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TURKMENISTAN: POST TRAINING REPORT

NIS Institutional Based Services Under the Energy Efficiency and Market Reform Project
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Central Asian Republics
Oil & Gas Sector Reform Program

U S Agency for International Development (USAID)
New Independent States
Energy Sector Institutional Reform Project
Central Asian Republics

Final Report

Prepared for

U S Agency for International Development
Bureau for Europe and NIS
Office of Environment, Energy and Urban Development
Energy and Infrastructure Division

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I INTERNATIONAL PETROLEUM ECONOMICS

A Objective

The objective of the course was to acquaint local government officials with economic reality of competing in the world energy market and to develop an understanding of the economics of competing for capital investments, and sales to oil & gas markets

B Target Audience

The course was planned for Financial and Economic managers from various government ministries as well as technical personnel who have assumed managerial roles and who are involved in negotiating with foreign energy companies Nineteen people were sent by various agencies to the course

C Course Description

The course covered concepts of time value of money, calculation of return on investment, and various criteria for prioritizing investment using some illustrative examples of capital investment projects in petroleum operations Examples included evaluation of exploration investments, production projects, enhanced petroleum recovery projects, refinery investment, recovery of natural gas liquids, pipeline investments, etc In the case of exploration investment, emphasis was placed on the impact of different parameters such as royalty, different kind of bonuses, production sharing, and taxes on profits The concept of "fair rate-of-return" was investigated from the differing view points of host governments and that of multinational oil & gas companies The relationship between risk and required rate of return was discussed

D Materials and Training Methodology

The materials for this workshop were made available in both Russian and English, and included a Basic Manual on International Petroleum Economics Copies of all these materials have previously been supplied All of the instruction was provided by Bhamy Shenoy

E Participant Evaluation

Participants generally rated the course as good to very good

F Instructor's Report Attached

Attached to this overall Training Report is the individual instructor's report for this course

II BASICS OF OIL AND GAS ACCOUNTING

A Objective of the course

The objective of the course was to acquaint financial and accounting personnel in various government ministries with international accounting principles, and the need to present income statements and balance sheets prepared in compliance with these rules to potential foreign investors The course also helped Hagler Bailly to identify personnel to attend advanced accounting course and become trained, practicing accountants responsible for maintaining the country's oil & gas records to international accounting standards

B Participants

The participants consisted of 24 chief accountants, deputies, directors and heads of various departments (financial analysis and reporting, project finance, treasury, economics, credit, foreign investment, etc) from various government agencies state enterprises and institutes including the Ministry of Oil and Gas Industry and Mineral Resources, Ministry of Economics and Finance, State Bank, the Competent Body for Development of Hydrocarbon Resources, State Agency for Foreign Investments, Ministry of External Economic Relations, the state enterprises of Turkmengas, Turkmenneft, and Turkmengeology, and the institutes of Oil and Gas and Polytechnic

C Course Description

This course covered basic and advanced principles and concepts of oil & gas accounting and auditing in two separate programs The course included the link between accounting practices, managerial finance and project economics, standard accounting practices (General Accounting Practices or GAP) as applied to oil & gas, fiscal systems as applied to oil & gas, and internal audit control as applied to production agreements and other contracts and arrangements A major goal of this short-course was to identify candidates for additional training as professional accountants to maintain the country's oil & gas records to international standards

D Course Plan and Materials

The training program plan called for the instructor to conduct 2 workshops (Basic & Advanced Oil & Gas Accounting) each consisting of 16 hours of in-class discussion and review of case problems The two work books, which had been prepared by the University of Houston, were based on USGAAP and intended to introduce the basic concepts and accounting principles for oil and gas production companies The course plan and materials did not cover Oil & Gas financial reporting and disclosures

E Presentation

Contrary to the original plan of delivering a 2-day workshop to cover the accounting concepts methods and case problems of Workbook I, to be followed by another 2-day workshop covering Workbook II the workshop as presented was condensed to enable both Workbooks I & II to be delivered in a one 2-day course Combining the two courses gave the participants an opportunity to obtain an overall view of all the oil and gas accounting concepts included in both Workbooks In addition to the course materials, the instructor had prepared 71 slides which highlighted the topics covered in the two books The slide presentation deviated somewhat from the books by focusing on international property interests and joint ventures rather than U S property interests and operating practices The slides presentation also included a brief presentation and examples of financial reports and disclosures of companies reporting based on to USGAAP

F Participants Evaluation

Some participants may have been overwhelmed by the amount of material, partly because it was condensed from a 4 day course into 2 days Further, the audience did not have a basic knowledge of Western accounting principles Turkmenistan's chart of accounts consist of less than 99 general ledger accounts and no attempt is made to account for revenue or costs by department, cost centers, location, products, etc It seemed difficult, therefore, for the participants to appreciate the need for generating responsibility and management reporting, to perform allocation and distribution of costs by departments and locations, etc , to implement internal controls, develop accounting policies and procedures, etc Overall the critique summary and comments are fairly reflective of the results of the course and were good or very good

G Instructor's Report Attached

Attached to this overall Training Report is the individual instructor's report for this course

III INDEPENDENT REGULATORY AGENCY[1]

A Objective of the Course

The objective of the course was to introduce the concept of regulation of private industries by administrative agencies, in order to achieve public goals without state ownership of the enterprises

B Participants

Participants included senior technical and managerial government officials who are, or likely to become, regulators of a future regulatory agency or employees of a regulated industry Government and private lawyers who would likely practice before a regulatory agency were also included

C Course Description

The course covered the procedure and process for establishment of central government regulatory agencies and their operations Instruction included legislation designed to establish such agencies, and properly delegate legislative power Accent was on energy agencies in various countries, and subjects covered include procedures for formal adjudication, information gathering, hearing process, rule-making procedures, legal effect of rules, agency remedies and review, scope of judicial review, information disclosure, and traditional exercise of both formal and informal authority

D Materials and Training Methodology

The materials for this workshop were made available in both Russian and English, and included a Basic Manual, a Model Oil & Gas Regulatory Agency Concept Paper, and 45 Overhead Transparencies Copies of all these materials have previously been supplied, and are attached by reference All of the instruction was provided by C John Sanders Training on the 15th, and the first three quarter-day sessions on the 16th, utilized a lecture/discussion methodology designed to combine a presentation of new concepts with an active instructor/participant interaction and discussion The primary tools of this training method are well designed key-information overhead transparencies coupled with leading questions The final session of the two-day workshop was an open question and answer session

E Evaluation of Activities

The lecture/discussion methodology in the classroom was successful, although this group of participants was not uniformly active A reception , held during the final night, was successful

[1]The seminar was sponsored by AED

in advancing the professional relationship between Hagler Bailly personnel and certain key individuals among the participants

F Instructor's Report Attached

Attached to this overall Training Report is the individual instructor's report for this course

IV STRATEGIC PLANNING

A Objective of the Course

The above workshop was held as a part of giving technical assistance to the Permanent Expert Group (PEG) on the development of a national strategy for the hydrocarbon sector of Turkmenistan

