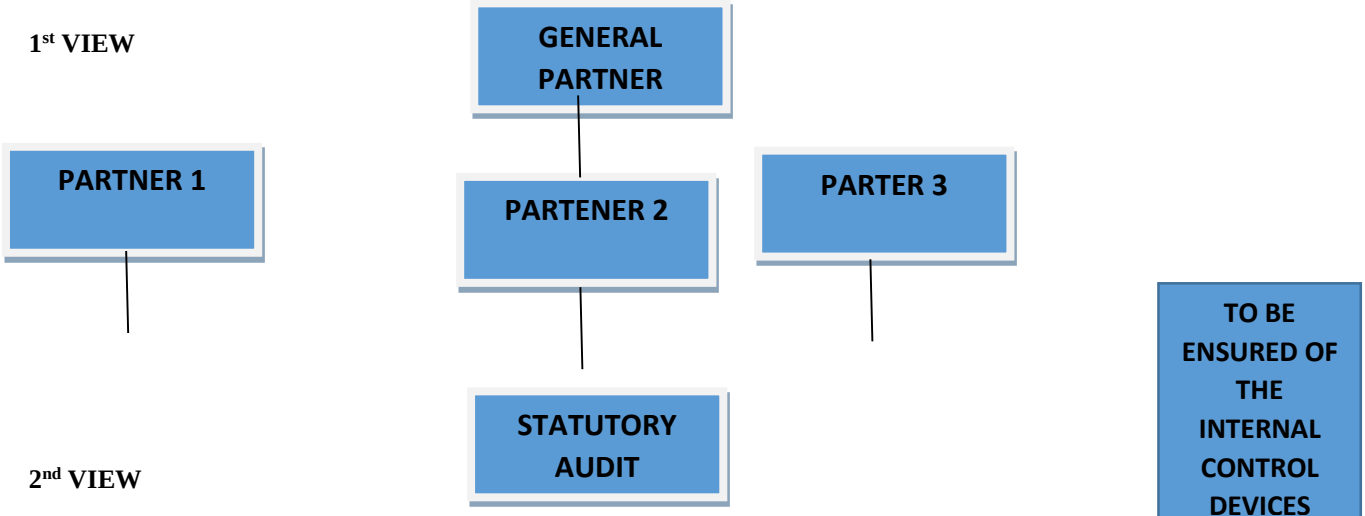
V: AUDIT OF GOVERNANCE SHAPE OF JOINT VENTURE AGREEMENTS

SECTION 1SHAPE1: IMPERFECT GOVERNANCE SHAPE AS REGARD THE ORGANISATIONAL AND FUNCTIONAL IMPERFECTION GOVERNANCE.

ORDER OF AUDIT STATUTOR

JOINT OPERATING AGREEMENT

1st VIEW

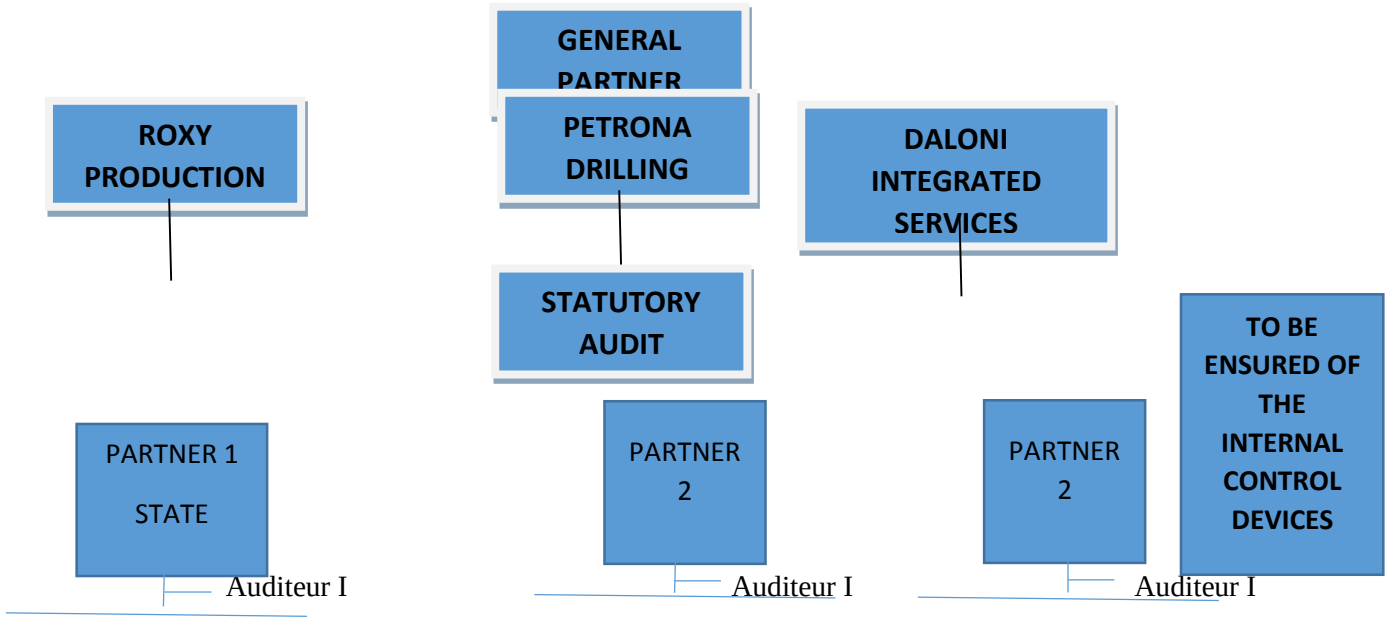


2nd VIEW

In this imperfect shape,each partner has no auditor.The individual auditor is important to help the business make a preliminary audit before the arrival of the Audit statutory consisting in certifying the Business accounts.It's then better that the accounts be examined before.

CHAP V Section 2**SHAPE2: OPTIMAL GOVERNANCE SHAPE AS REGARD THE ORGANISATIONAL AND FUNCTIONAL ORDER OF AUDIT STATUTORY**

JOINT OPERATING AGREEMENT



DYSFUNCTIONNING ALALYSIS :

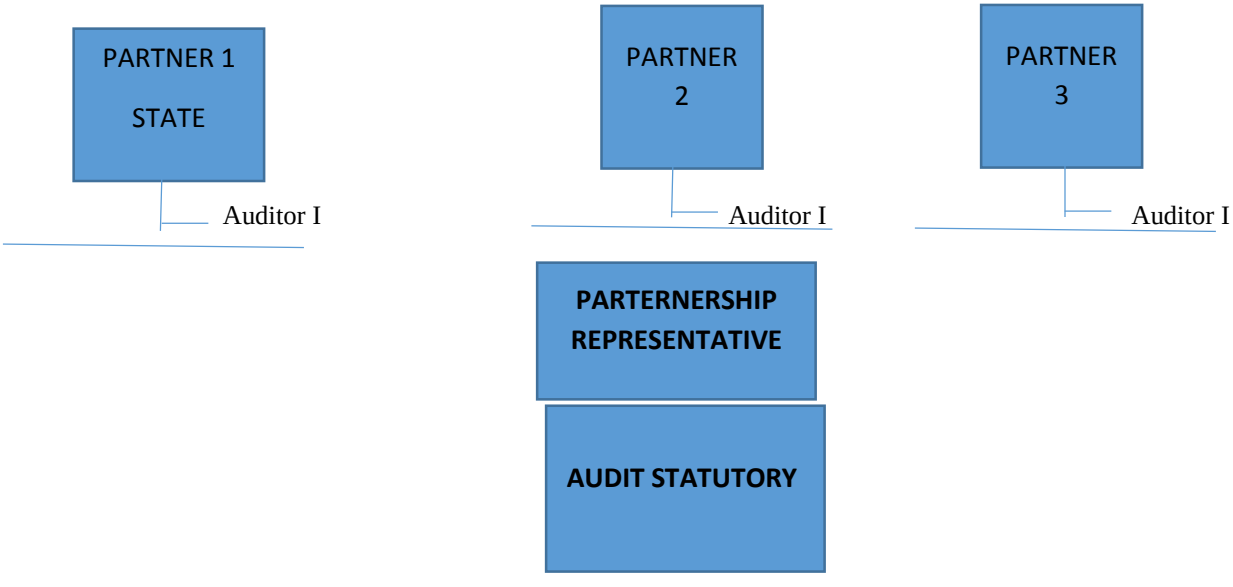
UNCOMPLIANCE STANDARDS :

PARTERSHIP CONTRATC

CHAP VI: THE STANDARD AUDIT STEPS IN JOINT VENTURE AGREEMENT

ARTICLES OF AGREEMENT	THE AUDIT STEPS STANDARD	ATTRIBUTION	ACTIONS TO UNDERTAKE	
	-Name a representative partnership	Proceed to the tax -audit.	Determine: -the share of net or loss profit -the credit	
	-select a certified public accountant	-Help for the accountancy		
	-select a statutory auditor	Certify the parternship accounts	Determine if the accounts reflect the faithful image of the partnership	

VI **section1 OPTIMAL GOVERANCE SHAPE IN JOINT OPERATING AGGREEMENT WHERE THERE IS A STATUTORY AUDITOR AND A WHERE THE STATE IS REPRESENTED.**



CHAP VII Section 2: **THE BOARD OF NON COMPLIANCE AND RECOMMANDATIONS OF THE TYPES OF AUDIT AND CONTROLS**

THE NON COMPLIANCE AND RECOMMANDATIONS OF AUDIT TYPES

TYPE D'AUDIT	**DEFINITION DU TYPE D'AUDIT**	**CONTEXTUAL NON COMPLIANCE DE LA PORTEE DE LA DEFINITION DU TYPE D'AUDIT**	**RECOMMANDATIONS NORMATIVES DES TYPES D'AUDIT**
Operationnal Audit	Audit specific duties And process that organise them	NA in certains firms	Forsee operational Audit on The specific performance appraisal. (in all the specific fields)
Management Audit			
Internal control		NA in certains firms	
Accounting Management		Non existence of cash flow follow up structure Depreciation computation non équivalent to the drilling Rig depreciation	Implement a folllow up automatic financial modelisation
Operational control		NA in certain firms simple visit operational responsibles without any docmuentaions, neither control.	Forsee checklists for operating mode by operator's category or operational functions /Positions. Forsee a camera as helping tool for making strategic decisions. Technological, stratégic...
			Recherche des technologies de pointe plus performante pour suivi des opérations à distance avec un tutorat plus excellent.

CHAP VIII**. THES ROLES AND MISSIONS OF EACH CONTROL ORGAN FROM THE PARENT COMPANY TO THE SUBSIDIARIES**

CHAP VIII Section 1: **THE BOARD OF DIRECTORS**

CHAP VIII SECTION 1.1: **Audit comitee**

In a dynamic vision of governance in so huge oil research and development projects, national companies or multi national operators can go over using the expertise of an audit comitee which would have as mission to define:

The organisation and hierarchical brigde framework of auditor's positions in subsidiaries with the holding audit departement and audit comitee.

The mission of each hierarchical audit position level

The functionning and work framework linking the three hierarchical audit functions levels in compliance with international and professional standards of audit practice.

Le planning d'exécution des différents types d'audit à accomplir jugés par eux pertinents, utiles, stratégiques et opportuns.

The action plan of various types of audit to achieve, judged by them relevant, useful, strategic and Timely.

To collect holding internal audit works, which are fueled by audits coming from subsidiaries and use them to build some audit tracks for external audits to the national company or to the operator and even those that are diligented by the initiative of audit comitee.

It's important to notify that for the succes of a research projets, audit intrude itself for huge amounts of money are invested in a highly risks sector.

The various types of contract, notably the oil production share contract, the join venture, still integrate some acces contract clause to the acounts audit or the existence of audit functions in each firm when it is to deal with an oil national company.

CHAP VIII Section 1.2 **parents company internal auditor (Holding)**

Dwell an unavoidable actor of governance because it has a lot of missions consisting to:

Crop and command internal subsidiaris auditors about that achievement of audit, judged relevant, useful, strategic and timely

decide and plan the various types of audit achievable notably, organisation audit, Financial and accounting audit, operational audit,logistic audit, and audit à blanc needed to prepare the reception tracks of external auditors in order to ease its mission and its diligence.

CHAP VIII Section 1.3**.the subsidiairy internal auditors**

Internal auditor, the incontournable actor of governance.

Independant evaluation of risk management process, and leader of firm governance control

Definition of internal audit standard IIA 2110 2120

CHAP VIII Section 1.4.1**: THE INTERNAL CONTROL**

According to the standards 2110, the internal auditor must evaluate and formulate appropriate recommnadations to improve organisation governance process for:

-Strategic and operational making decisions

-Monitor risk management process and control

Controle efficace management of the firm assortie d'une obligqtion to report.

Norme 2110 A He must assess the conception, the implemention and the efficacity of objectves.

Norme 2110 B The internal auditor must assesss wherther the governance of information systems support the starategies and the objectves.

III 2 5 Internal auditor of a partnership "joint operating agreement"

L'auditeur interne des filiales

Support the stragies related to the various stages of the project in relation with the type of contrats, in the case of a join venture, it stands out to controle the application of the common strategic frame of the contract or of the partnership.

HE stands out to command the implementation of relevant tools and to control its devices at the internal control depicting hazard management and control tools disfunctions.

The objectives of the organisations

Norme 2120 The internal auditor contribute to the improvement of risks management.

CHAP VIII Section 1.4.2: **THE INTERNL CONTROL FOR A GOOD GOVERNANCE**

INTERNAL CONTROL FOR A GOOD GOVERNANCE OF ADMINISTRATIVE ORGANISATION					
ORGANISATION	**CONTEXT**	**RISKS**	**PREVENTIVE RISKS**	**Exemple typique de dysfonctionnement**	**Mesures préventi typiques**
Does the entity have a clear definition of its responsabilitiees?	No	Mission confusion	Define clearly the functional responsability		
Each of the agent is well posted on his postion. Such indicated his contract or such represented on the chart flow. ?		Functional and operational dysfunctions	Reframe the missions of personal badly employed or used.	-personal of common affairs to the process of operational demands -operational executive willingly commited to au the purchase demand process (whereas exist a logistic responsible for operation purchase demands.	
All the personal have adequate competences?		Destruction of the productivity	-Test the personnal -Form the personnal -Recycle the personnel		
Is the coordination well ensured between the set of function?		-Dysfonctionnement -Blocus -Baisse de productivité	1 document de processus d'entreprise générale.		
Is the coordination well		Surestimate or under	-consolidated		

ensured between the interface functions? (Ressources humaines finances)		surestimate costs	financial statements without taking in account supports human Ressources (departure in retirement, paid days off).			
Is the coordination well ensured between the interface functions?			-state of costs, travels, and missions -consolidation of spare parts , whheels -bureautiques, appro stockés et non stockés alimentatant l'administration.			
Is the coordination well ensured between the interface fonctions (human Ressources and management control)		Difficulty to control the managemnt of performance indicators		-Payroll non available Revenus de personnes physiques Fiscal wages Book non valuable.	-Put the wage Book,and Fiscal wage Book at the Cost control disposal, le	
Is the coordination well ensured between the interfaces functions (Human resources and safety environnement Departement)?		Competence confusion of the administration of montées son site	-specify in the administrative manual -the competence of releve administration montés sur site(either Human ressources or the department of operations) -The competence of absence autorisation for gointg to the site (soit le Département RHou HSE)			
Is the coordination well ensured between the interface functions (Ressources humaines HSE)		-confusion in the competence of autorisation site acces d'absence (between the human Ressources management ,safety departement and the operation management)	-cofusion in the competence of autorisation site acces d'absence (between the human Rssouces,the safety department and the operation departement			
Le contrôle interne mise en place garantie que les politiques de l'entreprise sont mises en place en temps voulu ?						
Les actions et processus engagées dans l'entreprise sont cohérents entre elles et avec la politique de l'entreprise ?						

CONTROLE INTERNE POUR UNE BONNE GOUVERNANCE DES STRUCTURES DES ACHATS ET DE LIASON						
Is the purchase service is attached to the General direction?	The chief executif is Technician ro executive in oil field and have good knowledge of oil Material	Probability by the chief executive officer to abuse of the purchase treshold	Verify if the chief executive officer abuse of his purchase power through justified material purchase request or unforseen by him or by the responsibles of entities, contrarily to the strategic plan.	If the hazard is confirmed.	Validation level of Material purchase requests to a significant level must be authorized by the holding. . -Axe the relevance and the necessity of Material purchase requests at the purchase level, at the operations level. (Operational action plan support, operational strategy)	Help for costs economy
	Le DG est de profil administrateur et ne maitrise pas trop le	Probabilité de ne pas abuser de	Vérifier si le DG abuse de son pouvoir d'achat		. - Niveau de validation des DA à une hauteur d'une	Help for costs economy

	matériel technique et pétrolier	leurs positions structurelles privilégiées	par les demandes d'achats non justifiées ou imprévues		somme significative doit être autorisée par le holding -Axer la pertinence et la nécessité des Demandes d'achat au niveau des opérations (action plan operational supportl, opérationnal strategy)	
Is the purchase service attached to the operations service?	The operational Manager desire to have the operations and technical Material purchase control.	Probabilité d'abus de positions structurelles privilégiées	Verify the relevance and the operation requests periodicity as regard the project action plan.			
Is the purchase service attached to the technical direction? (More acive research of technical solutions, not an independence neither ni costs optimisations)		Risques perceptibles du choix structurel	Verify logistic and purchase coordination is not under the influence of the demander operational frame. -verify the autonomy of the purchase and logistic in the choice of suppliers et actions plans).			
Le service des achats est-il rattaché la direction technique (Importance des achats dans les enjeux de couts)	Contexte pratique dans une phase ou les achats occupent une place cruciale dans le projet ou une structure manipule d'énormes flux de stoks, d'articles ou de services	Perceptible risks of junction peronal making the tecnic service.	Ensure of the moral probity of the , taken on to join the technic service.			Doesnt take away the junction agents from from rejoicing to be in goog moral probity Take away the junction personal from …. …….
Le service des achats et il rattaché à votre logistique (recherche d'efficacité des appro)			Conséquences perceptibles des choix structurels			
CHAP VIII Section 1.4.3:**INTERNAL CONTROL FOR A GOOD GOVERNANCE AND FINANCIAL RELIABILITY**						
Is there a reciprocal control device réciproque between functions of						

operational process?						
Is there a concordance Device between the cost control function and the accounting function.	Non	Difficulties to master thenext year (coming) Budget	-analytical and accounting reconciliation Tools.			Mettre en lien le Budget Exercice prochain et le Budget des entités pour une automatisation instantannée des données budgétaires. (Par le CDG, contrôle budgétaire).
Are hiring prevision taken in charge in the prospective vision of the sale force dynamics?		Operational Personal invoicing Difficulties	Personal costs structure computation to ensure a good mastery of personal costs and a good determination of margins.			
Are the needs forseeble and exacts ?			-incomplte Risk identification of operational and functional Needs. Files or less optimal.Are			
La						

NEEDS DETECTION						
Are Needs forseeble, complete and exact?				incomplte Risk identification of		

				operational and functional Needs Fichiers défaillants ou moins optimales		
Passation des commandes						
Are the documents used inadequate?? Y'a til insuffisance de formalisme ?						
Les imprimés ou documents d'achats sont-ils bien protégés, conçu avec sécurité pour empêcher des tricheries ?						
La qualité des contrats passés par l'entreprise est-elle vérifiée ?						
Les bons de commandes sont-ils proprement numérotés ou authentifiés ?						
Procédures des suivis (de l'expression besoin à réception Matériel						
Are the fromalization of purchase hypothesis clear?						
Discrepancy between the concepts defined in the objectives and those quatified in the monotoring?						
Y'a til une cohérence entre les quantités et les qualités des produits prévus à recevoir,commandées,livrées,recues. ?						
Le mode de traitement des données permet il le rapprochement des données entre comptabilité financière et de gestion						
Y'a-t-il un système d'information signalant la défaillance du fournisseur dans le suivi des affaires en cours ?			Gérer les achats, administrer les anomalies, adopter les attitudes réactives	Apprendre tard les déconvenues ou anomalies du fournisseur. Ne pas réagir à temps aux incidents. Insuffisance de procédures t de suivi externes		
Est-ce que l'entreprise contrôle 'existence des accusé de réception ?						
Are the reactives attitudes adaptedet to the failure of a supplier biaséd service						
Processus des achats						
Are the means put at the disposal of the purchase departement sufiscient to achieve the objectives						
Is there a efficient strategy characterized by temporary high costs targetting to increase the firm's power?						
Does the company has an information system allowing them to be a laffut of new customers technologies?						
Des the firm have a supplier politcs						
Are the human ressources able to face the new technologies?						