B Participants

Participants included senior managerial government officials who are involved in the strategic planning process for the country

C Course Description

Course covered the procedure and process for establishment of central government regulatory agencies and their operations

D Instructor's Report Attached

Attached to this overall Training Report is the individual instructor's report for this course

V INTERNATIONAL PETROLEUM AGREEMENTS[2]

A Objective of the Course

The objective of the course was to introduce the concepts inherent in the motivations behind and formation of, international petroleum agreements A further course objective was to analyze different kinds of agreements, and to understand the economic impacts of various terms within each kind of agreement

B Participants

Participants included senior managerial government officials who are likely to become involved, directly or indirectly, in negotiations between the Competent Body and an oil firm seeking to engage in petroleum operations in Turkmenistan

C Course Description

The course began by discussion of the different participants--governmentsand petroleum firms--and the reasons why each participant would be motivated to enter into an agreement of some kind for petroleum operations The participants were alerted early in the course that the economic impact of certain terms could be devastating to negotiations and that negotiating adversaries needed to be aware of the minimum goals that could be "deal-breakers " The terms of Production Sharing Agreements were investigated in depth, with investigation into how terms in a Service Contract, Concession Agreement, or other property based agreement would differ An economic model was used to demonstrate how modification of any one economic term could affect the final net present value of the life of an agreement

D Materials and Training Methodology

The materials for this workshop were made available in both Russian and English, and included a Basic Manual, a Model Production Sharing Agreement Concept Paper, and numerous Overhead Transparencies Copies of all these materials have previously been supplied, and are attached by reference All of the instruction was provided by R Patrick Grammar, and William R James The Instructors utilized a lecture/discussion methodology designed to combine a

[2]The seminar was sponsored by AED

presentation of new concepts with an active instructor/participant interaction and discussion The primary tools of this training method are well designed key-information overhead transparencies coupled with leading questions The final session of the two-day workshop used projection of a computer spreadsheet to demonstrate how changing variables such as the cost of capital, the rapidity of cost recovery, the Turkmen "R" factor, pricing scenarios, profit oil sharing, and other factors would affect the net present value of the life of a petroleum project

E Evaluation of Activities

The lecture/discussion methodology in the classroom was successful, and this group of participants was uniformly active A reception , held during the first night, was successful in advancing the professional relationship between Hagler Bailly personnel and certain key individuals among the participants

F Instructor's Report Attached

Attached to this overall Training Report is the individual instructors' report for this course

APPENDIX A

AGENDA FOR WORKSHOP ON INTERNATIONAL PETROLEUM ECONOMICS

AGENDA FOR WORKSHOP
ON INTERNATIONAL PETROLEUM ECONOMICS

DAY 1

9 00 AM	Welcome
9 15 AM	Workshop Objectives
9 30 AM	Time Value of Money Cash Flow Analysis, Discounted Cash Flow Rate of Return
11 00 AM	Coffee Break
11 15 AM	How International Oil Companies Allocate their Capital among Competing Projects?
12 00 AM	How to Evaluate a Typical Exploration Project? (Sensitivity Analysis Using Computer)
1 00 PM	Lunch
2 00 PM	Forecasting of Crude Oil Prices Short Term and Long Term
4 00 PM	Coffee Break How to Evaluate a Typical Marketing Project?

DAY 2

9 00 AM	Discussion on subjects covered the previous day
9 30 AM	How to evaluate a typical refining project?
10 30 AM	Coffee break
10 45 AM	How to evaluate a pipeline project? How to evaluate a gas processing plant project?
12 00 AM	How to evaluate risk in exploration and production projects? Monte Carlo Technique
1 00 PM	Lunch Break
2 00 PM	What lessons can we learn from three oil shocks? Role of OPEC and IEA
3 00 PM	International gas market, pricing issues, demand, etc
4 00 PM	Coffee break
4 15 PM-5 15 PM	What happens when government interferes with the petroleum market?
5 15 PM-5 30 PM	Wrap up

Questionnaire to be filled in
by the International Petroleum Economics Seminar Participants

Name

Department or Company

Designation

Are you familiar with the time value of money?
Very familiar Somewhat familiar Not at all familiar

Are you familiar with discounted cash flow of return?
Very familiar Somewhat familiar Not at all familiar

Have you estimated cash flow for any investment project?
Many times Few times Not at all

Which areas of the petroleum operations are you interested in?
a Exploration b Production c Refining d Marketing
e Pipeline f Gas Operations g Natural Gas Plant Processing

Are you familiar with the operations of OPEC?
Very familiar Somewhat familiar Not at all familiar

Are you familiar with the operations of International Energy Agency
Very familiar Somewhat familiar Not at all familiar

World crude oil prices are around $ 18 to 20 per barrel now Please give your best estimates of crude oil prices for 2010

Current OPEC production is around 26 million barrels per day Please give you best estimate of OPEC production for 2010

Please suggest any subject that might be of interest to you and that is not covered on the workshop manual or mentioned above

International Petroleum Economics Seminar Participants

	NAME	ORGANIZATION	POSITION
1	Jumaev V	State Bank for Foreign Economic Relations	Head of the Project Financing Department
2	Purliev D	State Bank for Foreign Economic Relations	Head of the Department for Credits of Energy Complex
3	Yashgeldi Kakayev	Ministry of Oil and Gas Industry and Mineral Resources	Head of the Department of Analysis and Perspectives of Oil and Gas Industry of the Development
4	Annagozel Rejepova	Ministry of Oil and Gas Industry and Mineral Resources	Head of the Economic Analysis and Reporting Department
5	Serdar Kadyrov	Competent Body for Use of Hydrocarbon Resources	Expert of the Control Department
6	Arslan Tuvakov	Competent Body for Use of Hydrocarbon Resources	Expert of the Negotiation Department
7	Khoncharov N	Competent Body for Use of Hydrocarbon Resources	Head of the Management Committee on the contract area Nebit-Dag
8	Taganov Y	Competent Body for Use of Hydrocarbon Resources	Head of the Management Committee on the contract area Block 1
9	Khalylov Muhammethur	Oil and Gas Institute	Deputy Head in the field of geological exploration
1	Kerim Komekov	State Concern "Turtkmengas"	Expert

Nazar Berdıev	State Concern "Turkmengas"	Head of Economıcs and Fınance Department
Sılap Karajaev	State Agency for Foreıgn Investments	Head of the Economıc Analysıs Department
Svetlana Mamedova	State Agency for Foreıgn Investments	Head of the Department for Regıstratıon of Investment Projects and for the Control over Implementatıon of these projects
Begench Sergınov	State Agency for Foreıgn Investments	Head of Investment Projects Evaluatıon Department
Aman Udenazarov	State Agency for Foreıgn Investments	Expert
Maya Karayeva	State Corporatıon "Turkmengeologıa"	Deputy Head of Economıc Analysıs Department
Irına Mukhammedova	Turkmen Polytechnıc Instıtute	Head of the Department of Economıcs, and adminıstratıon of constructıon, cıty economy and energy ındustrıes
Maya Karakhanova	State Trade Corporatıon "Turkmenneftegas"	Head of Economıcs Department
Khojamuradova Jennet	Mınıstry of External Economıc Relatıons	Chıef Specıalıst of the Summary Economıc Analysıs Department