		Manage the purchases administer the hazard, adopt the reactive attitudes	To hear late the supplier deconvenuses Not to react on time Insufficient procedure and Timily monotoring			
Are the means put at the disposal of the purchase departement sufiscient to achieve the objectives						
Is there a efficient strategy characterized by temporary high costs targetting to increase the firm's power?						
Does the company has an information system allowing them to be a awareof new customer's technologies?						
L'entreprise a-t-elle une politique de soutien aux fournisseurs menacés ?						
Are human Resource able to face the technology evolution?						

CHAP VIIII **SECTION MANAGEMENT ACCOUNTING (cost control)**

The management accounting is the bacbone of management in the oild field where huge amounts of costs are invested.

In this effect, to better elaborate the management reinforcement tools models, lt's obvious to draw an assessement board of management accounting appraisal of certain type's oil companies which present some control weakness because of a lack of tools for some, and because of a lack of standard structure defined by the governance.

CHAP VIIII THE section 1: **SECTION 6.1 COMPLIANCE ASSESSEMENT TABLE OF THE MANAGEMENT ACCOUNTING PRACTICES**

	MANAGEMENT ACCOUNTING AND COST CONTROL TOOLS	**CURRENT PRATIC EVALUATION**	**CONSEQUENCES OF NON PERFORMANT PRACTICES**	**STANDARD PRATIC RECOMANDATIONS**	**TOOLS TO IMPLEMENT**
1	**COST STRUCTURE MODEL**	Lack of costs structure in a Firm		**Establish a compulsory cost structure**	**-unit labor cost -operationnal personal Daily costs -- Administrative personal Daily costs -Indirect costs structure -Direct costs structure**
2	**FINANCIAL MODELISATION**	Management Board without sensitivity analysis for internal, subsidiaries, and partners accounts	Difficulties to know in a real time the financial loss risk, while running or when it's about Financing	**Monetary exchange** **Financial investment Risks assessment Table**	**Monetary exchange risks assessment structure -cash sentive analysis -Inventory sensitive analysis - -financial balance formulas () -Business plan in stand by -FR in daily turnover (in operation) - FR in daily turnover (in stand by) -Financial investment Risks assessment**

					Table -
3	**MANAGEMENT MODELISATION**	Lack of follow up work tools in the Firm			
4	**ASSET DEPRECIATION MANAGEMENT**	Lack of consideration for a ultra intense declining drilling Rig activity		Compute the drilling Rig depreciation considering the extraordinary ultra intense activity	
5	**GESTION DE LA MAINTENANCE ASSISTE PAR ORDINATEUR**		**Difficulties to determine costs by spare parts and equipements**	**Implement the GMAO Software**	
6					

CHAP VIIII section 2: **THE MAIN DIRECTIVES LINES OF THE ACCOUNTING MANAGEMENT CONTROL REINFORCEMENT**

Meanwhile the financial and accounting focus on retracing and reporting the daily and Operatinal transactions through the income statement and synthetical documents, the management control focuses to reinforce son bras armé that is Nothing else that the cost control.

The mastery of cost structures in each firm (holding, subsidiaries or partners)

The building of financial modelisations to reinforce in details the management and costs control

The building of management modelisation

The optimisation of assets depreciation management

The analytical reinforcement of costs control Assisted by computer maintenance

The development of this highly strategic part for the economic success of the firm is going to be articulated through the implementation of management tools modeles herein quoted and around a set of arguments supporting the interest and the usable mode of these tools used in each of those companies taking part in any kind of contratcts developped in upper ligns.

It’s important to notice that the operational failures find on one hand their causes in the weakness of management control, which release important margins serving to optimise the financing of operational needs or the financing of innovative state of art tools required by this job of high requirements in any stage of the research where failure results in loss of huge amounts of money.

The developped models here are the management model tools that unused by certain companies where the executive training is not so much regular

On the other hand, at the contrary, are developped and proposed after an experience return drawn from the notoire weakness of certain management control functions in oil firms.

The presenation of those tools derive from usable models in subsidiaries, to the models used in parent companies.

As regard partership contracts, the presentation of those tools derives from usable tools.

This presentation model is therefore implemented to ease the logical demonstration of structure models monitoring the cost in subsidiaris and in partnerships, precisely at the general partnership.

CHAPVIIII **THE MASTERY OF COSTS STRUCTURE**

We first present the costs structure model of parents' companies and of general partners who have the vocation to strive to succed to get a real mastery of cost structure of firms with which they work.

CHAPVIIII SECTION 4: **PARENT'S COMPANY AND SUBSIDIARIES COSTS STRUCTURE**

INDIRECT COSTS	**HOLDING COSTS**			
Purchase				
Transport				
Extern service A				
Eternal service B				
Personal charges				
	SUBSIDIARIES COSTS			
DRILLING ACTIVITY				
DIRECT CHARGES	**AMOUNT**	**INDIRECT CHARGES**		
Purchase		Purchase		
Materail & equip		Stock variation		
Chemical product		Transport		
		External service A		
		Eternal service B		
		Personal charges		
INTEGRATED LOGISTIC SERVICES				
DIRECT CHARGES				
Purchase		Purchase		
Materail & equip		Stock variation		
Chemical product		Transport		
		External service A		
		Eternal service B		
		Personal charges		

CHAPVIIII Section 5: **COST STRUCTURE TABLE MODEL OF A DRILLING COMPANY BID RESPONSE CONTROLED BY THE HOLDING COMPANY HOLDING IN PACKAGE PROJECT.**

The parent company must have on the basis of audit process undertaken in subsidiaries and on the basis of Bid responses, costs structures of all the production value chain that they have to pilot.

Whatever they dwell in the holding statute of non operator (no permits managers), or they act as operator

DRILLING PROJECT IN PACKAGE					
	SUDSISIARIES COSTS	**ACCOUNTING NATURE**		**SUDSISIARIES COSTS**	**ACCOUNTING NATURE**
DRILLING	Direct costs	-Personal -Maintenance (spare parts, consuming) -Logistic -Catering	**TRS**	Direct costs	-Personal -Maintenance (spare parts, consuming) -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)			Indirect costs(splitted)	
MUD LOGGING	Direct costs	-Personnel -Maintenance -Logistic -Catering	**PUMPING**	Direct costs	-Personnal -Maintenance -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)			**Indirect costs**	
			FILTRATION	**Direct costs**	-Personnal -Maintenance -Logistic -Catering
				Depreciated costs	
				Indirect costs	

SECTION CHAP VIIII section 6: THE **GOVERNANCE CONTROL METHOD OF PACKAGE OPERATIONS SALE PRICE**

There are two main tools that are used by the governance control in the daily rate sale price determination wich in reverse turn leads to the consuming expenses computation.

Those two tools are:

- The daily operational costs computation and (Derived from accounting Management subject)

- The break even. (Derived from an analytical Accounting subject)

The governance control method of package operations sale price is a set of costs items that need to be computed in daily mode in order to define the total amount of daily consuming expenses wich would help compute then the daily sale rate of the total operation package.

In effect, the determination of daily sale rate derives from a minitieus daily operation costs computation in respect with the required operational intervention days.

CHAP VIIII section 7: **PACKAGE OPERATIONS SALE PRICE GOVERNANCE CONTROL THROUGH DAILY CONSUMING EXPENSES**

Let us make theses operations daily sale price demonstration with some hypothetical costs data considering their individual operations days in respect with the contract.

To fix a sale price of each activity or services to sell, the contractor must necessarily have the mastery of each accounting nature of its activities.

Without this cost mastery, it is almost impossible to determine a reliable and analytical sale price allowing to intrude it self on a competitive market valued for quality, price consideration

This costs control strategy by the governance is the same operating by a subsidiary cost managerial staff wich provide with meticulous management ambition

In effect, the bid offer lanched to the contractor need a budget set up for each activity previewed for the operations campaign.

Ce ci étant, it's important to notify here that each activity or service has to carry out the contract in function of an intervention planning relevant to the number of specific days.

The daily rate set up level, must be fixed in assessing the reference market price**.**

This reference price will help us set our price in function of the competition so as not to propose a rejected bid response du to a non acceptable core activity or service sale price.

In effect, the daily rate set up has been multiplied by the number of intervention days.

The recommendation done is to set up Daily charges tables, in order to get the daily cost to imputer to the any budgetary in function of the operational Time limit.

This method gives to the governance a real insurance of budgets subjected to the subsidiaries

.

CHAP VIIII section 8: **SYNOPTIC CONTRACT FOR A WELL DRILLING**

Activités	**NB OF DAYS**	**USE RATE**	**PERS NB ON BOARD**	**COST DAILY RATE (XAF)**	**DAILY COSTS (USD)**
RIG MR8000_Forage	330	90%	64		
RIG MR3500_Forage	50	14%	48		
COMPLETION	75	21%	48		
FISHING	350	96%	2		
TRS	330	90%	4		
MUDLOGING	330	90%	10		

CHAP VIIII section 9: **A BUSINESS ANALYTICAL ACCOUNTING**

WITH CLE DE REPARTITION AFFECTATION

A-DIRECT COSTS

Activity	N day	Use rate	pers	salay	Eq MAT	Repair costs	Ext svce	Othe serv	Ch F charges	P CH	Mat et F	Dpre	Other charges	Taxes	Total	
Drilling 1	225			1427272 USD	7721USD	289090 USD	407272 USD			27272USD		1454545 USD			3613172	57%
Drilling 2	50			170909 USD	3454 USD	163636 USD	421818 USD			12272USD		545454 USD			1317543 US	20%
completion	65			170909 USD	3454 USD	163636 USD	421818 USD			12272USD		0			771279	12%
FISHING	350			218181USD	0	0	0			0		0			218181USD	3.4%
TRS	89			10909 USD	1272 USD	14545 USD	0			2727 USD		0			158544 USD	2%
MDL	225			120000 USD	1500USD	16363 USD	83636 USD				25454 USD	0		67272USD	221499 USD	3%
TOTAL				2247271 USD	17401 USD	647270 USD	1334544 USD			54543USD		1999999 USD			6.301.028 USD	100%

B-INDIRECT COSTS

Activity	N day	Use rate	pers	salay	Eq MAT	Repair costs	Ext svce	Othe serv	Ch F charges	P CH	Mat et F	Dpre	Other charges	Taxes	Total	
Drilling 1	225			1070909 USD			241900 USD				25454 USD		627272USD	67272 USD	1468262 USD	

DIRECT COSTS +INDRECT COSTS (Total costs) WITHOUT CL DE REPARTITION

Activity	N day	Use rate	pers	salay	Eq MAT	Repair costs	Ext svce	Othe serv	Ch F charges	P CH	Mat et F	Dpre	Other charges	Taxes	Total
Total				3318180 USD	17401 USD	647270 USD	1576444 USD	0	0	54543USD	25454 USD	1999999 USD	62727SD	67272 USD	7769290 USD

Drilling 1	225			218181 USD							25454 USD		627272USD	67272 USD	378179 USD	
Drilling 2	50															

TOTAL COSTS WITH THE PART OF THE WEIGHT OF CLE DE REPARTITION

Activity	N day	Use rate	pers	salay	Eq MAT	Repair costs	Ext svce	Othe serv	Ch F charges	P CH	Mat et F	Dpre	Other charges	Taxes	Total
Total				3318180 USD	17401 USD	647270 USD	1576444 USD	0	0	54543USD	25454 USD	1999999 USD	62727SD	67272 USD	7769290 USD

The first account we are going to demonstrate is the personal account wich encompass in accounting, internal and external services.

Because one of the crucial questions that seemingly can evade the managers control when theres's no perfect governance or management, is the external contrat that the operational managers can hire willingly to increase the invoice in order to take profit of the created financial margins.

This account is undoudtfully one of the most important after the purchase costs.

So a severe attention needs to be put in this external personnal service account.

CHAP VIIII section 10: THE REFERENCE BASIS OF ACCOUNTS CONTROL

CONTROL ACCOUTNT PRIORITY ORDER

	PRIORITY ACCOUNTS CONTROL
1	**INVESTMENTS ACCOUNTS**
2	**PERSONAL CHARGES (internal and External)**
3	**MAINTENANCE ACCOUTS**
4	**(Peines et soins)MOBILISATION ACCOUNTS**
5	**CHEMICAL PRODUCT ACCOUNTS**

CHAP VIIII section 11: **OPERATIONS SALE PRICE SET UP**

DETAILED SALE PRICE BY ACTIVITY

Activités	NB OF DAYS	USE RATE	PERS NB ON BOARD	SALE DAILY RATE (XAF)	SALE DAILY RATE (USD)
MR DRILLING_RIG 1	330	90%	64		
Personal					
Repair cost					
Consuming goods					
Logistic					
catering					
Total					
DRILLING RIG MR2_	50	14%	48		
Personal					
Repair costs					
Consuming goods					
Logistic					
catering					
Total					
COMPLETION	75	21%	48		
FISHING	350	96%	2		
TRS	330	90%	4		
MUDLOGING	330	90%	10		

CHAP X**: DAILY AND SALE COSTS DETERMINATION OF THE VARIOUS ACTIVITIES RESULTS**

DETERMINATION OF THE VARIOUS ACTIVITIES RESULTS

ACTIVITY	NB OF DAYS	USE RATE	PERS NB ON BOARD	SALE DAILY RATE (XAF)	SALE DALY RATE (USD)	PROFIT (XAF)	PROFIT (USD)
DRILLINH RIG 1	330	90%	64				
Personal							
Repair cost							
Consuming goods							
Logistic							
catering							
Total							
DRILLING RIG Z	50	14%	48				
Personal							
Repair costs							
Consuming goods							
Logistic							
catering							
Total							
COMPLETION	75	21%	48				
FISHING	350	96%	2				
TRS	330	90%	4				
MUDLOGING	330	90%	10				

CH CHAP X section 1: **REFERENCE MARKET PRICES**

6.2.3-OPERATION SALE PRICE CONTROL THROUGH DAILY BREAK EVEN

PROFIT CENTER	**DRILLING**	**CASING**	**PUMPING**	**TOTAL**
SALE	**26000**	**12000 USD**	**8000 USD**	**46000 usd**
FIXED CHARGES	**4 000**	**1000 USD**	**800 USD**	**5800 USD**
VARIABLE COST MARGINS	**8000**	**4000**	**3800**	**15800**
TOTAL COSTS	**12000 USD**	**5000 USD**	**4600 USD**	**21600 USD**
MARGIN ON VARIABLE COSTS	**14 000 USD**	**6 000 USD**	**3400**	**24 400 USD**

BREAK EVEN COMPUTATION

The Break even computation will help us get the maximal costs summit where no profit is supposed to be created but where the Total costs equal the Total sales.

The obtention of this Total Break even will be the adjusted basis from wich in the frame of control,we could estimate the possible added amount in order to get from there,the possible elasticity that can be created ,considered like the margin.

OVERVIEW EXAMPLE:

BREAKEVEN:

Example of operations Days numbers: 225 days

Let’s divide the Break even by the number of operational days.

Breakeven/number of operational days

/225=18 000

Lets’s study the elasticity between this daily cost and the reference Market daily costs on a 365 daily costs Basis,because it’s not obvious to analysis the overall market prices from a 225 daily basis

Let’s make the Breakeven daily costs extension till 365 Days From the operational daily costs

2nd shape: 33 000 X 30 days= 990 000 Monthly costs

: 990 000:30= 33 000 daily costs

This daily costs at the Breakeven point upper mentioned is praticable, when you have a limited operational days like 225 days, 265 days etc….

The break even daily adjusted basis costs, chosen: is to be analysised with the reference market sale daily rate.

REFERENCE MARKET PRICES

	COMPANY A	**COMPANY B**	**COMPANY C**	**COMPANY D**	**COMPANY E**
REFERENCE PRICES	29 000	34 000	36 000	35 000	

Results hypoyhesis 1 with …. Daily costs

Results hypoyhesis 2 with …. Daily costs

IF all my Business cost is for instance 15 000 USD by day and I Project to Budget one more month to forsee any financial breach.

REFERENCE MARKET PRICES

	COMPANY A	**COMPANY B**	**COMPANY C**	**COMPANY D**	**COMPANY E**
REFERENCE PRICES	29 000	34 000	36 000	35 000	

Results hypoyhesis 1 with …. Daily costs

Results hypoyhesis 2 with …. Daily costs

Fundmental formula:

Profit=Sale price Less costs=

Profit=8000 Less 2000=

So The sale price=

CHAP XI **SECTION 1- COSTS CONTROL STRUCTURE TABLE MODEL OF THE DRILLING SUBSIDIARY BID RESPONSE BY THE HOLDING IN PROJECT WITHOUT PACKAGE**

(DRILLING AS CORE ACTIVITY)

DRILLING PROJECT WITHOUT PACKAGE					
	SUDSISIARIES COSTS	**ACCOUNTING NATURE**		**SUDSISIARIES COSTS**	**ACCOUNTING NATURE**
DRILLING	Direct costs	-Personal -Maintenance (spare parts, consuming) -Logistic -Catering	**TRS**	Direct costs	-Personnel -Maintenance (spare parts, consuming) -Logistic -Catering
	Depreciated costs			Depreciated costs	

CHAP XI **SECTION** 2: **COSTS CONTROL STRUCTURE BUDGET TABLE MODEL**

EXERCICE n+1 DRILLING IN PACKAGE CONTROLED BY THE PARENT COMPANY

DRILLING PROJECT IN PACKAGE					
	SUDSISIARIES COSTS	**ACCOUNTING NATURE**		**SUDSISIARIES COSTS**	**ACCOUNTING NATURE**
DRILLING	Direct costs	-Personal -Maintenance (spare parts, consuming) -Logistic -Catering	**TRS**	Direct costs	-Personnel -Maintenance (spare parts, consuming) -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)	**- HEAD OFFICE** **-Human Ressources** **-Common affairs** **-**		**Indirect costs(splitted)**	**- HEAD OFFICE** **-Human Ressources** **-Common affairs** **-**
MUD LOGGING	Direct costs	-Personal -Maintenance -Logistic -Catering	**PUMPING**	Direct costs	-Personal -Maintenance -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)	**HEAD OFFICE** **-Human Ressources** **-common affairs** **-**		**Indirect costs(splitted)**	**HEAD OFFICE** **-Human Ressources** **-Common affairs** **-**
			FILTRATION	Direct costs	-Personal -Maintenance -Logistic -Catering

				Depreciated costs	
				Indirect costs	

The table here posted reflect the case study we did upper as a package oil activities managaement case.It's logic to remind that its case study should be it a non package or of a special commercial term should be managed as the varoius tables models have been presented to you.