Summarized Evaluation Form of the International Petroleum Seminar Participants

Please give your evaluation of the interpreters

	BAD	SATISFACTORY	GOOD	PERFECT	NO ANSWER
Lectures			11	4	
Discussions			9	6	
Translation of materials (manuals, tables)		1	11	2	1

Evaluation of the training program

	NO	NOT REALLY	TO SOME EXTEND	MOSTLY	YES	NO ANSWER
Program corresponded to your professional level			4	7	3	1
Most of the program was related to your work		2	4	4	4	1
Lecturer took into consideration peculiarities of your country			7	2	5	1
You will implement obtained knowledge in practice		1	2	2	9	1

Please give your evaluation of the organization of the seminar

	NO ANSWER	BAD	SATISFACTORY	GOOD	PERFECT
Schedule of the seminar	8		4	3	3
Seminar arrangements	2		5	8	

How would you evaluate the following aspects of your study?

	NOT APPLICABLE	VERY BAD	BAD	GOOD	VERY GOOD	I CAN NOT DECIDE	NO ANSWER
Teaching abilities of the lecturer				5	10		
Technical level of the lecturer				8	7		
Contents of the program				8	7		
Methods and forms of teaching				8	6	1	
Balance of theoretical material and practical activities				9	6	1	
Consulting of the lecturer	1				11	2	1
Group discussions	1			1	8	5	
Course pace	2				11	2	
Printed materials					7	8	
Possibility to establish professional connections	1				7	7	
Defining ways to use the knowledge obtained during the seminar	1				9	3	2

Now would you evaluate your training?

perfect -	1
good –	12
satisfactory –	0
bad –	0
very bad –	0

What type of training programs would you like to have in future?

Lectures (only)–	1
Seminars (only)-	5
Conferences –	0
Seminars and conferences –	1

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Lectures seminars and conferences –	3
Lectures and seminars –	4
No answer –	1

What topics you are interested in most of all?

- Production Sharing Agreements
- Economic analysis of investment projects, evaluation criteria factors influencing the objective evaluation of investment projects
- Investment Management
- Petroleum Projects Financing Economics of Oil and Gas Sector
- Criteria to define price for natural gas on the world market Criteria to define transit tariffs
- Production Sharing Agreements Export of Hydrocarbons
- Finance markets, project financing
- Methods of Project Financing
- International criteria of evaluation of investment projects Methods of investment projects financing
- Perspectives of development of the oil and gas industry in FSU countries
- Perspectives of development of oil and gas industry with the development of future technologies (solar energy, wind energy, atomic energy, and others)
- Differences in accounting of Socialist and European systems
- Special features of international projects for exploration and production of hydrocarbons
- Contract for the purchase of equipment Prognosis of development of oil and gas industry in Turkmenistan
- Planning and Marketing International experience of the oil and gas industry

Do you have any proposals for improvement of future programs?

- Use methods of calculations which are being used in Turkmenistan
- Implement all the aspects of the seminar to the conditions of Turkmenistan
- Give more information on the FSU countries
- The audience should be prepared to the economic and technical terms which are to be used at the seminar
- All the columns of calculation should be numerated

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Instructor's Report

WORKSHOP ON INTERNATIONAL PETROLEUM ECONOMICS CONDUCTED IN ASHGABAD, TURKMENISTAN ON FEBRUARY 17th & 18th, 1998

While writing on the proceedings of the above workshop, the productivity of the workshop and finally the lessons learnt as a result of conducting the workshop it is useful to give some background information on the tremendous efforts that we had put to hold this workshop

Actually this workshop was initially planned to be given during my trip to CAR in November after holding similar workshops in Almaty, Kazakhstan and Tashkent, Uzbekistan We had made all the arrangements to hold the workshop on November 11th and 12th The potential participants in the workshop had filled in the questionnaire that we had sent prior to the workshop to assess their familiarity on some of the concepts that would be discussed during the workshop The hall had been booked, interpreters had been selected and briefed on the workshop, the media people had been invited to attend the inaugural etc On the eve of the workshop, Mr Kurbonov the executive director of the Competent Body (CB), our counterpart, called Will James and Kris Gupta to express his displeasure for planning to hold the workshop without informing them He directed them that at the beginning of the workshop we should announce that it was being conducted without the sponsorship of the government of Turkmenistan

We were surprised by the turn of the events The facts were far from what Mr Kurbonov had mentioned The CB knew very well about the workshop and they had even offered their conference room for holding the workshop Unfortunately Mr Kurbonov s assistant Mr Rashid Redjepov did not have the courage to contradict his boss and inform him about the true state of affairs Though we could have still gone ahead with the workshop, the USAID asked us to postpone the workshop to a future date

Having learnt the lesson, we tried to prepare better by covering all the bases to hold the workshop again and planned it for the first week of February However when I came to conduct the workshop on the planned dates, we met with the resistance again with the CB They raised objections like we need to give them a comprehensive human resources development plan and give details of all the workshops we are planning to conduct They wanted the resumes of the resource people conducting the workshops the specific dates of the workshops and not just the approximate dates of the workshops etc We were surprised by these latest developments This led to the postponement of the workshop again We tried to comply with their request by supplying all the information and it was agreed to hold the workshop on February 17th and 18th

Our third attempt was a great success CB did a good job in selecting the right people to attend the workshop They gave us background information about the participants In fact of the workshops I had conducted so far (one in Almaty, two in Tashkent and one in Tbilisi) we got the right people both in terms of the level of the participants as well as representing different oil & gas sector We also got all the questionnaires prior to the workshop As mentioned earlier, I had developed a questionnaire to find out about the knowledge level of the participants on the concepts that I would be covering during the workshops I found out that but for one or two persons the rest were not familiar with discounted cashflow concepts

Though there was adequate amount of participation, in terms of trying to clarify doubts or expressing different opinions etc given the level of the participants, I had expected far more In order to generate interest on the part of the participants and also to illustrate the usefulness of the concepts we had discussed during the two days, I had two case studies One was dealing with the investment in a LPG processing plant in Turkmenbashi and the other was to forecast the energy requirements of Turkmenistan There was good participation in both of these It brought out a number of issues affecting the oil & gas sector like the problems of allowing the product prices to rise to the world level, various ways of raising funds to support investment projects, difficulty in forecasting cashflows, risks involved in investing, the appropriate level of returns required etc

The participants realized that though there is a state body charged with the responsibility to forecast future energy requirements, other public bodies or experts can also express their opinions In many instances it may be useful to have public discussions on such strategic factors When I first introduced that subject and asked for the opinion, the participants were extremely hesitant to express their opinion They felt that it was not the proper thing to do

One of the participants strongly argued that the old way of calculating the required pipeline tariff based on a "profit" which is a certain percentage of operating expenses was the proper thing to do He did not like the cost of service concept that I had suggested which takes into consideration profit based on allowing certain return to the investment It was interesting that most participants readily agreed with the approach that I had suggested This was because the person who had disagreed was the only one who was familiar with old concept and had used that concept Others though somewhat familiar with the old concept did not have to use it

With one or two exceptions, every one agreed with the need to calculate the return based on time value of money and also the need to evaluate new investment using the yardsticks of DCF rate of return Most also mentioned that they would try to adapt that methodology in their work

I felt that we tried to teach too many new concepts in two days What is a one semester course, we tried to teach in two days It is just not possible for many to absorb all those concepts in such a short time It would have been useful to hold review courses during my

following trips to Ashgabad Though we had distributed the manual prior to the workshop not many had really read it Holding the workshop gave us an opportunity to make many acquaintances in the oil & gas sector It also gave us an opportunity to learn more about the oil & gas sector It might have been a sheer coincidence that after this workshop we start having more interaction with our counterpart CB and they start asking for greater technical assistance Holding the workshop gives an opportunity to develop trust with our counterpart and also have friends in different departments who are likely to extend greater cooperation while working on projects like restructuring or working on National Strategy etc

(Report prepared by Dr Bhamy V Shenoy on August 1st, 1998)

APPENDIX B

AGENDA FOR WORKSHOP ON BASICS OF OIL & GAS ACCOUNTING

AGENDA FOR WORKSHOP
ON BASICS OF OI L AND GAS ACCOUNTING SEMINAR

DAY 1

- Petroleum industry profile and characteristics
- What are Generally Accepted Accounting Principles and what is the role of the U S Securities and Exchange Commission in determining financial reporting standards ?
- Valuation of Oil and Gas assets - historical cost and current value accounting
- Successful efforts and full cost methods of accounting for acquisition of mineral rights, exploration, development and production
- General overview of the financial functions of an international oil & gas company
- Drilling of a well Commercial discovery, the decision to complete a well and placing it in production

DAY 2

- Accounting for oil and gas revenue
- Production accounting
- Joint venture accounting
- International property interests
- Financial reporting and disclosures of oil & gas operations
- Measures of company performance

Oil and Gas Accoutning Seminar Participants

NAME	ORGANIZATION	TITLE
1 Kadyrov Serdar	The Competent Body for Development of Hydrocarbon Resources	Expert of the Control Department
2 Bekiev Chary	The Competent Body for Development of Hydrocarbon Resources	Head of Negotiation Department
3 Taganov S	The Competent Body for Development of Hydrocarbon Resources	Chairman of the Block 1 Management Committee
4 Khancharov N K	The Competent Body for Development of Hydrocarbon Resources	Chairman of Management Committee ofHebit-Dag Area
5 Mamedova Svetlana	State Agency for Foreign Investments at the President of Turkmenistan	Head of Registration of Investments Projects and
6 Durdylykov Kakajan	State Agency for Foreign Investments at the President of Turkmenistan	Expert of Economic Analysis Department
7 Karajaev Silap	State Agency for Foreign Investments at the President of Turkmenistan	Head of the Department of Economic Analysis
8 Kakajanov Begench	State Concern "TurkmensGas"	Deputy Chief Accountant
9 Khojamuradova Jennet	Ministry of External Economic Relations	Chief Specialist of Economic
10 Annaovezov O	Ministry of External Economic Relations	Expert
11 Khalylov	Oil and Gas Institute	Deputy Director Exploration Field
12 Oganesyan Marina	Ministry of Oil and Gas Industry and Mineral Resources	Head of Analysis and Reporting Department
13 Kulyavtseva Galina	Ministry of Oil and Gas Industry and Mineral Resources	Chief Accountant

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14	Ishankuliev T	State Concern "TurkmenNeft"	Chief Accountant of the NGDU (Oil and Gas Producing Enterprise) "NebitDagNefT, Bumn Field
15	Koyunliev Durdymurad	State Concern "TurkmeNeft"	Head of Finance Department
16	Atabalyeva Ogulnur	Ministry of Economics and Finance	Chief Specialist of Department of Financial Policy, Accounting and
17	Orazov Atamyrat	State Trade Corporation "TurkmenNefteGas"	Deputy Chief Accountant
18	Karakhanova M	State Trade Corporation	Head of Economics Department
19	DigorO V	Turkmen Polytechnic Institute	Economics Department
20	Babylova	Turkmen Polytechnic Institute	Economics Department
21	Jumaev V	State Bank for Foreign Economic Relations	Head of the Project Financing Department
22	Purliev D	State Bank for Foreign Economic Relations	Head of the Department for Credits of Energy
23	Maya Karayeva	State Corporation "Turkmengeologia"	Deputy Head of Economic Analysis

Summarized Evaluation Form of the Oil and Gas Acounting Seminar Participants

Please give your evaluation of the interpreters

	BAD	SATISFACTORY	GOOD	PERFECT	NO ANSWER
Lectures		1	6	7	
Discussions		1	6	7	
Translation of materials (manuals, tables)			7	7	

Evaluation of the training program

	NO	NOT REALLY	TO SOME EXTENT	MOSTLY	YES	NO ANSWER
Program corresponded to your professional level			6	5	3	
Most of the program was related to your work		3	2	4	5	
Lecturer took into consideration peculiarities of your country	1	2	2	5	4	
You will implement obtained knowledge in practice		1	7	4	2	

Please give your evaluation of the organization of the seminar

	NO ANSWER	BAD	SATISFACTORY	GOOD	PERFECT
Schedule of the seminar	5		1	6	2
Conditions of the seminar				7	7

How would you evaluate the following aspects of your study?

	NOT APPLICABLE	VERY BAD	BAD	GOOD	VERY GOOD	CAN NOT DECIDE	NO ANSWER
Teaching abilities of the lecturer				10	4		
Technical level of the lecturer				10	4		
Contents of the program	1			5	8		
Methods and forms of teaching				8	5	1	
Balance of theoretical material and practical activities	1			9	2	1	1
The lecturer's advice				8	5	1	
Group discussions				12	1	1	
Course pace				8	6		
Printed materials				3	10		1
Possibility to establish professional connections				9	2	2	1
Defining ways to use the knowledge obtained during the seminar	2			9	1	2	

Now would you evaluate your training?

perfect -	1
good –	7
satisfactory –	6
bad –	0
very bad –	0

What type of training programs would you like to have in future?

Lectures (only)–	0
Seminars (only)-	9
Conferences –	0
Seminars and conferences –	2
Lectures, seminars and conferences –	3
Lectures and seminars –	3
No answer –	0

What topics are of most interest for you?

- Financial analysis Auditing
- Marketing Discount
- Accounting for revenues from oil and gas sales Preparation of financial statements and evaluation of a company's activity
- International accounting standards (not only for oil and gas sector but for other industries as well)
- Preparation of quarterly and annual financial statements Practical lessons on accounting
- Software used in administrative management
- Accounting and finances
- Other seminars planned by HB
- Efficiency analysis Methods of efficiency increase
- Topics discussed in the seminar
- Legal regulation of issues discussed

Do you have any proposal for improvement of future programs?