CHAP XI: **SECTION 3 PRODUCTION SUBSIDIARY OPERATIONAL COSTS STRUCTURE MODEL**

SUBSIDIARY PRODUCTION (operational costs structure)					
	SUDSISIARIES COSTS	**ACCOUNTING NATURE**		**SUDSISIARIES COSTS**	**ACCOUNTING NATURE**
FIELD1	Direct costs	-Personal -Maintenance (Spare parts, consuming) -Logistic -Catering	**CAMP 2**	Direct costs	-Personal -Maintenance (spare parts, consuming) -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)	**- HEAD OFFICE** **-HR** **-Moyens Généraux** **-**		**Indirect costs(splitted)**	**- HEAD OFFICE** **-HR** **-Moyens Généraux** **-**
FIELD 3	Direct costs	-Personnel -Maintenance -Logistic -Catering	**CAMP 4**	Direct costs	-Personnel -Maintenance -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)	**HEAD OFFICE** **-HR** **-Moyens Généraux** **-**		**Indirect costs(splitted)**	**HEAD OFFICE** **-HR** **-Moyens Généraux** **-**

CHAP XI: **SECTION 4: PRODUCTION SUBSIDIARY OPERATIONAL COSTS STRUCTURE MODEL**

PRODUCTION SUBSIDIARY OPERATIONAL COSTS STRUCTURE MODEL

BUDGET EXERCICE n+1 CONTROLED BY THE HOLDING.

SUBSIDIARY PRODUCTION N+1 BUDGET					
	SUDSISIARIES COSTS	**ACCOUNTING NATURE**		**SUDSISIARIES COSTS**	**ACCOUNTING NATURE**
FIELD 1	Direct costs	-Personnel	**CAMP 2**	Direct costs	-Personnel

		-Maintenance (PDR,consuming) -Logistic -Catering			-Maintenance(PDR,consuming) -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)	**-HEAD OFFICE** **-HR** **-Moyens Généraux** **-**		**Indirect costs(splitted)**	**-HEAD OFFICE** **-HR** **-Moyens Généraux** **-**
FIELD 3	Direct costs	-Personnel -Maintenance -Logistic -Catering	**CAMP 4**	Direct costs	-Personnel -Maintenance -Logistic -Catering
	Depreciated costs			Depreciated costs	
	Indirect costs(splitted)	**HEAD OFFICE** **-HR** **-Moyens Généraux** **-**		**Indirect costs(splitted)**	**HEAD OFFICE** **-RH** **-Moyens Généraux** **-**

This thesis development don't allow us to go so far in the overall aspects of management demonstration.

However, the first cost calcul made, will allow us to present one of the major control tool useful to control the one of the more weighting accounts that needs more attention in controlling the cost structure.

Synoptic view of the cost structre here upper presented

CHAP XI **SECTION** 5: **THE MAIN PARTNERS COST CONTROL STRUCTURE MODEL**

The main partner is controlled as a sole corporation on the ordinary accounting accounts that they handle.

The only difference is that

THE AUTHOR OF THE ACTION	**ACCOUNTS CONTROL**	**ACTIONS TO UNDERTAKE**	**RESULTS**	**CONCERNED**
-The chartered or certified accountant -The external or the internal auditor	The partnership accounting accounts revision	-Revise the receivables - - -	**-Net profit**	**-Each partner** **-The parnership**
	AUDIT			
-The representative of	The tax audit of partnerships	**Determine:** -	**-The share**	**The partnership**

partnership -	The income audit	**-Exceptional or special rules for deductions** **-deductible Added value Tax collectible added value Tax.**	**of net profit or loss** **-special deduction** **-credit**	
The statutory auditor			**The partners or the partnership Accounts certification**	**-The partners** **-The partnership**

CHAP XI **SECTION** 6: **THE TAX AUDIT OF PARTNERSHIPS**

For audit of partenership for tax return, the tax services dispose of a centralized audit system to audit partnerships at the partnership level. Any adjustments to the partnership return are handeled at the partnership level, unless the partnership opts to push out a deficiency to its partners.

The conventional and standard business partnerships preview that partnership must annually name a representative partnership on the partnership return.

Thus, the partnership has the sole power to bind the partnership in an audit.

In general rule, the partnership pays no tax on partnership income.

Therefore, it is to the representative partnership to start by determining:

-the share of partnership net profit and loss,

-special deduction,

-credit,

Whether or not distributions are received from the partnership.

In fact, the representative partnership are going to base their audit duties on the

CHAP XI SECTION 6.1 **THE SHARE OF PARTENERSHIP NET PROFIT**

The share of partnership net profit is generally based on proportionate capital interest.

The share that the partner benefits from a partnership derive from the proportion of….

The representative partnership has the responsibility to control the guarantee of the interest gained on proportionate capital.

For that, they must ensure if the interest gained on capital remains accountable in the partner accounts or whethere it is subject of a cancelation or of a reduction du to any comptes à rebours by the partnernship to settle with other partners.

IF there is no compte à rebours, the proportionate capital interest is going to be the main basis of the partners's deduction.

IF there is a compte à rebours, the amount of the deduction is going to be based on the rest of interest account that indicates the range of the deductible amount relevant to the intrest level calibrated to deduct.

CHAP XI 6 SECTION: 2 **the audit of special deduction for tax return partners**

The representative partnership has the responsability to ensure if the various partners deserve special deduction du to severall reasons.

CHAP XI 6 SECTION: **2.1 the audit of distribution received by a partner from a partnership**

This type of audit aims at determining:

- The amount of the dividends received by the partner,

-the amount of bonus

- And the amount of charitable deductions received from the government or a non governemental organism.

CHAP XII: **PARTNERSHIP ACCOUNT CONTROL**

CHAP XII: **Section 1: partnerships Accounts control**

		A	B	C	Total
PL Ratio		**50%**	**30%**	**20%**	
Beginning capital blance		**30000**	**10000**	**5000**	**45000**
Net income					**18250**
5% Interest		**1500**	**500**	**250**	**2250**
salary					**6000**
Bonus					**1000**
Distribution of residual		**4500**	**2700**	**1800**	**9000**
Total		**6000**	**9200**	**3050**	
Ending capital Balances		**36000**	**19200**	**8050**	

CHAP XII: **Section 6.2.2.5.6- Method of accounts control**

CHAP XII: **The corporate or parternership governance must forsee that accounts control must be**

CHAP XII: **Section 6.2.5.2.7- Computation of the adjusted basis for the deductible Tax**

The adjusted basis is defined as the property contribution wich come as of the first considerable item before others items that come in diminution or increase that in all help determine the adjusted basis, in a word the amount to impute Tax.

Original Basis

+income from partnerships

-distribution losses

=Adjusted basis

CHAP XIII: **SECTION 2: TABLE OF THE COSTS CONTROL STRUCTURE MODEL FOR ASSOCIATES PARTNERS**

Last month days accounts **Invoices Recetion** **Appel de fonds 19Th** **7 TO 10 days to contribute** **Monthly**

DEBTS SETTLMENTS	**CHECKLISTS**	**RESULT**		**SHARED CHARGES TO CONTROL**
Social & Fiscal debts	**-which is your Montly total sale -Tax return -Purchase -Tax deductible**	**ADJUSTED BASIS**		**- Salaries - Purchase - Ext svces - Transport - Tax - Interest - depreciation**
Other supplies debt				
Bank loan	**-Remainning capital Monthly paid capital -**	**MONTHLY DEPRECIATION TABLE**		

CHAP XIIII **section1: BUILDING OF CORPORATE FINANCIAL MODELISATION**

CONSTRUCTION OF CORPORATE FINANCIAL MODELISATION

COUNTS DESCRIPTION	**CURRENT PRATIC EVALUATION**	**PRATICAL RECOMMANDATION STANDARDS**		
cash	**No sensitivy analysis**	Present the accounts with some sensitive inputs		
Inventory	**No sensitivy analysis**	Present the accounts with some senitive inputs		
Investments	**No sensitivy analysis**	Present the accounts with some senitive inputs		

Section 1.1 the different types of sensitive analysis

Section 1.1.1 Cash sensitive analysis

Section 1.1.2: Inventory sensitive analysis

Section 1.1.3: Investment sensitivy analysis

CHAP XIIII **Section 2: Investment sensitivy analysis**

The research and development and the oil production, have faced recurrent and huge consequences du to any crises occurred in the field of mining ressources extraction, and even to some other crisis occurred in other business fields, at international level.

The international impact of those crisis at the point of view of the world economy intrude today the necessity to control all the extractive minining ressources with the help of modern and sensitive analysis tools.

This becomes more interesting to allow to the firms to get in real time a good reading of the Macroeconomy environnement in wich they evolve.

Thus, here is an exemple of a sensitive analysis table wich dispose at certain dates, some exchange rates, and raw material prices that permit, through a predefinite set up in a budget outlook page, automatised costs formula which provide by fluctuation period, the raw material value compared to his unit price.

This presentation allows to know at each fluctuation cost wchich is the value of our raw material, and allow us to calculate the amount of our investment targeted in function of a given quantity level to produce or to appropriate.

The modern time through wich we run, minés by events wich destabilise in a record time the integrity chain of the global world, no longer tolerate blind Management as regard the mastery of values.

The underling such as:

- the change rates

-The interest rate

-the raw material prices

-The stock value.

Here is a model of a sensitive analysis table wich can be exploitable in any other situations.

CHAP XIIII section 3: **Differential sensitivy analysis Table**

Date	Change Rate	U Baril price	U Amount	Change Rate	U baril price	U Amount
16-1-21	**500**	**70**	**35000**	**600**	**70**	**42000**
25-03-21	**550**	**80**	**44000**	**650**	**80**	
	50 USD	**+10**	**+9000**	**50 USD**	**+10 USD**	

CHAP XIIII section 4: **Economic effects of change rate**

Date	Change Rate	U Baril price	U Amount	Change Rate	U baril price	U Amount
January	**500**	**80**	**40000**	**650**	**80**	**42000**
March	**550**	**80**	**44000**	**600**	**80**	**48000**
july	**600**	**80**	**48000**	**550**	**80**	**44000**
Décember	**650**	**80**	**52000**	**500**	**80**	**40000**

CHAP XIIII section 4: **Economic effect of unit Raw materials fluctuation**

Date	Change Rate	U Baril price	U Amount	Change Rate	U baril price		Change Rate	Unit Baril price	Unit Amount
January	**500**	**80**	**40000**	**500**	**70**	**35000**	**500**	**60**	**30000**
March	**550**	**80**	**44000**	**550**	**70**	**38500**	**550**	**60**	**33000**
july	**600**	**80**	**48000**	**600**	**70**	**42000**	**600**	**60**	**36000**

Those sensitive analysis differential tables are elaborated for two main reasons.

The first stage: During purchase or selling opertaions at export or import.

The second stage: In a period of financial statements consolidation, annual or synthetical intermediary documents.

Operationnality rules: The comparison must still be based on:

1- Dates to allow gaps analysis

2- The gaps analysis are going to allow us to determine gains or loss.

3-The weighted average rate to determine either, average unit dollard, or the average unit baril.

CHAP XIIII Section: 5. FINANCIAL INVESTMENT RISKS ASSEMENT

Financial Investments present many risks that turn around the temporary factor in any oil business companies.

When a project is designed and lanched, there are obviously some risks, considerd like current financial risks, whereas when a project is designed, and a business plan to lanch the project is set up tool, then appear what we can qualify as characteristic risks .

Those characteristic risks are characterisez by the stand by period wich is a period without activity, where the company manage and controle the current needs consisting of taking care of the personnel by allocating wages and expending the medical fares. And on the other hand, by maintanning the company‘s life in reviewing the projects to come.

Thus, when a budget project is set up, it requires to finance the equipements and the materials by the equity’s stockholders.

The FR formula is FR=equity’s stockholders -tangible assets

The equity‘s stockholders are made of:

Own equity stockholder

CHAP XIIII **BUSINESS FINANCIAL CONTROL**

CHAP XIIII section 1: **THE STOCKHODERS’S EQUITY**

STOCKHODERS’S EQUITY	EQUITY ELEMNTS NATURE	EQUITY TO COMMIT
Equity	**Legal and not expendable**	
+Emission allowance	**Legal and not expendable**	
Net Result	**Expendable in positf activity -No result possible in stand by**	**X**
+Depreciation	**No cash**	
+Subvention	**Facultative**	
+ Bank loan	**Remborsable**	**X**

From this designed board, it appears obviously that the equity to finance the assets are in major and regular situations, the net result, and the bank loan.

In case of incapacity to invest, it is given to the subsidiary the investment capacity through equity increases or through the bank loan.

That's why the loan cost is really important to control and to minimise.

Especially since when the company has not yet lanched the operation and has not yet started collecting the sales revenues in stand by period, it will be constrainted to bear or support the loan bank remborsement.

Therefore, some of the conditions to control in stand by period in respect with this here in mentioned aspects are:

-The Bank loan demand date considering the loan effect date, before the operation lanching date.

In fact, it's better for the company to go through a bank loan process when the start date of

Operations is known and near to be lanched.

This is to avoid bearing early the bank loan interest costs.

CHAP XIII section 2: **CONDITION TO CONTROL THE BANK LOAN IN STAND BY BY PERIOD**

CONDITIONS TO CONTROL THE BANK LOAN DECISION IN STAND BY PERIOD

	CONTROL	**STEPS TO CONSIDER TO TAKE THE LOAN**	
	The Bank loan effect date	Consider The operation lanching date(take the loan when the operation date is near & ready to be carried out)	
	The bank loan interest the interest rate		

CHAP XIIII **Section 3: <u>ANALYSIS OF THE BEGINNING OF OPERATION (After stand by)</u>**

After the equity increase, and the the bank loan, the subsisiary has the capacity to control costs.

The question of cost control becomes more crucial when the drilling campaign doesn't take place.

In fact, the FR becomes weak, because the material has been bought during the stand by period.

Tere's a real need to arrimer the FR to the BFE.

CHAP XIIII section 4: **FINANCE MANAGEMENT IN STAND BY WHILE WAITTING FOR THE LANCHING OF OPERATIONS**

: <u>FINANCE MANAGEMENT IN STAND BY WHILE WAITTING FOR THE LANCHING OF OPERATIONS</u>

SUBSIDIARY 1 **REACTION** **CAUSE** **CONSEQUNCES**

Treasury in stand by Diminish Assets Investment Before lanching operations FR insignificant to face current charges

CONSEQUENCES 2:

Request of cash call

--Debt increase

-interest increase

CHAP XIIII Section 5: FINANCIAL INVESTMENT RISKS ASSESSMENT TABLE

FINANCING RESSOURCES	FINANCING %	CONSEQUENCES	ESTIMATED AMOUNT	LOAN RATE	STEPS TO TAKE
Personal fund	0	-high Loan capital cots			Control the share plan option
Money Borrowed from Holding					Cash call without interest.
Bank loan	100 %	Hight Remborsable capital cots	818181	10%	-Negociate the bank loan Asssess the remborsable capital and interest in function of the stand by period and of the year long.

CHAP XIIII section 6: **CAPITAL COSTS CONSIDERING THE STAND BY LENGTH BEFORE OPERATIONS**

To have a good visibility of the Treasury during the stand by period, it’s really important to estimate the lengh that could take the stand by period before the lanchiing of operations.

So done, it should be of a major interest to extend along this period the remborsable capital and interest of the bank loan. :

THE FINANCIAL INFORMATIONS TO MANAGE TO MAKE A GOOD ANALYSIS AND CONTROL

IN DEC N-1: The parent company gave to the subsidiary 200 CFA millions loan remborsable monthly with a 2 % interest in years. The reimbursement begins in January.

The Bank has granted 450.000.000 CFA in January remborsable in years.

COMPUTATION OF THE BANK LOAN MENTIONED IN THE TABLE

For four months of stand by:

Capital=818,181 USD

Monthly Interst rate :(450 000.000 x 10 %) =81 818

Monthly remborsement: 818.181 + (81818) =82636 USD

Four Month Loan Remborsement=82636 USD

X4=

For a year long: 450 000 000 x 10%

CHAP XIIII **Section 7: MONTHLY BUSINESS PLAN CONTROL IN STAND BY**

ACCOUNT NATURE	Dec N-1	Janv	Fév	Mars	Avril	Mai	Juin	Juillet	Aout	sept	Oct	Nov	Déc
ASSETS -sold prerstations -cash call Maison Mere -capital increase **-Financial debt** **LIABILITY** **-Interet sur appel de fond** -capital reduction **-Debt capital** **nterest** **financial Remborsement**	0 3636363.USD	**0** **X** 818.181 81818 **82636**	**0** 818.181 81818 **82636**	**0** 818.181 81818 **82636**	**0** 818.181 81818 **82636**	**0** **818.181** **81818** **82636**	**START OPERATION 0** **818.181** **81818** **82636**						
Total liability	**363.636 USD**						**4958 16 USD**						
ECART													

TOTAL LIABILITY: 859 452 USD

Your are about to lanch operations, when you have already reached such Debts, your finance seems already to be in a bad status.

Comparaison costs in stand by and costs in operations

COSTS IN STAND BY	AMOUNTS	COSTS IN OPERATIONS	AMOUNTS

6.3.5.4 Checklist question to master the financial sentitive informations. In stand by Management

In compliance with the financial information here in mentioned.

1-How much does the appel de fond Make in total during the three-allocation month considering distinctly: the appel de fonds, and its interest till the start operation date?

2- How much does the loan Bank Make in total during the three-allocation month considering distinctly: the cash call, and its interest till the end of June.

A well organized organization will not need cash calls from the mere company, but a non autonomous Business will still be under his parent's support for project financing.

That means, a Drilling company is to be run with parcimony to avoid costs surprise or management surprise.

Normally it's a seasonal activity.

The number of human ressources working in, should be limited to the strict minimum of useful job position as well in the office as in the field.

The costs are to be managed parcimoniously and usefully.

So a good governance is compulsory, including all the governance requimremnts we dealt in this Thesis.

CHAP XIII section 8 :

CHAP XIII section 9: **BFR OPERATING CONTROL IN STAND BY PERIOD BEFORE LANCHING THE OPERATIONS**

USE	COMPUTATION	SETTLEMENT	STRUCTURE COEFICIENT	USE	RESSOURCES
stock			Purchase		

			cost/turnover without Tax		
Customers	**30/2+30**				
Effets à recevoir	**30+2+30**				
Tax to pay	**(30/2+30)10**		Added V Tax/turnover		
RESSOURCES					
Added value Tax					
-Real estate supplier Diverse supplier -Tax supplier Social -organism -Personel	**30/2+15** 15+30/2 1+30/2		 Gross Salary/turnover without tax		

The BFR that has an average term that distinguish from permanent BFR because le FRN Normatif justify the value of a fund that is needed for cyclic a time well determined.

In fact, le FRN is a value indicator of operating need en jour de chiffre d'affaire useful in period of stand by in this oil activity, that intrude naturally a follow up management in period of stand by.

This fund allows us to assess the amount needed to go over to face charges.

CHAP XIIII section 10: **-MASTER OF BASIC OPERATIONAL TARIF TO SELL**

The mastery of the basic operatoional tarif to sell BY the drilling contractor is indispensable as wellfor the drilling contractor as for for the operator that can in nay cases be represented by the parent companies (the holding).

It's obvious, to remind that the operations developpent plan, noticeably well drilling, proceeds from the operator decision and the projection.

In fact, a bid offer is lanched by the operator toward the contractor habile to carry out the assigned mission.

Thus, for the cost control of operations to sell by the drilling contractor or to take profit, a flow chart of logistic scoop indicating:

-The various operating sites where will operate the contractor

-The Track of the logistic itinerary that will take the moving and demobilization logistic associated with the intervention personal.

-Tha amount of needed (catering) to provide to the operational personal physical resistance.

-The lodging at the living camp all a long the logistic track

CHAP XIIII section 10: **MASTER OF BASIC OPERATIONAL TARIFF TO SELL**

CHAP XIIII section 12: **COSTS CONTROL STRATEGY BY THE GOVERNANCE**

CHAP XIIII section 13: **SALE PRICE CONTROL STRATEGY**

CHAP XIIII section 10: **The operations cost management tarif model of a drilling campaign**

The operations tarif cost management model of a drilling campaign is divided in three

1-Drilling tarif slip (main operation) schedule price

Stand by		
Maintenance		

2-skidding tarif slip

Number of skidding	Unit Skidding price	US RATE	TOTAL PRICE XAF	TOTAL PRICE USD
7	170 000 USD	550	654 500 000	1 190 000

Company profit Margin: x 12%=

The operator return profit:

3-MOBIISATION AND DEMOBILISATION

LOGISTIC	**NUMBER OF ENGINES**	**NB OF DAYS**	**UNIT PRICE USD**	**TOTAL PRICE XAF**	**TOTAL PRICE USD**
Crane	2	5 days	7982		
Forklift	1	5 days			
Escort car	1	5 days	376		
Truck semi	1	5 days			
Port char	1	5 days	1555		
Elevatrice platform	1	5 days	627		
A					
MOBILILISATION AND DEMOB HUMAN RESSOURCES CHARGES B					
C= A+ B MOB DEMOB AND HRM SALARIES FOR MOB DEMOB MISSION					

Company profit Margin from **A** + B TARIF: x 12%=

The operator return profit From **A+ B** TARIF:

4-catering tarif slip

In case of tariffication in a package mode, other services can be added in addition.

5-oil service tarif slip 1

For those here below detailed soil services, to avoid more personal costs, the pratic chosen is often to select external personal when there's a need of more personal desired to operate on other fields.

Their temporary contract help save other contractual costs like…..

	Various products sold	Number of persons	NB days	Monthly costs	Annual costs	TOTAL SOLD USD	Daily costs
CASING TUBING	Personal	2	330	12727us	140000us		424us
	Techinicians sold	2					
	Material sold						

6-oil service tarif slip 2

	Various products sold	Number of persons	Nb days	Monthly costs	Annual costs	TOTAL SOLD XAF	Daily costs
MUD LOGGING	personal	6	330	10909us	119999us		364us
	Techinicians sold						
	Material sold						

7-oil service slip 3

	Various products sold	Unit price	Number of persons	TOTAL SOL USD	TOTAL SOL XAF
PUMPING	Sale Daily rate				
	Techinicians sold				
	Material sold				

8- oil service slip 4

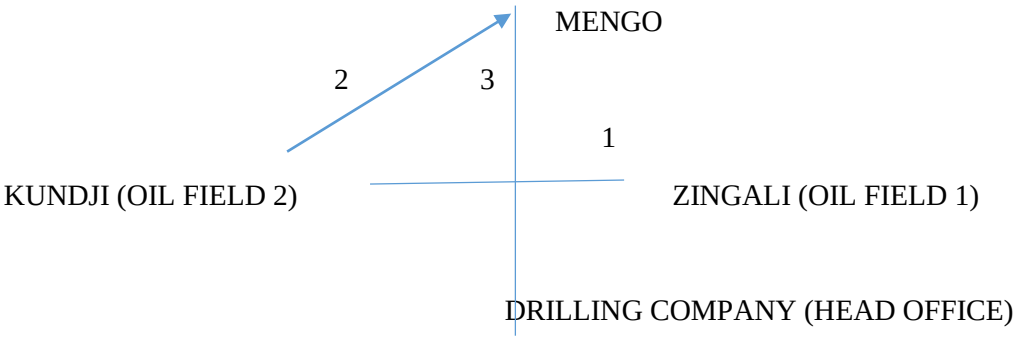
	Various products sold	Unit price	Number of persons	TOTAL SOL	TOTAL SOL

				USD	XAF
PUMPING	Sale Daily rate				
	Techinicians sold				
	Material sold				

CHAP XIIII section 10: **-THE REFERENCE BASIS OF OPERATIONS CONTROL**

	REFERENCE BASIS	**ECONOMIC EFFECTS**	**CONTROL**	
OPERATING SITE	Kilometer From a site to another site	Invoice by kilometer rank		
LOGISTIC ITINARARY	-Campaign Itinarary track	Logistic Days dimution in function of the transport material charges reduction	-Build a link between the parcel to host-and the days. dimunition	
CATERING	-Number of persons to invoice Number of persons to host			

The operation tariff control can't be well carried out without the basic scheme of the sites logistic itinerary wich is the basis of justification of the Tarification



As the basis of tariff accounatability, it's obviously the the basis of the Drilling activity costs control or the operator activities cost control or the parent's company's ones.

CHAP XIIII section 11: **OPERATIONS SALE PRICE SET UP**

To fix a sale price of each activity or services to sell, the contractor must necessarily have the mastery of each accounting nature of its activities.

Without this cost mastery, it is almost impossible to determine a reliable and analytical sale price allowing to intrude it self on a competitive market valued for quality, price consideration

CHAP XIIII section 12: **COSTS CONTROL STRATEGY BY THE GOVERNANCE**

This costs control strategy by the governance is the same operating by a subsidiary cost managerial staff wich in turn intrude a deep cost management from the holding.

In effect, the bid offer lanched to the contractor need a budget set up for each activity forseen for the operations campaign.

This being, it's important to notify here that each activity or service has to carry out the contract in function of an intervention planning relevant to the number of specific days.

Thus, to determine in an alytical way budgetary charges limited to the intervention days, it's strategic to use as work unit nature, the day.

The recommendation done is to set up Daily charges tables, in order to get the daily cost to imputer to the computation of any budgetary lines in function of the operational time limit**.**

This method gives to the governance a real insurance of budgets subjected to the subsidiaries**.**

CHAP XIIII section 13: **SALE PRICE CONTROL STRATEGY**

En outre, the governance can use the seuil de rentabilité to examine from the basis of the variable costs structure well elaborated, the sopt level of proft achievable,where there's no possibility to make profit and where all the costs determined thanks to the variable and fixed structure help depict the real costs of the company.

Thus,from this point of view ,the the variable and fixed costs structure can be one of the structure to be harnssed by the parent company,the drilling company or the operator to control their using costs.

CHAP XIII section 14 : CALCUL DU FR EN PERIODE REGULIERE DES OPERATIONS

CALCUL DU FR EN PERIODE REGULIERE DES OPERATIONS

EN JOURS DE CHIFFRE D'AFFAIRES

	CALCUL	**TE**	**CS**		**R**
use **Ressources** **TOTAL**					

CALCUL DU FR EN PERIODE REGULIERE DES OPERATIONS

EN VALEURS

	CALCUL	**TE**	**FLUX EN VALEUR**	**E**	**R**

USE **RESSOURCES** **TOTAL**					

CHAP XIIII: **THE OPTIMIZATION OF THE ASSETS DEPRECIATION**

The optimisation of drill rigs in the oil field find sets their basis on the foundation of the revealed importance of assests depreciation in general accounting.

This reaveled importance sets the basis of the consideration of a requirement concerning the of the oil especially thos of drilling and of ultra intense caracater of thos activities wich require in the view of a good management of mere companies, an estimate accounting change intruded bythe activity as to avoid getting false financial informations that could bring much more inputs to financial and investing strategies,

This revealed importance is going to set the basis of the awareness requirements of the partIcular nature of the oil activity, notably Tthose of drilling ultra intense caracteres.

CHAP XIIIII section 1.3 THE CONVENTIONAL RATE

CHAP XIIIII section 1.4: THE PRATICAL USE OF DECLINING RATE USE

CHAP XIIIII section 1.5: THE DRILLING RIG DEPRECIATION METHOD

CHAP XIIIII section 1.6: THE DRILLING RIG DEPRECIATION DEPENDING ON THE NATURE OF THE CAMPAIGN

CHAP XIIIII section **1: THE IMPORTANCE OF THE ASSET DEPRECIATION AWARENESS**

Accordint the law : PROVISION DISPOSITIONS.

The French law L 123 20 of commerce code, even in case of no profit or of insufiscent fund, the assets deprceciation and necessary provisions are tobe proceeded.

On the fiscal plan the article 39 1 2 of general code of Tax forsee that the taxable profit is gotten under the deduction of all charges among which the deprciation.

Those assests depreciations can be calculated according to the use of each insustry, and business nature in consideration of the provisions of the art 39 A which stand on degressive depreciation.

CHAP XIIIII section 1.1: THE FUNDAMENTAL CALCUL OF ASSETS DEPRECIATION

THE FUNDAMENTAL CALCUL OF ASSETS DEPRECIATION

There are three types of depreciation:

- Linear depreciation

The declining depreciation lean and mean depreciation

L'amortissement dérogatoire

CHAP XIIIII section 1.1.1 **-DECLINING DEPRECIATION:** FRENCH COMMERCE CODE 39 A

Année	**Coefficient**
1 an 3-4 ans 5ans 6 ans	 1.5 1.75 2.25

CHAP XIIIII section 1.1.2 **THE ANALYTICAL OPTIC OF DEPRECIATION IN OIL INDUSTRIES**

Obviously the obligatory nature of the meticulous follow up of depreciation is de mise in every firm to make profit.

The oil fields in all the value chain dosen't deroge to this operational logic.

The intensity of the oil drilling activity more ever distinct to other industrial activities, except those of the mines... and others, call on the reason and the management logic to a thorough awreness, without negligence of technical aspects deriving from real context of operations achieved on oil plateforms which seem to be minimized or unnoticed by the financial managers, ost control with the aim to drive the drilling firms to their destiny.

This declining depreciation is particularly natural in function of the sedimenttary basin of the country or in function the lithology formation where the drilling rig operates.

Elle constitue un véritable blocus à l'appareil de forage lorsque l'appareil traverse des formations

The best exploitation of the analysis of the assets depreciation in consideration of the formation

Lithology crossed will help optimise the greater economic agregats of a firm over the lenght of time that it will operate on the field; from the research stage, to the production stage through the development stage.

In effect the usual rate of depreciation of drilling rigs is fixed at....

However, it's important de faire remarquer that this rate is identical to the assests or equipemnts here after:

While the evidence of drilling operations shows some operations where the intensity suffered by the drilling rigs is not in anyway to be compared to the level of depreciation of all those assets.

Thus, our field experience as operating technicians while holding a degree in Business management helpd us to notice that the lack of awareness of this aspect could allow to the accounting to keep a usual depreciation board of all matters without taking into account the ultra drilling vibration intensity which extraordinarily depreciate the drilling rigs.

The consequences of this situation lays much more on the long term project where the depreciation value calculated taken in account allow on one hand a depreciation and amortization not suitable to a possible capacity of long term re investment.ie the periods of re purchase of the depreciated asset.

On the other hand, the weight of the depreciations calculated are taken into account in the compte de resultat allow us to obtain a net result that is going to contribute to a high profit tax computation.

More the depreciation is low, the tax profit is high

More the depreciation is high, the tax profit is low.

CHAP XIIIII section 4: A RECOMMANDED STRAIGHT LINE DEPRECIATION

CHAP XIIIII section 5 YEARLY WOROKOVER CAMPAIGN DEPRECIATION

CHAP XIIIII section 6 YEARLY INTERCHANGEABLE OPERATION DEPRECIATION

CHAP XIIII Section 7: THE DAYLY DEPRECIATION COSTS AS A CONTROL ASSET DEPRECIATION TOOLS

CHAP XIIIII section 2: THE **CONVENTIONAL RATE**

Generally there are fundamental and empirical declining rate,deriving from deep researches resulted by great serachers which stated declining balance at 200% of rate for accelerated depreciationsaid to be MACR depreciation Rate; AND A 150% rate known to be for straight line depreciation.

However, many financial Managers or company faill to use the appropriate rate for the huge installation and equipements DEPRECIATION;

Thus it's obvious that the election rate is determinant for the simple reason that the lighltly or highly minimized or maximized rate can restrict the firm's profit and prevent a good financial strategy.

Therefore, in this chapter, we are going to recall the existing Basic declining convention –I

And afterwards display the pratical use of the declining rate said to be in alingn with the convention-II

Demonstrate the Appropriate use of the rate III

And finally show the interest of the daily depreciation rate use in accounting management through Bid offer response models and through Budget items reporting.-IV

I- Basic declining convention

I.1 The 200 % Rate Convention

There is a 200% rate convetion and a 150 % rate convention.

This convention is dedicated for assessing the highly depreciable assets.

In fact, this convention is proven and empirical calcul from researchers.

From the basis of their value, they helped understand that 200% rate equals 40% on 40% yers of a life asset.

Here in afeter shown

Year	Asset value	Declining rate	Convention staright Linear Rate 40%	Assimilable declining line Rate+1.25 %	Year proportional depreciation

1			40 %	40 %	20%
2			40 %	40%	20%
3			40%	41.25 %	20%
4			40%	41.25 %	20%
5			40%	41.25 %	20%
			200%	203.75	100%

200/5=40% or 100/5 Year=20% Demonstartion: 200 x 20/100=40%

As straight line depreciatin added with 1.25% of coefficient rate making in all 20.00125 simple retained as 20%.

1.2-The 150% RATE CONVENTION

Year	Asset value	Declining rate	Convention straight line Rate 150%	Assimilable declining line Rate+1.25 %	Year proportional depreciation
1			37.5	37.5 %	25 %
2			37.5	37.5%	25%
3			37.5	38.75 %	25
4			37.5	38.75. %	25
			150	115%	100

150/4=37.5% 100/4 year=25% Demonstartion: 150 x 25/100=37.5%

As straight line depreciatin added with 1.25% of coefficient rate making in all 20.00125 simple retained as 20%.

CHAP XIIIII section 3: **THE PRATICAL USE OF DECLINING RATE USE**

In major part of companies, the use of declining rate seems to be a little more confusing. Managers seems to use them according to their personal election, far from the convention basic consideration.

As regard the highgly depreciable equipement, the rate used in some companies

In the oil sector of some region of the wolrld the convention of 200% lead them to calculate the depreciation of the asset value on the basis of this rate 40%.

Knowing that the minimal asset depreciation rate can cause an economic impact on the operating budget or the corporate budget, it’s always important to find out the suitable and reliable rate reflecting the real depreciation effect on the asset.

From this point of view, as regard the drilling rig depreciation wich seemingly support sometimes huge vibration effects while operating depending on the nature on the operation to wich they are commited to execute.

The declining rate to consider for drilling campaigns should be according to the rate convention 40%, but the decision concerning this rate must consider whether the operation concerns a well workover or a well drilling.

In addition, even when this can concern a well drilling, it should be necessary even if the depreciation table has already been elaborated, to follow up the physical asset depreciation on the field, the vibration effects if there's been any or not during the campaign.

All those questions are of an importance value in order to avoid to work out some depreciation figures that go astray of the the true valu or tha suestimate the drilling value.

Instead of using 40% directly as rate for a drilling rig depreciation, it should be recommadable for drilling rig to recognize that:

-The depreciation method is basically related to the declining rate convention II.1

-The drilling rig depreciation depends on the nature of the campaign II.2

-A recommendable straight line depreciation for yearly workover campaign, light operation opposed to well drilligs II.3

CHAP XIIIII section 3.1: THE DRILLING RIG DEPRECIATION METHOD

II.1-The drilling rig depreciation method is related to the declining rate convention

.Basically a huge installation like a drilling rig is a declining equipement wich is supposed to support high quality vibrations during operations that can accelerate its depreciation.

Year	Asset value	Declining rate	Convention staright Linear Rate 40%	Assimilable declining line Rate+1.25 %	Year proportional depreciation
1			40 %	40 %	20%
2			40 %	40%	20%
3			40%	41.25 %	20%
4			40%	41.25 %	20%
5			40%	41.25 %	20%
			200%	203.75	100%

Although.

Which can help rationalize the business' economy.

CHAP XIIIII section 3.2: **THE DRILLING RIG DEPRECIATION DEPENDING ON THE NATURE OF THE CAMPAIGN**

II.2-The drilling rig depreciation depends on the nature of the campaign

Some campaigns concern drilling wells operation, considered like operation of huge importance that unavoidably cause high vibrations effects.

Furthermore, it's important to take into account the other economic circumstances that may concern workover operations

II.3-A recommendable straight-line depreciation for workover operations, light operation opposed to well drillings.

-If the mission statement of campaigns is just focused on workover, for valuing economic result, it should be recommadable to set up a straight-line rate depreciation table.

There can be a special campaign dedicated to workover operation, a kind of light operation on wells that concerns with cleaning or maintaining a well production in downsizeward production.

Therefore, when the company is in workover campaign, a kind of light operation opposed to a real drilling operation, the company can decide to minimize the 40% rate to work on 30%. Or 35 % because the equipement will not support high vibration frictions.

CHAP XIIIII section 5 **II.3.1-YEARLY WORKOVER CAMPAIGNS DEPRECIATION**

Year	Initial Asset value	Convention straight line Rate 150%	Depreciation	Depreciation sum	Book value
1	3 500 000 000	37.5			
2		37.5			
3		37.5			
4		37.5			
		150			

COMMENTARIES

CHAP XIIIII section 6: YEARLY **INTERCHANGEABLE OPERATIONS DEPRECIATION**

OIL Busisness's firm can project a specific turnaround cycle from wich, a good number of first wells may start by drilling wells, and followed up on workover operations during the year.

The goal approach of this proceed is to search for cost economies.

The basis of this logic is inspired from the composite asset depreciation, wich contain in its line specific and appropriate values for every single component of the composite; which in sum are not always of importance values as it's the case for other components.

This pooling approach provides important economic costs.

The rational logic would be to elaborate a table containing first incresead depreciation value, calculated on the basis of the 200 % convention declining rate, and leave the depreciation table followed up by stratight line rate for workover wells.

	Year	Initial Asset value	Assimilable declining line Rate+1.25 %	Wells Daily Depreciation	Depreciation sum	Book value
Drilling 1	1	3 500 000 000	40%			
	2		40%			
	3		41.25%			
	4		41.25%			
	5		41.25%			
	Year	Initial Asset value	Convention straight line Rate	Wells Daily Depreciation tion	Depreciation sum	Book value

			150%			
	1	3 500 000 000	37.5			
	2		37.5			
	3		37.5			
	4		37.5			
			150			

CHAP XIIII Section 7: **THE DAILY DAILY DEPRECIATION COSTS AS A CONTROL ASSET DEPRECIATION TOOLS**

MID QUARTER CONVENTION

A three year propriety

Half year	1st quarter	2nd quarter	3th quarter	4th quarter
		41.76%	25%	8.33
		38.89%	50%	61.11%
		14.14%	16.67%	20.37%
		5.30%	8.33%	10.19%

A five year propriety

Half year	1st quarter	2nd quarter	3th quarter	4th quarter
	35%	25		
	26%	30	34	38.00
	15.60%	18	24.40	22.80
	11.52%	11.37	12.24	13.68
	11.52%	11.37	11.30	10.94
	5.76%	4.36	3.06	9.58

A seven year propriety

Half year	1st quarter	2nd quarter	3th quarter	4th quarter
	25%	17.85%	10.71	27.55
	21.43%	23.47%	25.51	19.68
	15.31%	16.76%	18.22	14.06
	10.93ù	11.97%	13.02	10.4
	8.75ù	8.87%	9.30	8.73
	8.74%	8.87%	9.85	8.73
	8.75%	3.33	8.86	
	1.09	3.33	5.33	7.64

Commentary:

Tis use here develop the computation of daily depreciation costs, arguing at the end about the importance of deprececiation computation during oil Bid offer processing.

The half yaer quarter defined as the mid quarter helps compute the daily computation.