- More practical examples
- More examples related to activities of foreign companies and state organizations in Turkmenistan The best way of financial reporting in transition period
- Use terminology that is being used currently in Turkmenistan
- To have seminars on comparison of the local accounting system with foreign systems To take into account specifics of taxation in Turkmenistan
- We need such kind of programs as we do not have enough sources for getting information

INSTRUCTORS FINAL REPORT

OIL AND GAS ACCOUNTING WORKSHOP
Sponsored By
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
Presented By
HAGLER BAILLY SERVICES, INC

Location Grand Turkmen Hotel Conference Center
Ashgabat, Turkmenistan

Date March 6 and 7, 1998

Instructor Dag Nikolai Lillegraven

EFFECTIVENESS OF TRAINING

Course Plan and Materials

The training program plan called for the instructor to conduct 2 workshops (Basic & Advanced Oil & Gas Accounting) each consisting of 16 hours of in-class discussion and review of case problems The two work books, which had been prepared by the University of Houston, were based on USGAAP and intended to introduce the basic concepts and accounting principles for oil and gas production companies The main accounting concepts and principles covered included (1) the full cost, and the successful efforts accounting methods, (2) the acquisition and conveyances of minerals rights, (3) geological, drilling, and production costs, (4) oil and gas reserves, (5) capitalization and amortization of exploration and development costs, (6) and joint ventures Each chapter was supplemented with numerous case problems The course plan and materials did not cover Oil & Gas financial reporting and disclosures

Presentation

Contrary to the original plan of delivering a 2-day workshop to cover the accounting concepts, methods and case problems of Workbook I, to be followed by another 2-day workshop covering Workbook II the workshop as presented was condensed to enable both Workbooks I & II to be delivered in a one 2-day course Justifications for the change in plan were (1) the fact that Russian translations of the Workbooks were not available in time for the participants to read the case problems in advance of the class discussions, (2) a significant number of the participants were not accountants, (3) it was questionable whether presenting the second half of the workshop on a future trip, perhaps weeks or months later would be very effective, we were concerned that we might not be able to assemble the same participants for the advanced workshop

Combining the two courses gave the participants an opportunity to obtain an overall view of all the oil and gas accounting concepts included in both Workbooks It also allowed me to keep the non accountants in the group reasonably interested by moving more quickly from topic to topic And for those who were accountants, and interested in more than just the accounting concepts they would hopefully gain sufficient knowledge during the course presentation to enable them to read and understand the methods and case problems described in the Workbooks It may still be worthwhile, however, to conduct the second workshop and review some of the case studies in the Workbooks and to teach additional accounting functions such as accounting for pipeline and gas transmission & distribution, which were not covered in the workshop or the books

In addition to the course materials, the instructor had prepared 71 slides which highlighted the topics covered in the two books The slide presentation deviated somewhat from the books by focusing on international property interests and joint ventures rather than U S property interests and operating practices The slide presentation also included a brief presentation and examples of financial reports and disclosures of companies reporting based on USGAAP

Participants

The participants consisted of 24 chief accountants, deputies, directors and heads of various departments (financial analysis and reporting, project finance, treasury, economics, credit, foreign investment, etc) from various government agencies, state enterprises and institutes including the Ministry of Oil and Gas Industry and Mineral Resources, Ministry of Economics and Finance, State Bank, the Competent Body for Development of Hydrocarbon Resources, State Agency for Foreign Investments, Ministry of External Economic Relations the state enterprises of Turkmengas, Turkmenneft, and Turkmengeology, and the institutes of Oil and Gas and Polytechnic

The participants were attentive and appeared genuinely interested in most of the topics presented but I had great difficulties in engaging the participants in discussions and raising questions By the second day questions were more forthcoming and discussions more interesting but many of the questions asked related more to their immediate work situation than to the topics presented in the course material The questions concerned specific issues such as comparing the terms of their model production sharing contract terms to that of other developing countries, auditing practices, contracting & procurement, U S and international business practices

Participants Evaluation

The participants completed an evaluation form at the end of the workshop Some participants may have been overwhelmed by the amount of material, partly because I condensed the 4 day course into 2 days, but also because the audience did not have a basic knowledge of Western accounting principles Turkmenistan's chart of accounts consist of less than 99 general ledger accounts and no attempt is made to account for revenue or costs by department, cost centers, location, products, etc It seemed difficult, therefore, for the participants to appreciate the need for generating responsibility and management reporting, to perform allocation and distribution of costs by departments and locations, and to implement internal controls, develop accounting policies and procedures, etc Overall the critique summary and comments are fairly reflective of the results of

the course and pretty much in line with my own comments and recommendations as summarized below

Comments and Recommendation

Proposals for increasing the effectiveness of the training

Except for the participants who had traveled to Ashgabat to attend the seminar, most participants could walk to their offices in less than 10 minutes Inevitably, this resulted in a number of participants returning to their offices from time to time Consider keeping the seminars at a more distant location, although in Turkmenistan this may be difficult

Give the instructor an opportunity to review local accounting, tax, and petroleum regulations and contract terms to become familiar with how oil and gas operations and accounting is conducted in the country Such a point of reference would be tremendously helpful in understanding the training needs and engage the participants in discussions

Distribute work books at least one week in advance This will give interested participants an opportunity to review the material and formulate questions in advance Unless the participants have previewed the case problems there is not much point in discussing the cases in the workshop Considering the participants background and lack of exposure to Western accounting principles and methods, it would probably have been better to conduct the first workshop as a general introduction to Western accounting principles and standards, with the second workshop being oil and gas specific

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APPENDIX C

INDEPENDENT REGULATORY FUNCTION SEMINAR

Independent Regulatory Agency Function

Seminar Participants

	NAME	ORGANIZATION	TITLE
1	Kadyrov Serdar	The Competent Body for Development of Hydrocarbon Resources	Expert of the Control Department
2	Atajıkov Taganmamed	The Competent Body for Development of Hydrocarbon Resources	Expert
3	Taganov Yusupserdar	The Competent Body for Development of Hydrocarbon Resources	Chairman of the Block 1 Management Committee
4	Khancharov Nurmamed	The Competent Body for Development of Hydrocarbon Resources	Chairman of Management Committee of Hebit-Dag Area
5	Gavrilov Boris	State Agency for Foreign Investments at the President of Turkmenistan	Lawyer
6	Udenazarov Aman	State Agency for Foreign Investments	Deputy Head of the Department
7	Khalylov Muhamednur	Oil and Gas Institute	Deputy Director in Geological Exploration field
8	Sharapov Vladimir	Oil and Gas Institute	Deputy Head of the Resources and Reserves Department
9	Mavyev Nurmurad	Chief State Inspection	Deputy Head of Standards Institute
10	Khojamuradova Jennet	Ministry of External Economic Relations	Chief Specialist of Economic Analysis Department
11	Kurbansahatov Kerim	Ministry of External Economic Relations	Assistant Minister
12	Atahanov Tahir	Ministry of External Economic Relations	Chief Specialist