Depreciation Daily computation help work out True mathematic values for determining the degment activity real overall cots and profits.

Once neglected, this parameter can for ceratin gap increase the costs.

A conventional table has also been established displaying the pre computated half year to be used in the daily computation needs.

CHAP XIIII Section 2: 2**THE DESADVANTAGES OF THE AWARENESS OF THE ULTRA DEPRECIATION OF DRILLING RIGS**

SECTION 1.1.3.1 INCREASE OF TAXABLE PROFIT BY A LESSER DEPRECIATION OR A LEVEL DEPRECIATION

SHAPE1:

TAXABLE PROFIT= NET PROFIT+ INTEGRATION MOINS DEDUCTION

Exemple: NET PROFIT=204.387.967

Intégration: 47.000.000

Déduction: 20.000.000

FISCALE RESULT=

CHAP XIIII Section 2: 3**: THE ADVANTAGES OF THE AWARENESS OF THE ULTRA DEPRECIATION OF DRILLING RIGS** THE INCREASE AWARENESS OF THE ASSET DEPRECIATION ALLOWS:

Section 1.1.3.1: **The decrease of taxable profit**

The decrease of corporate Tax

To consider a reliable net profit

To calculate a cash-flow sure of an re Investment

SECTION 1.1.4.2 DECREASE OF THE TAXABLE PROFIT BY A HIGHER ASSET DEPRCIATION THAN THAT OF SHAPE 1:

Exemple: NET PROFIT=204.387.967

Intégration: 47.000.000

Déduction: 90.000.000

FISCALE RESULT=

CHAP XIIIII Section 5: **THE ESTIMATE CHANGE ACCOUNTING METHOD**

The accounting plan, the code of commerce dispose that the accounting estimate change is possible

In this case, as the assets depreciation is done by:

Assets depreciation=VO x Linear Rate x standard coeficient of the declining Method

Linear Rate interest use

Taux linéaire=100/5= Linear Rate

The linear rate is a constant rate in the calcul of asset depreciation, this rate in the first years still appear constant.

It's Just from the year that this rate is superior to the degressif rate which is: Linear Rate x coefficient that the rest of the years will indicate an increase of asset depreciation. i, e more important.

Example of a declining depreciation (with constant depreciation the first years)

CHAP XIIIII Section 6**: THE PRINCIPAL OF THE ACCOUNTING ESTIMATED CHANGE** (For Drilling Rig Depreciation in unltra intense activity)

The accounting change estimate that we suggest must be distinct in various calcul mode possibly achieavable in two distinct periods.

In effect achange can intrude itself when an intensity of activity take place the first year or the first years of the project.

Also, an accounting estimate change of assets depreciation can intrude itself when an intense activity occurs in the year or from the year where the asset depreciation computation According to declining depreciation accounting methode starts to give declining assets depreciation the last years.

Thus, an accounting estimate change of drilling rigs depreciation, to avoid all the consequences of management herein mentioned should be done in consideration of periods where ultra intensity can take place.

CHAP XIIII Section 6.1: **ULTRAT INTENSE ACTIVITY THE FIRST YEARS OF THE PROJECT (year where** the calculated depreciation are still in linear mode)

CHAP XIIII Section **6.2 ULTRAT INTENSE ACTIVITY LAST YEARS OF THE PROJECT (year where** the calculated depreciation are still in linear mode)

CHAP XIIII Section 6:3 **THE RULES OF DEPRECIATION BY REPAIR AND MAINTENANCE**

According to the french accounting plan commerce code can make part of an endowing in depreciation assets and provisions. (1572 from French general plan accounting)

THE RULES OF THE BIG REPAIR AND MAINTENANCE:

According to the french accounting plan commerce code 39B, the big repairs and maintenance with composite structure must be suggested to a computation mode in two angles.

CHAP XIIII Section 6:4 **POOILING METHOD**

The structure: the structure original value /year numbers of life

The composite : composite original value/nbre d'année interrompues

Section 6.4 : RIG COMPOSITE DEPRECIATION PLAN

CHAP XIIIIII Section: 1 **-INTERNAL CONTROL RECOMMANDED IN JOINT VENTURE**

CHAP XIIIII Section 3.1 LE CAHIER DE CHARGE

CHAP XIIIII Section 2 **-INTERNAL CONTROL IN BUSINESS TO BUSINESS**

(Between the operator and the Drilling contractor)

The mere company is the the company that indicate to its operator the fields segments to develop or the wells to drill.

However, a crucial and current situation that happens is that when there's no contract signed between the operator representing the mere company and the contractor drilling company, the obligations rights are supposed to be not taken into account.

In this case, there must be a contract that previews the articles of rights and obligations in the distinct period of mere logistic when organizing ressources for moving and settling on an old or new field; and the period of involvement in operation.

In fact, the Business-to-Business contract must is commnonly practiced in the operations of mere logistic before starting the drilling campaign in bid survey.

The internal controle defied as ‘’ ‘’

Put an accent on the financial information system guarantee.

Thus, to guarantee a good internal financial informations systeme, we advise a particular attention on

-The computation related to the moving costs

-The computation related to the catering costs

- The computation related to the Maintenance costs

-The financial reporting and computation related to the Maintenance costs medical cares.

Those assessments are also compulsory when it's to receive and to Rig up a new drilling Rig on an old or a new plateform.

The obligation articles may allow to the contractor drilling company to decide about:

- committing in all the package of those costs

- Adressing a cost allocation.reduction proposals.

-Changing operations Management.

In effect, a meticulous internal control is compulsory in order to avoid the overcharging moving costs especially since those costs are high and represent % of the operational charges and % of the contractor charges.

However in some cases when those costs are not mastered, they can easily be willingly overcharged by the integrated logistic services subsidiairy if the operator doesn't master those charges.

So the moving costs must be subjected to the following requirements.

CHAP XIIIII Section 3: **REQUIRED CONDITIONS FOR MONOTORING THE MOVING COSTS**

1-Existence of Cahier de charge of logistic services

2-Liste de colisage related to a defined lifting plan

CHAP XIIIII Section 3:.1Le cahier de charge of logistic services

This cahier de charge must list all the services charges related to one or some material provision.

The internal control of the operational invoicing must pay attention on:

- ✓ The overcharging details wich encompass
  -The material working hours and the material periodic logistic shift use in twenty four hours.
  -The personal working hours and the personal Material escort.

CAHP IIIV.1.5.2 REQUIRED CONDITIONS FOR MONOTORING THE CATERING COSTS

A MODEL OF SERVICE LOGISTIC MOVING COSTS AUDIT-

AT THE OPRATOR AND DRILLING CONTRATOR

For every contract signed, this hereinafter drawn Table can be used to help Audit or monitor costs.

SERVICE LOGISTIC MOBILISATION COSTS AUDIT AT THE OPRATOR AND DRILLING CONTRATOR				
USED MATERIAL	**ASSET NUMBER**	**WORKING DAYS**		**TOTAL**
USED PERSONAL ASSIGNED				
SUPERVISOR				
TOTAL				

SERVICE LOGISTIC DEMOBILISATION COSTS AUDIT AT THE OPRATOR AND DRILLING CONTRATOR				
USED MATERIAL	**ASSET NUMBER**	**WORKING DAYS**		**TOTAL**
USED PERSONAL ASSIGNED				
SUPERVISOR				
TOTAL				

Out of this here in afeter draw Board, the other logistic cost can concern the skidding costs wich is charged for logistic use materials movement between plateforms.

SERVICE LOGISTIC SKIDDING COSTS AUDIT AT THE OPRATOR AND DRILLING CONTRATOR				
USED MATERIAL	**ASSET NUMBER**	**WORKING DAYS**		**TOTAL**
USED PERSONAL ASSIGNED				
SUPERVISOR				
TOTAL				

CHAP IIIV.1.6.1-The accounting and Tax Tool for improving The project profit

CHAP XIIIII: THE INFORMATION SYSTEM CONTROL FOR A GOOD GOVERNANCE

Section **Information system control** 1 -

For a goog oil holding governance, the use of an integrated software is compulsory to be able to register easily directly in an integrated system:

-The supplier's invoices

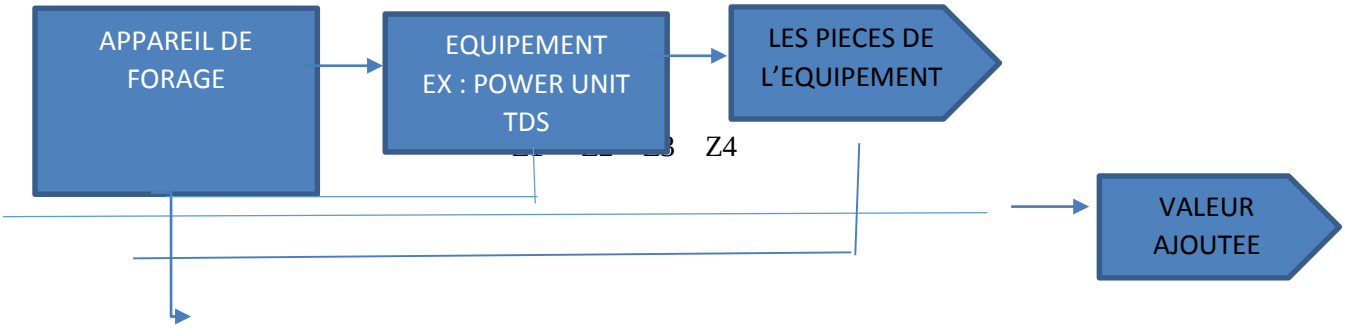
-The customer installement demand

-The costs and profits center

CHAP XIIIII Section 2: THE IN DEPH ANALYTICAL

5.1-PREMIER ARGUMENT SOUTENANT L'INTERET DU PROJET

MODELE D'ACTIVITE SFP



- La productivité de l'appareil de forage dépend de ses équipements connexes tels que : le MCCR, les groupes, l'unité d'alimentation de la TDS,……
- La maintenabilité et la disponibilité des équipements connexes à l'appareil de forage dépendent de la qualité, de la durabilité, et de l'entretien des pièces ou composante de ces équipements associés à l'appareil de forage.
- La maitrise des pièces à défaillance récidive au nombre de pièces homogènes d'une unité, la maitrise des couts suscités par ces pièces en générale et la maitrise des couts suscités par les pièces les plus changeables, nous entraine à :

DES PRISES DE DECISIONS ET UN STYLE DE MANAGEMENT STRATEGIQUE.

Axé sur la capacité d'évaluer les techniciens intervenant quitte à établir plus facilement le lien entre les fréquences de pannes et la présence au poste par marée des techniciens responsables de la maintenance de ces équipements.
Ces données peuvent nous permettre d'améliorer notre outil de qualité pareto en extra système à partir de la profondeur des couts analytiques qu'il nous procure jusqu'à nous permettre d'établir la responsabilité des techniciens et d'en juger leurs compétences lorsqu'il s'avère que la ou les mêmes panne(s) surviennent asses souvent en présence au poste de tel ou autre technicien.

DES PRISES DE DECISION OPTIMISEES PAR UN BON CONTROLE INTERNE

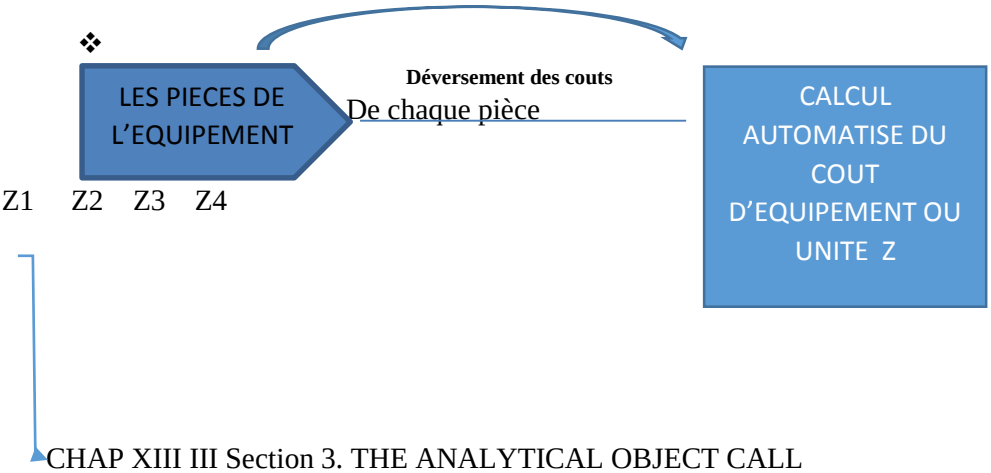
Ce mode gestion à l'avantage de nous permettre de savoir quelle est entre la pièce Z1, Z2, Z3, Z4, la pièce qui nous coute le plus cher dans un équipement.
Pourquoi tombe-t-elle plusieurs fois en panne ?
Quels est la pièce d'entre les pièces d'un équipement ou quels est la composante entre les composantes d'un équipement que devons-nous changer ?
Eh bien ce sont le niveau des couts déterminés par la GMAO qui nous permettra d'avoir les réponses à ces questions précitées et ainsi nous permettra d'orienter notre management opérationnel, et facilitera notre contrôle interne.

CHAP XIII III Section 2: THE **IN DEPH COST CONTROL**

CHAP XIII III Section 2 .1 OVERVIEW OF A PART AND A SYTEM LINK IN GMAO

SFP02 zz PIECE —— EQUIPEMENT OU UNITE Z

CHAP XIII III Section 2 .2 OVERVIEW OF SEVERAL EQUIPEMENTS PARTS WITH THE GMAO SYSTEM



CHAP XIII III Section 3. THE ANALYTICAL OBJECT CALL

Cet appel à l'objet analytique a l'avantage de nous permettre de se renseigner sur le cout de la pièce Z1, Z2….

- CHAP XIII III Section 4. THE GMAO IMPLEMENTATION

La mise en place de ce logiciel GMAO requiert trois étapes :

CHAP XIII III Section 5. THE ASSET IDENTIFICATION AND THE DEFINITION OF THE NOMENCLATURE (INSTALLATION DECOUPAGE)

CHAP XIII III Section 6.**THE CODIFICATION AND THE NOMINATION OF VARIOUS EQUIPEMENTS**

CHAP XIIIIIII **THE SYSTEM ANALYSIS PROGRAM IIMPLEMENTATION MPORTANCE**

CHAP XIII IIII II THE OIL CHAIN VALUE DEFINITION

The chain value isdefined as the different activities of a sector wich generate a result.

The operational oil chain values are:

-The sismic survey

-The Geophysics

-The sonde Geology

-The exploration drilling

CHAP XII II III I Section 1: THE SISMIC SURVEY

-The Global positioning system so called ‘’GPS’’

The sismic survey helps to determine the hydrocarbons presence in an oil formation.

This science uses a good number of tools for depicting the hydrocabons presence.

CHAP XIII II II IISection 2: THE GEOPHYSICS

CHAP XIII II II I Section 3 THE GEOSCIENCE

CHAP XII II III I Section 4: THE DRILLING EXPLORATION

CHAP XIII II II I: PRIMORDIALE CONDITIONS FOR THE SUCCES OF A WELL DRILLING CONTAINING HYDROCARBONS

The exploration drilling well success or the production well drillings success are conditioned first of all by the main success of a stratigraphic log CHAP XII.1 and by the necessity of a value chains integrity.CHAPXI.2

CHAP XII II III I section 1: THE SUCCES OF A STRATIGRAPHIC LOG

The stratigraphic log is drawn by the work of the geologists who are able to design it after gathering:

- The data computed by the technicians of the MWD (Mesure, Weight Deph),

-The ultrasonic device

-The drilling cuttings collected au vibrator sieve by themselves the mud loggers,

-The gaz data

-The Bottom hole assembly speed.

CHAP XII III II I: SECTION 2**: PRATICAL AND TRADITIONAL TOOLS FOR FINDING OUT THE HYDROCARBONS PRESENCE SO CALLED**

There are multiple tools helping to depict the hydrocarbons presence, although this sector is being filled with innovated tools wich brings more information capacity to get the deepes informations from the geological formations.

Among those tools, we have:

-The Gama ray Diagraphy

-The ultrasonic Too

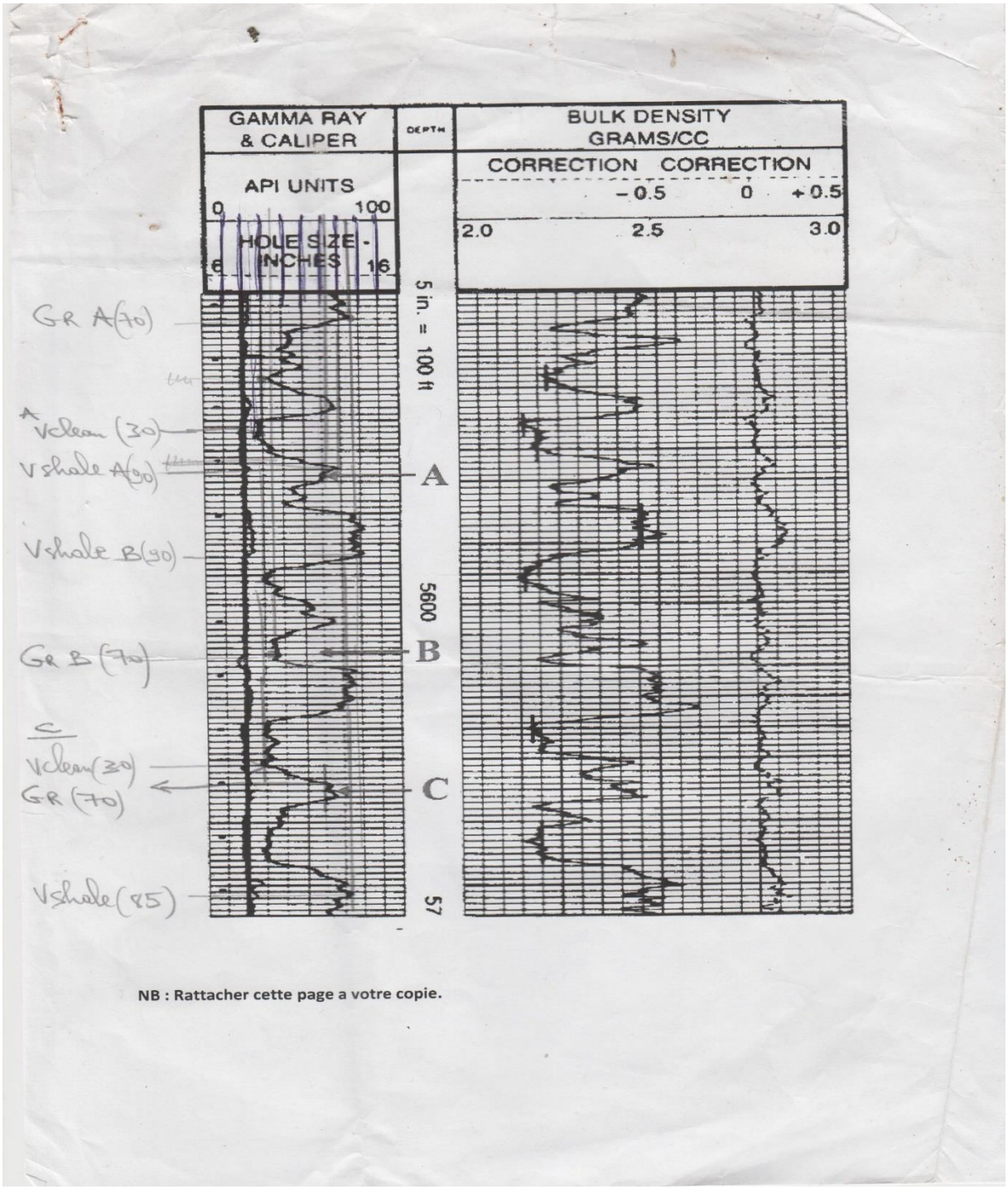
CHAP XI III III II section 3: THE MEASURE WEIGHT AND DEPH JOB

The measure wegit and deph is a qualified job team in charge of capturing the well informations related to the well Total vertical deph, weight;

The role of the Gama ray is the continuous recording of the various layers of formation underground**.**

Its diagraphy the hypothetical presence of hydrocarbons.