13	Begenchev Guvanch	Ministry of External Economic Relations	Chief Expert of Legal Department
14	Kazakov Dadebai	Ministry of Oil and Gas Industry and Mineral Resources	Chief Expert of the Department for External Economic Relations and Investments
15	Starozhuk Natalia	Ministry of Oil and Gas Industry and Mineral Resources	Deputy Head of the Economic Analysis and Statistics Department
16	Maya Karayeva	State Corporation "Turkmengeologia"	Deputy Head of Economic Analysis Department
17	Koinekov Batyr	State Corporation "Turkmengeologia"	Chief Engineer
18	Kurbanov Batyr	State Trade Corporation "TurkmenNefteGas"	Chief Expert of External Economic Relations Department
19	Hojamuhamedov Baimurad	State Trade Corporation "TurkmenNefteGas"	Head of the Gas Export Department
20	Hajiberdyev Hajiklych	State Concern "TurkmenNeft"	Head of the Operating-Technical Department
21	Vengerov Boris	State Concern "TurkmeNeft"	Chief Legal Advisor

FINAL EVALUATION REPORT
Independent Regulatory Agency

SUMMARY B RECOMMENDATIONS
Overall the participants reported positive feedback on this program

Participant Profile	
Number of participants	21
Gender	18 male, 3 female
Average age of respondent	38
Countries	Turkmenistan
Organizations represented	Governmental organization

How would you assess your training experience

excellent	1
good	14
satisfactory	3
bad	0
poor	0

Translation/Interpretation difficulties

	Don't know	Never	Sometimes	Often	Very often
Lectures		9	7		
Discussions		10			
Written materials		3	5		
Personal Communication		9	2		

Have you achieved Your Objectives participating in the seminar?

Not at all	
To a slight extend	4
To a medium extend	13
To the great extend	1

How would you evaluate the following aspects of your training?

	Not applicable	Very poor	Poor	Good	Very good	Undecided
a Training ability of instructors			2	10	6	
b Technical expertise of instructors				9	5	2
c Program content			1	7	8	1

d Instructional methods and delivery		3	12	1	
e Balance between theory and practice	1	2	6	1	2
f Consultations with instructors		2	6	4	
g Group discussions		1	7		1
h Pace of instruction		5	9		
i Written materials		2	5	10	
k Internship		1	8	1	3
l Opportunities to develop professional linkages	1	2	6		4

Was the Seminar relevant to Your work?

4 indicated Very much ,
9 indicated, ' A moderate amount
4 indicated, Very little ,
1 indicated, 'Not applicable'

Will you be able to apply in your work the knowledge obtained at the Seminar?

4 indicated ' Very much'
8 indicated A moderate amount
6 answered 'Very little , and 'Not at all

What topics you are interested in most of all?

- Model OGRA and Legislation on Agencies
- Issues related to oil and gas industry
- Issues of oil and gas exploration
- International oil and gas contracts Procedure of certification of hydrocarbon resources
- Economic aspects of activities of oil and gas companies
- Describe how foreign companies, like MOBIL, operate in other developing countries
- Consideration of cases in international arbitration
- International arbitration
- Oil and Gas Business
- Marketing
- Issues of transportation
- Global energy policy in the world Experience of different countries in creating of National Companies
- Creation of legislative basis to attract foreign investments Stimulation of local investors
- For the Ministry of External Economic Relations organize the seminar on Development of Free Enterprize Zones
- International Organizations (economics, oil and stability)
- Issues of petroleum products marketing Tariffs and Pricing of petroleum products of the Caspian Sea Issues of transportation of petroleum products

WORKSHOP - TRAINER FINAL REPORT
INDEPENDENT REGULATORY AGENCY LAW
Sponsored By
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
Presented By
HAGLER BAILLY SERVICES, INC
And
AED/GLOBAL TRAINING

Location Grand Turkmen Hotel
Ashgabat, Turkmenistan

Date July 15th, and 16th 1998

Instructor C John Sanders

Materials and Training Methodology The materials for this workshop were made available in both Russian and English, and included a Basic Manual, a Model Oil & Gas Regulatory Agency Concept Paper, and 45 Overhead Transparencies Copies of all these materials have previously been supplied, and are attached by reference All of the instruction was provided by C John Sanders Training on the 15th, and the first three quarter-day sessions on the 16th, utilized a lecture/discussion methodology designed to combine a presentation of new concepts with an active instructor/participant interaction and discussion The primary tools of this training method are well designed key-information overhead transparencies coupled with leading questions The final session of the two-day workshop was an open question and answer session

Evaluation of Activities The lecture/discussion methodology in the classroom was successful, although this group of participants was not uniformly active A reception, held during the final night, was successful in advancing the professional relationship between Hagler Bailly personnel and certain key individuals among the participants

Description and Evaluation of Participants The participants were non-homogeneous in terms of profession, including engineers, geologists, lawyers, and economist These 21 participants also represented 10 different ministries or institutions The participants also spanned a wide range in terms of age and job level This group included people I would describe as very senior second-tier decision makers (age early to mid 50s), mid-level managers (age mid 30s), and also several entry level lawyers less than two years out of law school (age 24 to 27) The older, more senior people are far more responsive to the training Recent college graduates seem to think they have just learned everything, and don=t require any additional training The older participants, with their maturity and greater insight into

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complex matters of life and government make better students and are much more likely to engage in MEANINGFUL discussions

Interpreters Two interpreters were provided and alternated between sessions Their work was satisfactory in providing consecutive interpretation As always happens at times both instructor and participants become frustrated at not being able to communicate directly and make their views understood The key to minimizing such frustration is the distribution of translated materials and the use of overhead transparencies that have been translated and can be used for referral

Program Logistics The workshop was held on the top-floor of the Grand Turkmen Hotel in Ashgabat Lodging was not provided for the participants as they all lived locally Lodging for the instructor was excellent The classroom was nearly perfect for this type presentation The overhead projector worked well, but a requested writing board was not available Refreshments at the break were very good, as was the Waite staff The general setting was very pleasing Transportation was not provided

Participant Evaluation Participants completed an evaluation form at the end of the workshop, but as of the time of the preparation of this report the results of this evaluation had not been made available to the instructor There were no changes to the program as it proceeded as planned

Summary and Recommendations A key to this workshop, as with any other, is for the instructor to have adequate materials for the time allowed, to be well versed enough in the subject to be flexible in time usage, and to be skilled in classroom dynamics Some participant groups are very talkative and others are not This particular group was not as active in class discussions as other groups encountered in Central Asia The group was surprisingly well disciplined it that there was very little coming-and-going Workshops held in the capital city where everyone works, frequently leads to one group showing-up the first day, but an entirely different group the second day

Consideration should be given to moving future presentations to isolated locations such as a local resort It raises the level of people attending, and most importantly eliminates people coming-and-going (although this was not a major problem in Ashgabat)

Given one instructor and one fairly specific subject, two or three days is the proper time Four or five day seminars MUST have activities outside of a classroom, field-trip, etc

Allow more pre-workshop time for interaction between Instructor and Interpreters

Award each participant a Certificate of Completion

APPENDIX D

2-DAY DISCUSSIONS ON NATIONAL STRATEGY

AGENDA FOR
2-DAY DISCUSSIONS ON NATIONAL STRATEGY

(SCHEDULE AUGUST 4 - 5, 1998)

Session	From	To	Speaker	Subject of Discussion and Comment
DAY 1				
I	9 00	9 45	Mr Arazov or Mr Babaev Dr Shenoy	Objective of the 2-day discussions Strategic Planning Concepts
II	9 45	10 45	Dr Shenoy	World Oil Markets Potential markets for Turkmen crude oil, netbacks in different markets, and world crude oil price scenarios
	10 45	11 00		Break
III	11 00	12 00	Dr Shenoy	World Gas Markets Potential market for Turkmen gas likely competitors, and gas netbacks in different markets
IV	12 00	12 30	Dr Shenoy	World Refining Supply, Demand, and Economics
V	12 30	13 00	Turkmenneftegas	Market for Turkmen Petroleum Products
VI	13 00	14 00		Lunch
VII	14 00	15 30	Turkmenneft	Oil Strategy Oil exploration and development strategy Oil transportation strategy (pipeline & other)
VIII	15 30	15 45		Break
IX	15 45	17 15	Turkmengas	Gas Strategy

				Gas Exploration and development Gas pipeline alternatives and strate
DAY 2				
X	9 00	10 30	Turkmenneftegas	Marketing & Refining Strategy Marketing of surplus product Regional co-operation for improve netback
XI	10 30	10 45		Break
XII	10 45	11 30	?	Turkmenistan's Energy Requireme Energy and petroleum products pricing policy Gas vs electricity Import/export of electricity Energy intensive Industries
XIII	11 30	3 30	All Participants	Strategy Discussions (continuing during lunch) What we need to do to implement gas, refining, and marketing strategies? What are the challenges we are likely to face under different scenarios in implementing those strategies? What structural changes are required to achievethe mission of National Strategies? What kind of human resources and trainingwe need to implement the strategies? Identify three most significant criti factors on which the success of our strategy depends on
	3 30	3 45		Break
XIV	3 45	5 15	Dr Shenoy	Cashflow Projection for Alternative Strategies

Follow-up Work to
Complete National Strategy

STRATEGIC PLANNING WORKSHOP PARTICIPANTS

	NAME	ORGANIZATION	TITLE
1	Babaev, Khoshgeldy	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Deputy Minister of Oil and Gas Industry and Mineral Resources of Turkmenistan
2	Khalylov, Mukhammetnur	Oil and Gas Institute	Deputy Director Geology and Exploration
3	Sharapov, Vladimir	Oil and Gas Institute	Head of Reserves and Resources Department
4	Atamamedov, Egenmamed	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Head of Analysis and Development Perspectives Department
5	Oganesyan, Marina	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Head of Joint Economic Analysis and Reports Department
6	Redjepova, Annagozel	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Head of Finance Departmen
7	Fedin, Vladimir	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Head of Geology and Geophysics Department
8	Hojamuhamedov Baimurad	State Trade Corporation "TurkmenNefteGas"	Head of the Gas Export Department
9	Kakaev, Yagshigeldy	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Head of the Perspectives and Development Department
10	Babayan, Derenik	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Head of Geology Department

11	Mamedov, Meretdurdy	Ministry of Oil and Gas Industry and Mineral Resources of Turkmenistan	Head of Department for Foreign Economic Relations and Investments
12	Khydirov, Mahtumkuly	Cabinet of Ministers of Turkmenistan	Head of Geology Department
13	Atageldiev, Orazmukhammet	State Concern "Turkmengeologia"	Chief Geologist

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Instructor's Report
A REPORT ON STRATEGIC PLANNING WORKSHOP HELD IN ASHGABAD ON AUGUST 4th and 5th

The above workshop was held as a part of giving technical assistance to the Permanent Expert Group on the development of a national strategy for the hydrocarbon sector of Turkmenistan We had been working with the then chairman of Mr Kurbonov, of the PEG in outlining the steps involved in developing such a strategy, holding a short symposium to the PEG members on the strategic planning process, developing scenarios etc As we were making progress, Mr Kurbonov transferred his responsibility to Mr Arazov the Minister of Oil & Gas He in turn asked us to work with his deputy Minister Mr Babaev After having two meetings with him, we realized that we were not making much progress Also, after promising to gather his PEG members together to draw up a plan of action to develop the plan, he failed to do so We were also given three papers on exploration strategy which had been developed as a part of this committee Those papers were mere recital of reserves and production and they had very little to do with the strategy To overcome the problem of meeting PEG members and also to help them develop the strategy paper, we recommended to Mr Babaev to hold a two-day workshop on the strategic planning

We suggested that I will write a report on the World Oil and Gas Market and present it to the group and other PEG members can prepare their presentations to discuss the possible strategies and operations of their respective departments on subjects like exploration, production, gas marketing strategies, energy demand forecast for Turkmenistan, export pipelines etc I was also to make a presentation on strategic planning concepts and also on refinery economics and refinery supply/demand balance in the region

By giving different examples of international oil companies where there have been able to achieve spectacular successes (example of Conoco constructing a coker refinery in Humber in early 70s when most were constructing hydro-skimmers) to equally spectacular failures (example of the US oil companies continuing to spend huge amount in the US in exploration during the early and middle 80s), I tried to convey both the concepts as well as the difficulty involved in developing a successful and visionary strategic plan I also pointed out how one can reap rich rewards through a successful strategic plan

While discussing the World Oil market, I showed to them how OPEC will continue to play a dominant role in the future and how without their controlling the market, crude prices can collapse to a very low level of less than eight dollars per barrel Still it will not be easy for them to control crude oil prices since non-OPEC will also succeed in increasing their supplies The discussion on the actual behavior of the crude oil prices (1970 –1998) and also the failure of energy economists in making oil price forecasts convinced them the difficulty in predicting the crude oil prices In my report I had given four different price scenarios and suggested that PEG should develop their own price scenarios However overwhelmed by the

uncertainty and wide fluctuations in the crude oil prices, no PEG member came forward with any recommendation We decided to take up this important subject later

By showing the crude oil supply/demand for 2010 for Western Europe I tried to make a point that Turkmenistan is likely to get more or less the same crude oil netback whether they sell in the Mediterranean market or Far East market It is true that the Far East market will expand significantly because of the huge demand increase in China and India and there is also very little market growth in Western Europe In addition the crude production will continue to increase in the North Sea as well as in Western Africa Still Western Europe will continue to need crude supplies from the Middle East and since the Middle East crude producers will set the price in both the markets, but for a small transportation cost differential, Turkmen crude will get more or less the same netback