CHAP XIII II II I section 4.1: **THE DIAGRAPHY GAMA RAY SHEME**



CHAP XIII II II I section 4.2: **THE DIAGRAPHY GAMA COMPUTATION**

.Its principal consist to determine in the formation the Gama focal point, the less argileaous zones, and the argileaous zones to be able to determine the argile volume from the following formula.

Vs=GR-GR CLEAN/GR SHALE –GR CLEAN

GR: as the Gama point

GR clean as the target poin of the non argileous point

GR SHALE: as the the target point of the argileaous point

CHAP XIII II II I section 4.3 **THE CLAY VOLUME AS SUBSTANCIAL INDICIS OF HYDROCARBONS PRESENCE**

AT THE A DEPH

VS= GR-GR CLEAN = 70-30 = 40 =6.6%

GR SHALE-GR CLEAN 90-30 60

AT THE B DEPH

VS= GR-GR CLEAN= 70-30 = 40 =6.6%

GR SHALE-GR CLEAN 90-30 60

AT THE C DEPH

VS= GR-GR CLEAN= 70-30 = 40 =6.6%

GR SHALE-GR CLEAN 85-30 50

In effect, this indicis heps determine the potential of the various levels of the formation in hydrocarbons presence through the difference of argile volume at each individual deph.

CHAP XI III III I section 5: **THE DRILLING CUTTINGS CATCHING**

The drilling cuttings are caught by the catchers who make part of the Mud logging teams**.**

Those catchers collect the drilling cuttings on the Tamis du vibrateur from time to time accordingly to the Bottom hole assembly progress downward.

They aim consists in catching the drilling cuttings at evry well formation levels and also in various circumstancies needed.

The cutting gotten may be of multiple nature and forms.

Those cuttings can derive from well formations garni with clay, sandstone, sand, and carbonate.

The collected cuttings will be given to the data engineer who then dedicate his time in analyzing their nature wich are of a great importance.

In the understanding of the well formation on principle even while drilling.

They provide the well control ensurance, because they help the mud loggers to depict the geological formation content.

CHAP XIII II II I section 6: **THE GAZ ANALYSIS**

The gaz analysis across the drilling evolution allow to the mud loggers to…

CHAP XIII II II I section 7: **THE TARGET OF DRILLING POINT COAST**

The GAMA RAY result in a great amount shale volume and the gaz across the drilling progress allow to the mud loggers to ensure of the probability of hydrocarbons presence.

Definitely, the drilling cuttings caching, the measure, weight and deph data collection and the gaz analysis allow to the mud loggers to draw a trustable stratigraphic log.

The goog stratigraphic log deseign helps to determine according to the well content substances, the localization of the reservoir.

Once this drilling point coast determined, the substancial stage to go over will be the development stage, where a wells drilling campaign will allow the the field economic output survey.

CHAP XIII III I I section 8: **THE THE ULTRASONIC TOOL**

CHAP XII III II I section 8: **THE STRATIGRAPHIC LOG DESEIGN**

IMAGE OF A COMPLETE

CHAP XIII II II Isection 9: **IMAGE OF A COMPLETE STRATIGRAPHIC LOG DESEIGN**

CHAP XI I I I II I I I: **THE AUDIT OF OIL RESEARCH STRATEGY**

Audit Fundamentaly known as the subject that ensure to the business the greater monitoring of its operations is subject that requires the knowledge of specific matters that are supposed to be known by an oil company chief executive officer or, by the general Managers leading those oil various oil subsidiaries.

La technique de recherche appropriée aux études géophysiques conformément à la formation des champs a été l'objet de plusieurs echec de recherche soldée par des puits sec.

The appropriate research tecnics concerning the geophysic surveys in compliance with the fields formation has been object of several research failures resulted by dry wells.

In effect, No good governance can be gotten without la maitrise du gisement.

Because the gisement decline the project probable potential and decline par consequent the various Field strategies development and actions plan to achieve.

Therefore, the audit of oil research strategy aims at determining the fundamental matters and their related subjects for wich the knowledge help the Managers or the chief executive officer govern with excellence or with the rules of the art an Oil Research project.

First of all the oil research strategy must be addressed to an oil company Strategy Manager, as he is the Responsible of this duty and further more to various oil company Managers for whom those below detailed grasp knowledges are important.

For that, the audit duty will consist in elaborating a template frame with a checklists transcribing a good number of governance questions from the l'etat du gisement firstly, to the development wells through the appraisal wells.

The mission consist in:

-elaborating the questions that make sure of the existence of gisement

-elaborating the questions that make sure of the gisement knowledge.

-building some interviews questions that confirm or infirm the existence the operational procedural standards along the reaearch campaign, the material or equipements standards to use for the mission.

-elaborating the value chain integrity questions to make sure that the operation is adroitement and scientifically conducted to achieve the mission without any ignored risks, or without beware at all aware of the more sensitive questions wich determine the probability of the project success

CHAP XIII I III I section 1: TECHNICAL OIL RESEARCH INTERVIEWS TEMPLATE FRAME CHECKLIST

		ERA SCALE	**POROSITY**	**GOR**	**BASIC SEDIMENT WATER**	**FLUID**
Existence du gisement	**-Does the reservoir ensure the hydrocarbons presence**	Is the oil located in an era scale formation reknowned as containing hydrocarbons or recipient of an oil migration? -At wich Kilometer is located the oil Reservoir?	Wich is the oil volume on the Total oil fluid contained in the Roch	Wich is the gaz oil volume on the Total oil fluid contained in the Roch	Wich is the water volume on the Total oil fluid contained in the Roch	What is the oil fluid API quality
		Pressure state				**MUD**
Gisement Knowledge		Does the Roch have big pores? Wich is the Roch pore size? Does the Roch have big size grains? What is the Roch grains size -What is the geothrmic pressure?	Has the gisement have a normal pressure or anormale pressure			Wich is the mud density to use for drilling according to The the pores pressures
		The Material standards				
Research operational standards						
Material standards						
Equipements						

standards						
Value chain integrity questions						
Sensitive Diverse questions						

This objective can be reached only through the mastery of the Prospects and Fields bassins.

The stratigraphic log design is the indispensable condition for a successful drilling well operations or for the mastery of a well formation.

Its deseign will oblige the geologists to buid up with all the upper mentioned inputs the whole well content classification.

They will be able to spot every cuttings location in the well skech.

CHAP XII II III section 12: **THE CHARACTERISTICS OF THE GEOLOGIC FACTORS**

After the sismic stage, lead by the geophisicians, the geologist deicate their involvement in analyzing the geologic characters which consists in assessing the formation through

The formation porosity assessing,

The formation permeability assessing

The continuous recording of pressure, temperature, and volume

In order to determine the:

- The recoverable Reserves
- The Probable reserves
- The nature of the individual formations crossed
- The roch constraints
-

  CHAP XIII.1. Section 1.2.1 The recoverable Reserves
  The recoverable hydrocarbons are the hydrocarbons supposed to be economically profitable.
  CHAP XIII.1. Section 1.2.2 The Probable reserves
  The probales reserves are an amout of reserves wich are not certainly exploitable because of any natural environemental risks seemingly difficult to mitigate to operate.
- **CHAP XIII.1. Section 1.2.3** The nature of the individual formations crossed
- **CHAP XIII.1. Section 1.2.4** The roch constraints

CHAP XI IIII II section 13: **THE FORMATION POROSITY ASSESSING**

The porosity is influenced by:

-The Rock grains size

-the oil quantity in the roch

-The roch matrice

CHAP XI III III section 14: THE FORMATION POROSITY ASSESSING

The formation permeability assessing is influenced by:

-The interconnected pores

CHAP XI I I I II I I **THE DRILLING EXPLORATION AND OPERATIONAL GEOSCIENCE STAGES**

After getting the well content profile**,** it will be necessary to the developpement project team in an oil group to determine plan:

The appraisal wells drillings and

The well development.

CHAPXI I I I II I I section 2: **THE WELL DRILLING APPRAISAL**

The appraisal well drilling are lead by the project development team who are in charge of apprasing a good number of wells targeted to appraise on a single field.

The appraisal will consist of determining the geologic characteristic of the field, noticeably,

The wells porosity and permeability on an unoperated field.

Also, will they work on computing the volume, temperature and pressure of those various wells?

CHAPXI I I I II I I section 3: **THE WELL DRILLING DEVELOPPEMENT**

The completion of multiple wells appraisal stage will give rise to the well development stage, where a number of appraised wells have been considered potentially and economically operational.

Thus, this stage will require a delimitation action on the field to delimit the operating and commercial wells.

So, as our aim is to display the tools that help reach the wells production stage, through a good governance all along the operational value chain that have been described herein.

So said, the remaining part of our work take us to the display of the strategic governance.

CHAP XI I I I II I I I section 1: **THE OPERATIONAL CHAIN VALUE STRATEGY GUIDELINES**

The operational chain value strategic governance will focus on an audit overview of the oil research strategy

CORPORATE CONTRACT	RESERACH STAGE	DEFINITION	UNCOMPLIANCE TO THE PROCEEDS	FUNCTIONAL STANDARDS FOR THE VALUE CHAIN	COMPETENCE REQUIRE
	THE GLOBAL POSITIONNING SYSTEM				
	THE SISMIC OPERATIONS				
	THE GEOPHISICS OPERATIONS		Lack of a operational compliance meeting as regard the GPS coordination and the sismic coordination	Organize a compliance meeting betwenn the GPS coordination and the sismic coordination	Competences requirement p Profil
	THE DRILLING OPERATIONS		Lack of a operational compliance meeting as regard the convergence proceeds between sismic coordination and drilling coordination	Organize a compliance meeting betwenn the sismic coordination and the drilling coordination	Competences requirement p Profil
	FORAGE DE PRODUCTION				

PARTNERSHIP CONTRACTS	PHASE DE RECHERCHE	DEFINITION	INCONFORMITE AUX PROCEDES	FUNCTIONAL STANDARDS FOR THE VALUE CHAIN	Competences requirement profil
	THE GLOBAL POSITIONNING SYSTEM				Competences requirement profil
	THE SISMIC OPERATIONS				Competence requirement

					profil
	THE GEOPHISICS OPERATIONS		Lack of a operational compliance meeting as regard the GPS coordination and the sismic coordination	Organize a compliance meeting betwenn the GPS coordination and the sismic coordination	Competences requirement profil
	THE DRILLING OPERATIONS		Lack of a operational compliance meeting as regard the convergence proceeds between sismic coordination and drilling coordination	Organize a compliance meeting betwenn the sismic coordination and the drilling coordination	Competences requirement profil
	FORAGE DE PRODUCTION				

CHAP XI I I I II I I I section 2: **COMMENTARIES ON OPERATIONAL STRATEGIES**

A common operational strategy in the exploration,drilling and drilling production stage in compliance with the partnership or contract governance mode to be carried out by the parties involved in the contract to reach the targeted goals founded clearly on the the operating requirements orientations of the formation and well parameters,noticeably those of well legends.

The competences requirement orientations are one of the most accepted required ressources in this array of strategies without ignoring the need in innovated technologies.

To those herein mentionned requirements, an important availability in innovated technolies related to the particular and redoutable operations, wich need a technology.

This last point is one the main reason of unseccsessful projects of drY wells all over the world.

THE OPERATION ANAGEMENT AUDIT

OBSERVATION ITERACTIF	**SURVEY**	**STRUCTURES**	**STREAMS**

The Top Management beeing the well operations garant ,be he from an administrative or technical profil must necessarily have the risk mastery elements for guaranteeing huge costs losts occurred by errors,incidents ,accidents or operational accidents.

Among those events, we can mention in priority order

CHAP XI I I I II I I I section 3**: THE BAD WELL CONTROL**

The general well control rules are to be mastered and practiced especially by drilling team and noticeably by the drilling supervision team (the driller, the company man.

However, The Top management even not being a specialist in the subject must master the systemic well control scenarios that lead to a huge loss of money.

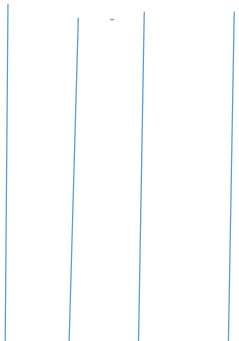
The simple sum up formula for well control is contained in the following formula:

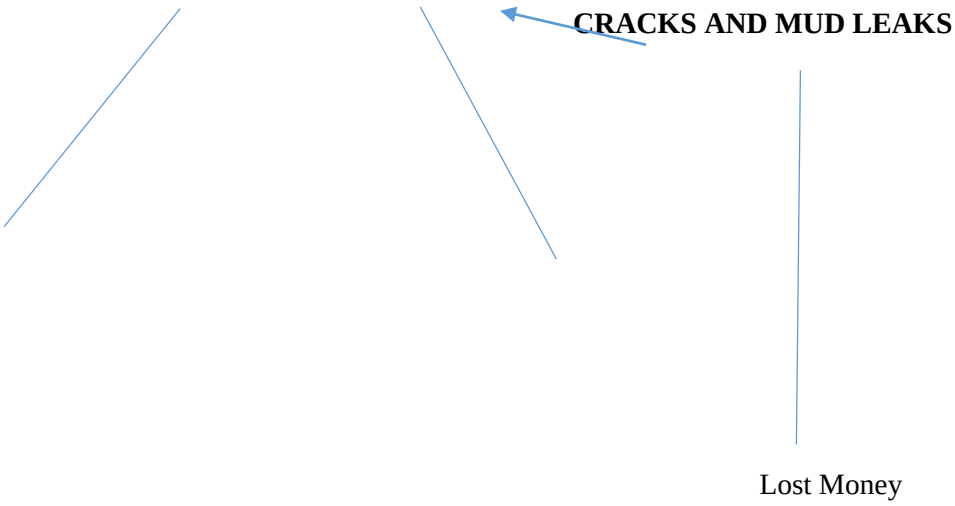
PF inf d sup p fonds

This means that if the load density is sup Barrier pressure because ⟶ Formation cracks

If the density is inf to the gisement pressure. ⟶ Venue

ILLUSTRATION BY IMAGE WELL DENSITY USED SUPERIOR TO THE DEPH PRESSURE





This leaks mud cause the need of the use of a lot of lost circulation material wich are use to gap the leaks hole zones that have broken the wall .

Te cracks give occasion to the leaks and this leak are subject to be deep absorption load.

The well can loss 1000Liter of mud eah hour for instance.So

The Chief operator must make sure about the money he is supposed to spend in order to take some steps or a decision to buy the lost circulation material wich cost a lot .Or if he can continue drilling with possible negligeable loss.

CHAP XI I I I II I I I SECTION 4: **THE DIFFERENTIAL STICKING PROBLEMS IN DRILLING OPERATIONS**

There are a few serious problems that may arise during the course of drilling a directional well.The probability of certain drilling problems arising (e.G differential sticking is increased bi virtue of the well being deviated.

So this situation happen when:

- The the bit (Tool used for drilling well) is not really appropriate for drilling this a determined kind of formation.

-the ignorance or no control of the dog leg severity at the beginning of the project.All above at a shallow deph.

-Poor hydraulics and mud conditioning cause borehole instability.

-Drilling with a PDM in high angle wells cause difficulties to slide.

-Whole inclination causes borehole instability

-Pressure sticking occurs across a permeable zone, such as sand.

-Solids Mud increase, highten the the filter cake

CHAP XI I I I II I I I section 4:1 **THE DIFFERENTIAL STICKING ORIIENTED SOLUTIONS**

	STCKING PROBLEMS		**ACTIONS TO SOLVE**		
1	**BIT not appropriate**			**Use a PDC bit for efficient drilling of long sections, mud and hydraulic systems for improved control of borehole instability.**	
2	**DOG LEG SEVERITY**		**Avoid water loss**		
3	**PIPE STICKING**	**Drill string rests against the wall of the borehole in DD. -Drill pipe in contact with filter cake, sealed from the full hydraustatic pressure of the mud column.**		**Overpull=(sticking pressure- contact area x friction facor**	The Top Management must **Master the contact area. And the overpull pressure fishing.** The the thicker the filter cake, the larger

					the contact area**.**
4	**SOLID MUD INCREASE**				Monitor the mud quality. At the each reception and when ready to mix or to pump in the well.

CHAP XI I I I II I I I section 5:1 **THE OVERPULL APPLICATION FORMULA**

Ppg = Differential betwenn the full hydraustatic and the mud column=6.6ppg = pressure difference.

TVD=7000 ft

Friction Factor: 0.052

CHAP XI I I I II I I I section 5:1: **COMPUTE THE STICKING PRESSURE**

0.052 x 7000 x 6=2184 psi

contact area 3 drill collars x 10=360 in 2

Overpull=2184 psi -360in2 x 0.15

The friction factor can vary from 0.15 to 0.50.

IF the contact area is small, the the the oveprull will be more important.

CHAP XI I I I II I I I I: **PRECAUTIONS TO TAKE IN ORDER TO HAVE A SUCCESFULLY WELLS DRILLED WITH COSTS MINIMISATION**

Those precautions will be respectively based upon:

CHAP XI I I I II I I I I section 2: **THE PARTENER RELIABILITY AUDIT IN EXPLORATION STAGES**

The operational audit cover various fields helpful to determine the reasons of dry wells.

Those reasons can come from operational aspects, from management aspects and from financial aspects.

They arouse from the Top management the soucis to better choose his human, material and financial ressources, without ignoring his partner too ; with whom he is likely able to commit to the project.

So, we are goint to lead our Partner reliability audit in the exploration stage to take out the weakness evidence or hazards that can cause Dry wells.

CHAP XI I I I II I I I I: section 3: **THE THE PARTENER OPERATIONAL AUDIT IN THE EXPLORATION STAGE**

AUDIT FIELDS	**CHAP XIII.1**	**CHAPIII.2**	**CHAPXIII.3**

	PARTNER OPERATIONAL AUDIT	PARTNER MANAGEMENT AUDIT	PARTNER FINANCIAL AUDIT
SISMIC			
EXPLORATION DRILLING	CHAPXIII1.1)- Number of successful Drilled wells CHAPXIII1.2) -Mud logging and Drillers personal competences CHAP III1.3 -HSE indicators	-CHAPXIII.2 -Evidence control of the Geologists, mud logging and Driller comptences CHAP XIII.2.2 -Operational Meeting	-share portofolio appreciation Rights valuation -The stock portofolio appreciation -The formers's partners net incomes -The partners's stockholders' equity.

CHAP XI I I I II I I I I: section 4**: THE PARTENERE MANAGEMENT AUDIT IN THE EXPLORATION STAGE**

To decide to accept a partner it's necessary to know the number of successful drilled wells by their technicians.

Because a partner who has less Drilled wells doesn't provide any Trust to other partners;

That's why consecutively, the drilling contractor who has a weak or a Bad Mud logging Team is likely to prevent the possibility of hydrocarbons discovery.

Technically, this happens when the data calibration by the mud logging Team provide to the client (the operator) fake geological formations.

Furthermore, such unskilled Mud logging Team can damage the formation.

Where their data provided, indicate more solid rock grains like the carbonate or...at the fracturation zone, (at the shoe). (The zone supposed to be exploded for the hole pockets creations) naturally dedicated to attract the hydrocarbon collection from the borehole of the formation.

The fake geological formations can oblige the technical team to exercice more fracturation pressure at the shoe point, what can lead to the formation damage, and prevent the oil from gushing out.

In the same order of ideas, the personal, all above the mud loggers and drillers working in the exploration drilling project must be admitted to a well control tests reckognised on the world scale.

This certificate guarantee the Mastery of the well phenomenons and can ensure that the operators can produce crude oil at the end.

CHAP XI I I I II I I I I I SECTION 2: THE TRADITIONAL STRATEGY OF THE PROSPECTS PORTOFOLIO SURVEY POTENTIAL

CHAP XI I I I II I I I I section 5: **THE PARTENER FINANCIAL AUDIT IN EXPLORATION STAGE**

The partner financial audit is very important because some hazards on the field of finance have lead many oil companies to the failures.

This happened when an oil company had not been so strict in anlysing his partner share appreciation rights.

The partner share appreciation rights

Partners's stocholder's equity, his parner's equity debt.

He should pay attention to the partner's debt equity, because if the partner is filled with debt equity, he looks less trustable in the project pilotage.

The share portofolio department must be aware that he is the first guarantee to the project reliability.

He garantees the company's capacity to lead the project without money consideration asphyxia or.

By the way, the portofolio department must analyse the former partner's net income, to be sure to have a certain control of the partner.

Thus, the partner financial audit is an inclusive requirement for the operations success.

For the success of the operation, the partners must be first rightfuly selected.

CHAP XI I I I II I I I I section 6: **THE GEOLOGICAL ERA SCALE**

The sedimentary Congo bassins sets on the the skech of the geological time era scale, which gave a structural form the…….

First of all, lest's present the geological time era before presenting the Congo Bassins structured from this geological era scale.

GEOLOGICAL ERA SCALE

	Age	Tectoniques	chronostaratigraphy	Formation			
	Recent						
Tertiary	pleistocene						
	pliocene						
	Miocene						
	oligocene						
	Eocene						
	paléocene						
	Maastrichtian						
	campanian						

crétaceous	santonian						
	coniacian						
	Turonian						
	cenomanian						
	Albian						
	Aptian						
	Barremian Néocomian						
	jurassic						
	permian						
	carbiniferous						
	Pré cambrien						
	cenomanian						
	Albian						
	Aptian						
	Barremian Néocomian						
	jurassic						
	permian						
	carbiniferous						
	Pré cambrien						

CHAP XI I I I II I I I I section 7: **THE TECHNICAL REASONS OF THE COSTS INCREASE DURING EXPLORATION DRILLINGS**

CHAP XI I I I II I I I I section 8: THE TECHNICAL REASONS OF OIL TRAP FAILURES

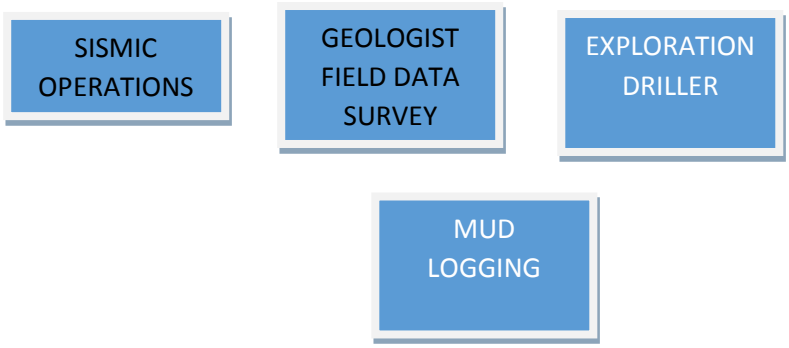
The technical reasons of the trap failures lays mainly in the lack of integrity of all the reaserch value chain, notably from the sismic operations to the geologist intervention till the exploration drilling operations.

In effect when the sismic provides misinterrupreted data where oil is not supossed to be or not suffisciently supposed to be, this misinterpretation impact the geologists' surveys.

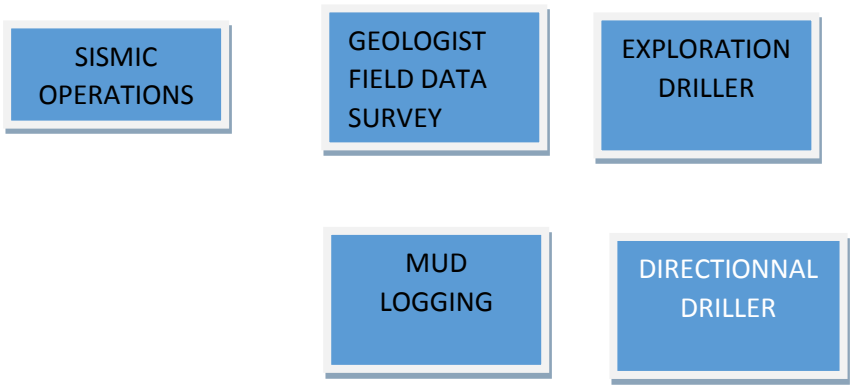
The geologist surveys are going to impact the directional drillers and the driller execution.

CHAP XI I I I II I I I I **THE LACK OF INTEGRITY CHAIN**

CHAP XI I I I II I I I I SECTION 1: THE HORIZONTAL WELLS



CHAP XI I I I II I I I I SECTION 2: THE DIRECTIONNAL DRILLING WELLS



CHAP XI I I I II I I I I I: **-THE GOVERNANCE PRECAUTIONS TO REINFORCE THE OPERATIONAL RESEARCH USEFUL TO REACH THE PRODUCTIVE RESERVOIR WITH CONTROLLED COTS**

CHAP XIIIIIII SECTION 1.1 The traditional strategy of the prospect's portfolio survey poten

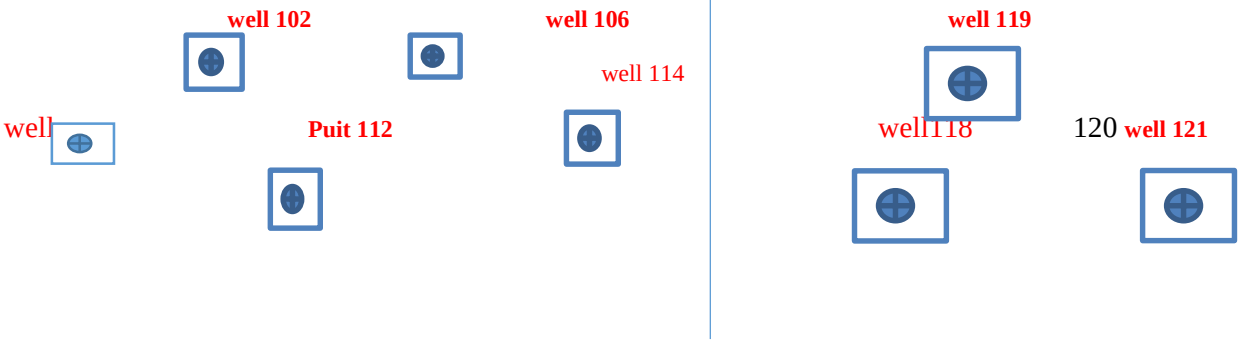
CHAP XI I I I II I I I I I SECTION 1:**: THE TRADITIONAL STRATEGY OF THE PROSPECTS PORTOFOLIO SURVEY POTENTIAL**

The maximization of the prospect's operating portofolio aims at setting as objectives a larger number of successfully drilled wells and economically profitable under a fair risk balance.

CHAP XI I I I II I I I I I section 3: **THE SKETCH PROSPECTS PORTOFOLIO SURVEY**

PLATEFORME 402

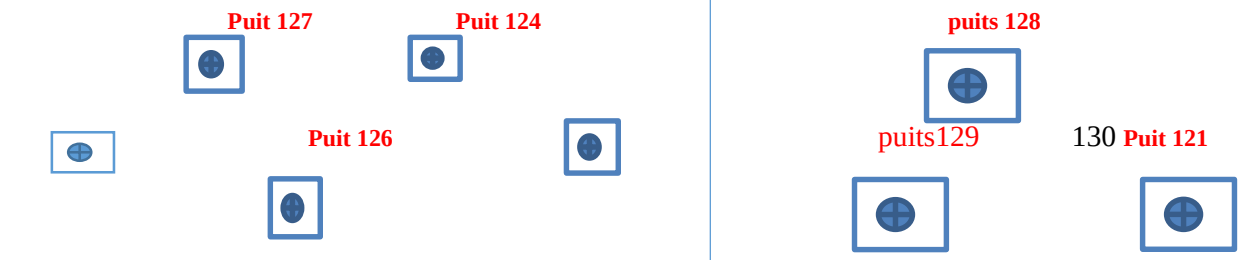
PLATEFORME 307



PESTOL OIL FIELD

7-1) PLATEFORME 406

PLATEFORME 308



Fig

CHAP XI I I I II I I I I I section 3.1: THE ORLY OIL FIELD APPRAISAL

PLATEFORM 402	WELL NUMBER	PROVEN RESERVES	DEVELOPPED PROVEN RESERVES	WELLS IN PRODUCTION
	w.102	54 545 Bbls		5335 Bbls a year
	w.106			8250 Bbls a year
	w.112			4300 Bbls a year
	w.114			5000 Bbls a year
	w.121			2200 Bbls a year
Total			24 545 Bbls	**25 085 Bbls a year**

PLATEFORM 307	WELL NUMBER	DEVELOPPED PROVEN RESERVES	WELLS IN PRODUCTION
	w.119		1566 Bbls a year
	w.118		2300 Bbls a year
	w.120		2100 Bbls a year
Total			**5966 Bbls**

CHAP XI I I I II I I I I section 3.2: THE PLATEFORM ECONOMIC OUTPUT SURVEY

PLATEFORM 402	Well Name	TOTAL SALE			TOTAL COST	PROFIT
		U PRICE	Bbl QUANT	T SALE		
	w.102	100 USD	5335 Bbls	533 500 USD	272 727 USD	260 773 USD
	w.106	100 USD	8250 Bbls	825 000 USD	345 545 USD	479 455 USD
	w.112	100 USD	4300 Bbls	430 000 USD	145 000 USD	285 USD
	w.116	100 USD	5000 Bbls	500 000 USD	120 000 USD	380 000 USD
	w.121	100 USD	2200 Bbls	220 000 USD	400 000 USD	180 000 USD
	Total	100 USD	**25 085 Bbls**	**2508500 USD**	**1 283 272 USD**	**1 585 228 USD**

Fig. without taking in accout the price schedule

PLATEFORM 307	Well Name	TOTAL SALE			TOTAL COST	PROFIT
		U PRICE	Bbl QUANT	T SALE	NA	NA
	w.118	100 USD	7780 Bbls	778 000 USD	295000 USD	483 000 USD
	w.119	100 USD	15 690 Bbls	1 569 000 USD	436 000 USD	1 133 000 USD
	w.120	100 USD	12 369 Bls	1 236 900 USD	345 000 USD	891900 USD
TOTAL		**100 USD**	**35839 Bbls**	**3610900 USD**	**1076000 USD**	**2 507 900 USD**

CHAP XI I I I II I I I I I section 3.3: THE PESTOL OIL FIELD APPRAISAL

PLATEFORM 406	WELL NUMBER	PROVEN RESERVES	DEVELOPPED PROVEN RESERVES	WELLS IN PRODUCTION
	w.121	90 300 Bbls	45 000 Bbls	2355 Bbls a year
	w.124			1800 Bbls a yaer
	w.126			3000 Bls a year
	W.127			2300 Bbls a year
				9455 USD

PLATEFORM 308	WELL NUMBER	PROVEN RESERVES	DEVELOPPED PROVEN RESERVES	WELLS IN PRODUCTION
	w.128			4000 Bbls a year
	w.129			6000 Bbls a yaer
	w.130			8000 Bls a year
				18000 Bbls a year

CHAP XI I I I II I I I I I section 3.4: THE PLATEFORM ECONOMIC OUTPUT SURVEY (IN COMPARISON)

2222

PLATEFORM 406	Well Name	TOTAL SALE			TOTAL COST	PROFIT
		U PRICE	Bbl QUANT	T SALE		
	w.121	100 USD	2355Bbls	235 500USD	160 000 USD	75 500USD
	w.124	100 USD	1800Bbls	180 000USD	123 000USD	57 000 USD
	w.126	100 USD	3000Bbls	300 000USD	200 000USD	100 000USD
	w.127	100 USD	2300Bbls	230 000 USD	190 000 USD	40 000USD
	Total					**272 000 USD**

Fig. without taking in accout the price schedule

PLATEFORM 308	Well Name	TOTAL SALE			TOTAL COST	PROFIT
		U PRICE	**Bbl QUANT**	**T SALE**		
	w.128	100 USD	4000 Bbls	400 000USD	200 000USD	200 000USD
	w.129	100	6000	600 000USD	290 000 USD	310 000 USD

		USD	Bbls			
	w.130	100 USD	8000 Bbls	800 000USD	350 000 USD	450 000USD
	Total		18 000 Bbls	1800 000 USD	840 000 USD	**681 000USD**

Fig. without taking in accout the price schedule

CHAP XI I I I II I I I I section 4: **THE PROSPECTS COST ANALYSIS COMPARISON**

PLATEFORM 402	**Well Name**	**TOTAL SALE**			**TOTAL COST**	**PROFIT**
		U PRICE	**Bbl QUANT**	**T SALE**		
	TOTAL WELLS PRODUCTION	**100 USD**	**25 085 Bbls** Bbls	**2508500 USD** USD USD	**1 283 272 USD** USD	**1 585 228 USD** USD
PLATEFORM 307	**Well Name**	**TOTAL SALE**			**TOTAL COST**	**PROFIT**
		U PRICE	**Bbl QUANT**	**T SALE**		
	TOTAL WELLS PRODUCTION	**100 USD**	**35839 Bbls**	**3610900 USD**	**1076000 USD** USD	**2 507 900 USD** USD

PLATEFORM 406	**Well Name**	**TOTAL SALE**			**TOTAL COST**	**PROFIT**
		U PRICE	**Bbl QUANT**	**T SALE**		
	w.128	100 USD	4000 Bbls	USD	USD	USD
PLATEFORM 308	**Well Name**	**TOTAL SALE**			**TOTAL COST**	**PROFIT**
		U	**Bbl**	**T SALE**		

		PRICE	QUANT			
	TOTAL WELLS PRODUCTION	100 USD	18 000 Bbls	1800 000 USD	960 000 USD	**840 000 USD**

CHAP XI I I I II I I I I I section 5: **ELECTION FIELD BOARD**

ORLY FIELD		**PESTOIL FIELD**	
PF 402	**1 585 228 USD**	**PF 406**	**272 000 USD**
PF 307	**2 507 900 USD**	**PF 308**	**681 000 USD**

FIELD ADOPTION CRITERIAS

This field adoption criterias will be based upon the appreciation of the:

CHAP XI I I I II I I I I I section 6: **ELECTION FIELD ECONOMIC PERFORMANCE ORDER:**

FIELD PERFORMANCE ORDER			
1	**PF 307**	**2 507 900 USD**	
2	**PF 402**	**1 585 228 USD**	
3	**PF 308**	**681 000 USD**	
4	**PF 406**	**272 000 USD**	

CHAP XI I I I II I I I I I section 7**THE RISK BALANCE RIGHTS**

FIELD PERFORMANCE ORDER			**ENVIRONEMENTALS RISKS**	**SOCIAL RISKS**
1	**PF 307**	**2 507 900 USD**	Used fluids(Muds & others susceptible to throw into the sea or a stream)	
2	**PF 402**	**1 585 228 USD**		**Terrorists presence**
3	**PF 308**	**681 000 USD**		
4	**PF 406**	**272 000 USD**		

CHAP XI I I I II I I I I I section 8: **PROSPECTS ANALYSIS**

First analysis view:

If the company has got suffiscient money, it can decide to commit on PF 307 because the PF 402 require patience to exploit because of the terrorists presence**.**

Second analysis view:

If the company doesn't have enough money to resolve the environnemental risks, they could not also commit in a terrorist environnement**.**

So, the PF 307 and PF 402 are goint to be put aside, the PF 308 will be put in first operation order, followed by the PF 406 as follow:

FIELD PERFORMANCE ORDER	PF	PROFIT	ENVIRONEMENTALS RISKS	SOCIAL RISKS
1	**PF 308**	**681 000 USD**	Used fluids(Muds & others susceptible to throw into the sea or a stream)	
2	**PF 406**	**272 000 USD**		**Terrorists presence**
4	**PF 307**	**2 507 900 USD USD**	The time left will allow the ris environnement resolutions.	
5	**PF 402**	**1 585 228 USD**	This PF will be put in further program till the Terrorism end in the region.	

CHAP XI I I I II I I I I I section 9: THE STRATEGIES FOR ADOPTING ECONOMICALLY PROFITABLE PROSPECTS

The prospects selections is adopted after all the prospects survey comparison.

The strategies employed to reach those objectives will help for targeting the prospects that have a higher probability of success.

This mastery of prospects and Fiedl bassins pass through the good interpretation of diagraphies

And a 3 D geologic method.

The conditions of a good interpretation of diagraphies

The strategies to adopt economically profitable prospects must be based upon:

°a selection of higher potentials wells

° prospects Costs beneficial analysis comparison

CHAP XI I I I II I I I I I section 9.1: THE SELECTION OF HIGHLY POTENTIAL COMPARED WELLS

This selection is made through the comparison of prospect wells.

Their potential characteristics take into account above the set of economic criteria, the following criterias also valuable are:

A good porosity

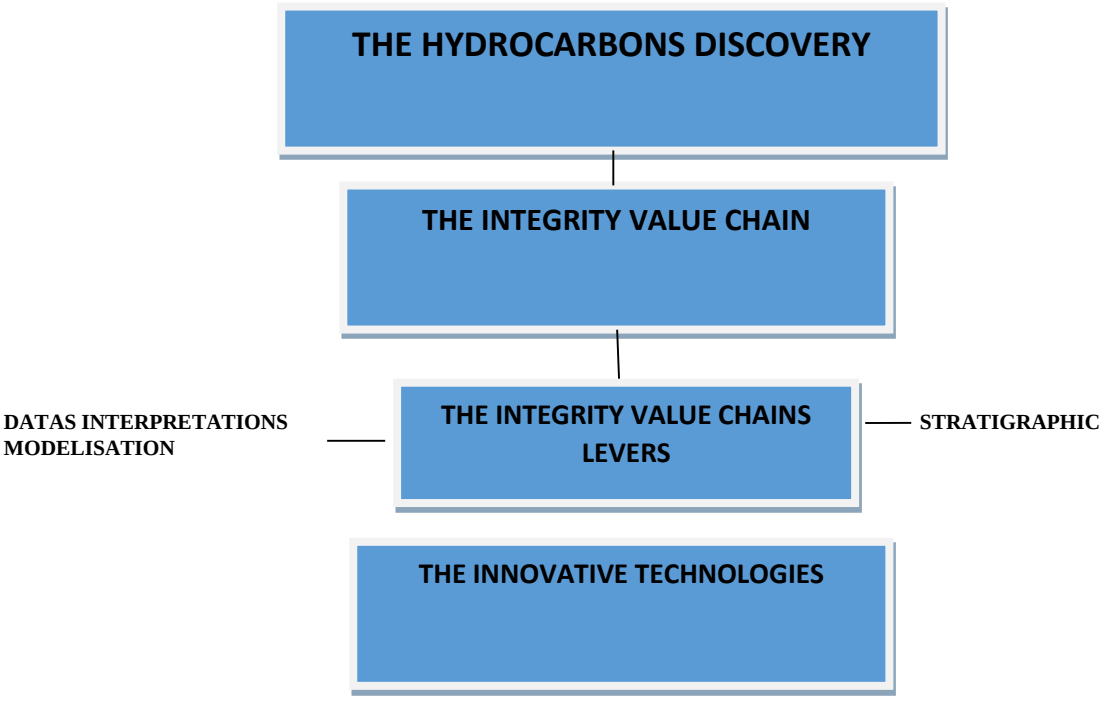
A good permeability

CHAP XI I I I II I I I I I section 10: **OIL RESEARCH MANAGEMENT AND OPERATIONAL PROCESS GOVERNANCE**

The innovative technologies useful for reinforcing the oil trap with a mastery of costs approach.

The succes of discvered hydrocarbons and of drilled wells, depend as we mentionned here in is obtained through the integrity of the oil value chain along the research stage to the production stage.

Thus, this integrity can only be guaranteed through the development of oil tools innovatives technologies.



CHAP XI I I I II I I I I I section 11: **<u>THE DISCOVERY OF HYDROCARBONS</u>:**

The discoveries of hydrocarbons depend on five conventional evaluation which are:

1 The presence of a main roch

2 The generation and expulsion of hydrocarbons in sufiscient quantity

3 Existence of migration ways

4 Existence of a

5 The presence of a coverture roch

To better anderstand here in after the integrity value chain, it’s of a great importance to various five conventional items that guarantee the hydrocarbons.

1.1 The presence of a main roch
1.2 The generation and expulsion of hydrocarbons in sufiscient quantity
1.3 The existence of migration ways
1.4 Existence of a
1.5 The presence of a couverture rock

CHAP XI I I I II I I I I I section 12: **THE INTEGRITY VALUE CHAIN IN THE RESERVOIR SURVEY OF FIELDS AND PROSPECTS**

The interest of the substancial problematic about the discovery of oil, lyes from the global positioning system, to the appraisal wells through the sismic operations.

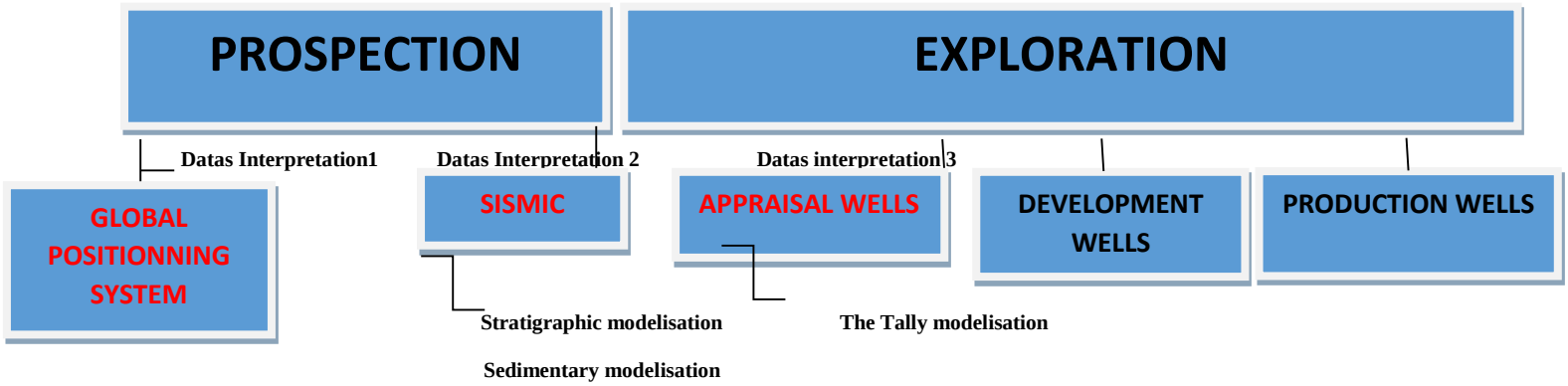
The global positioning system concerns with spotting from a certain altitude level the presence of hydrocarbons throung the return of magnetic signals reflecting from hydrocarbons content region.

Once the global positioning system has spotted the oil presence, the remaining surveys will be determined during the sismic for the hydrocarbons presence target and through the appraisal wells survey to determine the reservoir content.

Thus, when the sismic survey does'nt spot the hydrocarbons presence, then there will be no ambition to proceed follow up works, because at this time, the proof of evidence of no oil presence is established.

Therefore, the accrued interest lyes from the sismic stage to the appraisal wells stage,

CHAP XI I I I II I I I I I section 13: THE CHARTFLOW



RESERVOIR TARGET VIEW OPERATIONALITY

Here we are going to demonstrate how the oil Reservoir is localized.

To target the oil reservoir, it's necessary to mud logger are going to collect data from the measure weight and deph Team wich describe the nature of matter content ino the well.

So in order of priority/

- The collected data From the MWD must confirm if the well content is garnished with shale content.

-The mud loggers must compare their cuttings data interpretations (that localize too the oil content zone, ie, the reservoir) with the Measure weight and deph team to see if those data are the same or not.

Or if those data indicate converge to indicate the oil reservoir.

According to the geological era scale, each country has its geological formation wich is characterised by major formation levels formed since the tectonic plates.

→ To better illustrate this, let's take one of the Congo bassins exemple.

.

CHAP XI I I I II I I I I I section 14: **THE CONGO BASSIN STRATIGRAPHIC MODEL**

	Age	Tectoniques	chronostaratigraphy	Formation			
	Recent						
Tertiary	pleistocene						
	pliocene						
	Miocene						
	oligocene						
	Eocene						
	paléocene						
crétaceous	Maastrichtian						
	campanian						
	santonian						
	coniacian						
	Turonian						
	cenomanian						
	Albian						
	Aptian						
	Barremian Néocomian						
	jurassic						

CHAP XI I I I II I I I I I section 15: THE MBOUNDJI FORMTION RESERVOIR

For instance Mboundji's Field, to spot the zone where the oil is supposed to exist

	Age	Tectoniques	chronostaratigraphy	Formation			
	Recent						
Tertiary	pleistocene						
	pliocene						
	Miocene						
	oligocene						
	Eocene						
	paléocene						
crétaceous	Maastrichtian						
	campanian						
	santonian						
	coniacian						
	Turonian						

	cenomanian						
	Albian						
	Aptian						
	Barremian Néocomian						
	jurassic						
	permian						
	carbiniferous						
	Pré cambrien						
	cenomanian						
	Albian						
	Aptian						
	Barremian Néocomian						
	jurassic						
	permian						
	carbiniferous						
	Pré cambrien						

LE MODELE

	Age	Tectoniques	chronostaratigraphy	Formation			
	Recent						
Tertiary	pleistocene						
	pliocene						
	Miocene						
	oligocene						
	Eocene						
	paléocene						
crétaceous	Maastrichtian						
	campanian						
	santonian						
	coniacian						
	Turonian						
	cenomanian						
	Albian						
	Aptian						
	Barremian Néocomian						
	jurassic						

CHAP XI I I I II I I I I I section 16: THE TARGET OF THE OIL POINT COAST TRAP

CHAP XI I I I II I I I I I section 17: **THE TABLE OF THE CONVERGENCE STAGES INTERPRETATIONS**

RESEARCH STAGE	**CONVERGENCE**	**OBJECTIVE OF**		

	RESEARCH	CONVERGENCE		
GPS SISMIC	Int 2= int 1	The sismic data must meet the GPS Datas		
SISMIC DRILLING HORIZONTALE WELLS	Int3= int 2	The ingeneer of the operator must deseign a drill program convergent to the sismic data		
SISMIC DIRECTIONNAL DRILLING		1The operator must Deseign a drilling program convergent to the sismic data 2 The directional driller must deseign a program convergent to the sismic program 3 The driller must perform the drilling operation in compliance with directional drilling datas.		
DEVELOPPEMENT WELLS				

THE INNOVATIVE TECHNOLOGIES

The oil research project are now requiring new technologies, because their success can't be enured without the use of dynamic and modern tools.That point is the point that diistinguish companies nowadays.Among those tools, the market has produced **:**

1: The HPC HIGH PERFORMANCE COMPUTING

It's a plateform interpretation sismic module.it's a tool that determine the underground patrimoine, determining the prospects criterias.its' a stacking spatial.

Its' leader in the salt, one of the more difficult context to visualise

2: THEGOAL (Geology operations active learning system)

A simulator meticulously developped, wich improve the geologist's formation and evaluation.

3: THE SMARTROOM: For monotorin drilling operation by the drilling experts located in Head office from a remote control.

THE TABLE OF THE CONVERGENCE STAGES INTERPRETATIONS.

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e.totalenergy.com

oil costs Audit '' OBAMI ETOU Brice

END

THE GOOD GOVERNANCE SYNTHESIS

A THE GOOD ADMINISTRATIVE GOVERNANCE

THE PRINCIPAL AND THE AGENT RELATIONSHIP

I.1-THE CHIEF EXECUTIVE OFFICER CENTRAL AUTHORITY POWER REINFORCEMENT

I.2-THE SUBSIDIARIES MANAGERS CENTRAL AUTHORITY POWER REINFORCEMENT

I.3 THE COLLABORATION BETWEEN MANAGERS

I.4-THE COLLABORATION BETWENN MANAGERS AND THE CHIEF EXECUTIVE OFFICER

1-REPORTING POLITIC RESPECT

2-HIERARCHICAL REPORTING POLITIC RESPECT

3-RESSOURCES ELEMENTS TRANSMISSION IDENTIFICATION

1-FROM SERVICE TO SERVICE

2-FROM ENTITY TO ENTITY

3-FROM TO

B THE GOOD OPERATIONAL GOVERNANCE

RECALL (I) ELEMENTS

II-THE MANAGEMENT BY OBJECTIVES

III- THE OPERATIONAL MANAGEMENT REQUIREMENTS

IV-INDICATORS ANALYSIS

IV.1 TEH ECONOMIC INDICATORS

PERFORMANCE INDICATORS	-operational budget performance indicator - General budget performance indicator	
REAL MARGIN INDICATORS	-operational budget Forseen real margin - General budget Forseen real margin	
REQUIRED REAL MARGINS	operational budget Forseen required margin - General budget Forseen required margin	

IV.2 LOGISTIC SERVICES SCHOLASTIC ELEMENTS

CHRONOMETRY	-Timeline chargement -Transport Timeline (Tracks Timeline) Discharge Timeline -Operation Timeline	
QUANTITY FACTOR	- Number of logistic personal to host from the logistic services -	-Know the number of Bedrooms in the living camp -Know the personal placement in cabins/ positions or category

IV.2 DRILLING OPERATIONS SCHOLASTIC ELEMENTS

CHRONOMETRY	-Timeline chargement -Transport Timeline (Tracks Timeline) Discharge Timeline -Operation Timeline	
QUANTITY FACTOR	- Number of Drilling personal to host from the drilling company -	-Know the number of Bedrooms in the living camp -Know the personal placement in cabins/ positions or category

IV.3 PRODUCTION OPERATIONS SCHOLASTIC ELEMENTS

CHRONOMETRY	-Timeline chargement -Transport Timeline (Tracks Timeline) Discharge Timeline -Operation Timeline	
QUANTITY FACTOR	- Number of Drilling personal to host from the drilling company -	-Know the number of Bedrooms in the living camp -Know the personal placement in cabins/ positions or category

IV.4 CATERING SCHOLASTIC ELEMENTS

CHRONOMETRY	-Safety Stock Mastery	
QUANTITY FACTOR	- Number of catering personal to host in the living camp.	-Know the number of Bedrooms in the living camp -Know the personal placement in cabins/ positions or category

IV.5 OPERATIONS MANAGEMENT PROBLEMS SOLVING MASTERY

CHRONOMETRY	**OPERATIONAL PROBLEMS**	
PROBLEMS TO MONITOR	1-Mud leaks caused by cracks. 2-Differential sticking drilling problems. 3-Fishing solutions	

IV.6 SUPPLY CHAIN MANAGEMENT INDICATORS

CHRONOMETRY		
INDICATORS TO CONTROL		

IV-8 SAFETY AND RISK MANAGEMENT REINFORCEMENT

Technical comitee creation for forseeing, analysing and mitigating risks periodically (Before capaings)

With resp

With respect to the contextual situation.

MAKE A STRATEGIC USE OF HAZARDS REGISTER TO

Pay attention on this register integrity in order to account the amount value to spend for next campaign.

Top holding management must detain the register at the end of every operations, wells, or every campaigns.

II COSO 2

1 Environnement

2 fix

3 ind

4 Risk environnement

5 Risk mitigation

6 Activity control

7 financial information integrity.

8 Pilotage

IV.9 FINANCIAL AUDIT GOVERNANCE

CHRONOMETRY	FINANCIAL ASPECTS	RECOMMANDATIONS
INDICATORS TO CONTROL	-Interest rate -change rate -Matter price (oil or…)	-Use the sensitive analysis to master all macroeconomic situations around the Business'envirronnement.
ACCOUNTS REVISION	Verify where the following accounts are depreciated Stock Creance Immobilization Etat de rapprochement Stock Etat de rapprochement Creance Etat de rapprochement Immobilization Balance after inventaire Income computation.	

COST AUDIT GOVERNANCE

	FINANCE	COSTS
STRATEGY	Grasp in mind the Business strategy Master the exploitation site process	
OPERATION		Master the engine oil content ,or consuming The track kilometers The personal working hours The personal daily costs The Machine functioning

		required hours The Machine functioning hours
FINANCIAL INFORMATION		

THE INNOVATIVE TECHNOLOGIES

1: The HPC HIGH PERFORMANCE COMPUTING

2: THE GOAL (Geology operations active learning system)

A simulator meticulously developped, wich improve the geologist's formation and evaluation.

3: THE SMARTROOM: For monotorin drilling operation by the drilling experts located in Head office from a remote control

4: DFA DOWNHOLE FLUID ANALYSIS:

-Optimise the DFA acquisition thanks to a referee from its fluid experts in course of operations.

This technology save tens of million of dollars.

RESEARCH METHODOLOGY

In this paragraph, I describe the research mehod used.

I- DATA COLLECTION TECNICS

A- SAMPLE

Tere are two types: The probabilist sample that is founded on mathematical theories and non probabilists Mathematics not founded on probabilists theories.

Source : Achieved, thanks to my personal experience of 13 yeras working on oil plateforms for wich 5 total years have been acomplished half time on off shore and.

Onshore, and the remaining time in accounting

Our researches have been founded on professional experience developped throug daily parobabilists mathematics theories, non probabilist's mathematics theories and above all on the basis of the scholastic programs that help compute the duty ordonnacement, the Track kilometer.

The present experienece at a cost control position provided us with a large knowledge of all the oil value chain which have been ever more increased thanks to the present research done.

B- Observation

The daily operational Transactions I observe, and the technical operations I have assisted for 13 years on site, help me describe the oil field process with its major problems in exploitation as in the core oil Business.

This technics has been used to ensure the good procedures understanding But in sum,it has much served to control the reliability of the informations.

C- Interview

We have came toward some specialits to make sure and hear about the deph and standard of some technical aspects that we endevoured to supervise on sites.

II- The information Collection Tools and

The collect of informations in such researches require the use of relevant tools providing reliable informations.

a- Documentary Researches.

For that we have used the certified public accountant 21 state income tax edition and the the certified public accountant financial reportin and accounting.

A- Data analysis Tools

The tables built have been made through Word and Excel software.

Those tables have been inspired for some, from the daily work I do at my cost control in a national subsidiary oil company.

CONCLUSIONS

In effect the research, is an activity that commits a good unmber milited partners ranging generally from two to three with at the center a general partner.

Thus they are all linked by a contract,which drive them to common strategic involvement of contractual,functional and operational order at various transversal levels of those firms which intrude an integrity of corporate governance for a better mater and control of firms and research operations in all the stages of this activity for which risk sources by matter of intervention seem unavoidable along the various stages of exploration considering the complexity of the environnement and the level of complexity of the operations.

The weakness of the control bodies notably, The impertinence of the human ressources management, The lack of effectiveness of management control, all constitute factors that can be at the origin of dry wells.

As regard this thesis based upon oil research and development from the exploration stage to the production stage,is a thesis developed in the care on one side to capitalize the return on experience gotten at a cost control position of the core of one of the main and heavy activities of the operational oil sector'' an oil National drilling subsidiairy in a more deepened and standardized dimension,and on another hand,in the objective to deseign a governance audit referential document serving in a global optic as an anlysis guide of all the oil value chain,from the research to the production through the drilling.

The thesis presents some imperfect shape, hazards, limits and bad governance practice in each subsidiairy, and provide with a hint of solution tracks.

It's developed in a way to help fill the gap of the managerial weakness og general Managers at the head of oil organization from technical profil and vice versa,help fill the gap of general managers from mere financial and administrative profil who are in charge the management of oil companies from operational sector.

Its richness content tient à the operational research for resolving uncertain and random problems that occasion the margins part of transactions and operations of a so important and complex field where all the scientific, literary, leagal subjects operate.

Among those tools, make part linear programming tools that respond to the questions related to continuous and discrete variables, to the palnning deseign help.

The apport to the governance directives already kwown and developed in asynthesised manner has been done to capitalize the added value of the thesis.

This work fruit provides with prescise canevas of analysis, with efficace tools deseinged and ready for a certain exploitation of the overall cost control value chains, financing and investment strategies in a market en proie to fluctuations aggregats.

From the point of view of operations, some efforts have been provided to mix highly managerial analysis to the oil research operatin practices in dry said wells.

A cette fin, Managerial causes have been mentione with a juxtaposition of re orientations managerial requisition facilitating the implementation of dynamic helping the operations success.

The thesis present scientific inputs that helps to determine the probability of hydrocarbons presence in a formation and establish bottom Hole assembly reorientation spotting measures seemingly able to loop the hydrocarbon reservoir target.

ITHE RISK MANAGEMENT

In the middle of this first century, there's no firm that operate without considering environmental risks.

Going from industrial to commercial firms.

The safety and environmental risks have become ever more subject of a particular attention.

Here below, we present some proposals that can hold sustainably the activity and impact positively the firm's finance.

I.1 THE IMPLEMENTATION OF A TECHNICAL COMITEE TO MASTER THE SAFETY AND ENVIRONNEMENTAL RISKS.

A good governance must create a technical comitee wich siege to draw the operational risk matrix.

This comitee is as important as we can say because in oil firm,like in any business risks can change with respect to the material or equipment newly acquired.

The vetust operating material

The environmental localization (where the Business operate)

I.1 THE STRATEGIC RISK MANAGEMENT TOOLS TO IMPLEMENT BY THE COMITEE

The safety and environmental comitte will:

1 Deseign an operations risks matrix containing job's stages,their associate risk and their residual risk;

The comitee must siege where's change in what we reaveled in the above mentioned lines.

2 The comitee meeting at the end of the compaign operations

The safety and environmental comitee must siege in order to consolidate the last hazards register of the field affecting the mechanical department.

The electric department, and the operational department.

By doing so, this register will allow to the holding Top management and the sunsidiaries managers to hold a traceability on the materials to buy or the on the amount to spend for the material maintenance useful for next campaign..

II A COMPLIANVE DEPARTMENT

BASSINS MASTERY 3D

MAITRISE DES BASES DONNEES

Assurer l'assurance d'une rentabilité economique ou d'une Maitrise des couts

2 L'equilibre du portefeuil.

Le FR en temps de stand bys et temps d'opération depend on the contract signed between the holding and the subsidiaries.

This contract must determine if the subsidiary is obliged to function in an autonomous way.

For what regard the operation stage, the contract signed between the holding and subsidiary must precise:

If the project management is going to require

A share production contract like with a multinational.

If the subsidiary must depend on the allocations provided by the holding; if it's the case, the contract must precise the mode, the interest, the allocation mechanism, and also the reimbursement mode of management.