While discussing the gas market, I impressed upon them the fact that there are more than ten countries in the world who have significantly larger reserves than Turkmenistan and many have reserve/production ratio of greater than 100 Some of them have cost advantage in selling gas to the very markets in which Turkmenistan is also trying to sell Therefore what is important and critical for Turkmenistan is an ability to market its gas reserves For this it should try to convince multinational oil companies like Enron or Shell or try to attract European companies like British Gas, Gasunie, Ruhr gas, Gaz de France etc Under the most optimistic scenario, Turkmenistan can sell 100 billion cubic meters (bcm) and in the low case the sales may be even less than 30 bcm Just nine years back, Turkmenistan could export more than 70 bcm This was only because of the market provided by the old Soviet Union when Turkmenistan did not have to face the free market conditions and economics did not have any role to play By showing the cost numbers quoted in the IEA study, I pointed out how the gas supplies to Western Europe from Turkmenistan are at a cost disadvantage This was the case even in the case of LNG supplies from Algeria and Libya

After discussing the surplus refining capacity in the Caucasus and the Central Asia, I analyzed the world refining capacity Then I dealt with different kind of refineries (hydro skimmers, catalytic cracking and coking) and their economics I was able to show how even on incremental cost basis hydro skimmers and cat cracking refineries could lose money if coking refineries have surplus capacity Using the actual product prices, full cost and incremental cost margins for these three kind of refineries were calculated to show how the incremental cost consideration make it difficult to earn a decent return on refining investment when there is a surplus capacity This led to an interesting discussion on the one billion dollar investment Turkmenistan has undertaken at Turkmenbashi refinery

Mr Baimurad Hodjamuhamedov, the head of Department for export of gas at the State Trading Corporation gave a presentation on historic sales and also on the potential sales in 2005 During his presentation, not once was there a mention of netback or margin He did talk about the transportation cost but only in general terms When I asked the question about

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the profitability of running incremental crude, the first answer given by one of the participants was that the consultants in their study have shown that it was economical Another member pointed out that since it is their own crude production costing very little it makes sense to process it I pointed out that the consultants were using hypothetical product values based on their projection of future profitability and they need to calculate the incremental economics using what they could get in today's market I also pointed out that since they always have the option of selling crude oil they need to compare the economics of alternate cases

Based on the refinery profitability discussion, many started to have doubts about the attractiveness of investing such huge amount at Turkmenbashi refinery During a private conversation with Mr Babaev when I suggested that they could learn many things by doing a post auditing of their refining investment, he reacted positively to my suggestion Many oil companies undertake such post auditing exercise routinely to learn lessons from their experience of investing in large projects

To our surprise no one else was prepared to present any paper When I requested the PEG member for exploration activities to present the exploration strategy paper, he turned around and asked me how he should prepare such a paper and what it should contain Having realized that many members were not prepared adequately to discuss strategies for their respective department, I presented a list of factors which we should consider while preparing a strategic plan to involve them in a discussion The list I suggested contained factors and topics such as the need for restructuring, need to train their managers on modern management philosophy, how to attract foreign investment, what emphasis should be given to gas versus oil exploration, need to develop transportation alternatives, technology, cost of exploration, cost of developing reserves, operating cost, developing cashflows for different scenarios etc

Mr Babaev dealt briefly about their present strategy of allowing the national oil companies to explore onshore and inviting international oil companies for off shore exploration and even for onshore where deep drilling is required He also talked about the need to develop the national oil services companies who have not been able to win tenders even in Turkmenistan According to him there are far too many companies in the oil & gas sector and there is a need for restructuring He also talked about the new National Oil Company being organized to work with the international oil companies and the problems they are facing of manning it with qualified people who are familiar with the modern management They are looking forward to the return of their people who are being trained by Mobil in the US

There was considerable discussion on potential gas export and the role of Russia and of Iran When I pointed out that $32 per thousand cubic meters offered by Russia for their gas to export it to Ukraine was really a good offer considering the fact that they have no other means to export gas, they readily accepted how they are put in the corner According to them, Russia was not going to pay really that amount since the transaction did not involve the

payment of hard currency but payment in goods and that too at exorbitant prices They also mentioned that negotiations are continuing with the Russians to solve the impasse In the case of Iran, they first argued that there is good scope to sell gas to them since Iran will find it more advantageous to buy from them rather than supply from their distant fields However when we did some quick calculation to estimate what it may cost Iran to supply from their own fields when they develop their gas infrastructure, they seem to accept the limited opportunities to sell gas in that market There was considerable discussion on the export potential to markets such as Turkey, Eastern and Western Europe Russia, Georgia, Armenia China, India and Pakistan

When it was pointed out how expensive it is to sell gas into Chinese market and Russia is better placed to supply that market from Eastern Siberia, Mr Babaev argued that there may be a break through in pipeline technology, which would reduce cost of transportation I pointed out how we have been dreaming of different ways of developing vast gas reserves of Alaska to bring to lower 48 states without any success Our discussion on gas export market might have convinced the participants that it is not enough to have gas reserves What is needed is marketing expertise

Along with the views of IEA on the Caspian production (based on the recent IEA study titled Caspian Oil And Gas), I presented a forecast on future production potential that I had prepared I also talked on the economics of different pipeline alternatives There was consensus of opinion that it is in the best interest of Turkmenistan to have multiple pipeline alternatives It became apparent that PEG is hopeful that the pipeline to Pakistan will be started within two years despite the civil unrest in Afghanistan, they will succeed in getting the cooperation of Russia to transport gas to Ukraine and Trans-Caspian and Trans-Iranian pipelines will be built to transport their gas to Turkey and European market
Mr Babaev ended the meeting by suggesting that the PEG members will now develop the strategy papers for their respective department and they would meet with us in smaller groups to clarify their doubts He also mentioned that he would try to get the date extended to complete the project by two months

Lessons Learnt

Prior and during the workshop we had distributed a number of reports (steps involved in strategic planning, background material on strategic planning, cash flow tables for four different scenarios, BP Statistical Review etc, and report on World Oil and Gas Market) to all the PEG members It was sad to see that despite the fact that the task of developing the National Strategy is a high visible project of national importance and that too requested by the President's office, members were not familiar with the reports Even when we asked them to bring these reports (with the exception of BP Report all were available in Russian) to the meeting since we will be going over them, only one or two brought them to the meeting It was not apparent that any PEG member or even Mr Babaev, the chairman was taking the

project all that seriously Perhaps we may be misreading their interest Though it was difficult to deal with Mr Kurbonov the former chairman of PEG he was more interested in the development of the strategy and had greater appreciation for it
It became obvious that though all the PEG members are senior level bureaucrats they are still not familiar with the basic economic concepts despite being exposed to them through various seminars and workshops Though, we might have communicated through many examples the need for economic analysis before investing in any project during this workshop it is very doubtful that we have succeeded in changing their mindset
Our questioning the economics of Turkmenbashi refinery might have succeeded in sowing the seed in the minds of many to doubt the viability of that project It is even possible that it may even lead to the cancellation of the planned three million tons expansion of that refinery which will give just hydro skimming yields

Conclusion

Over all the workshop was a great success in that it gave an opportunity to discuss various sensitive topics like the economics of Turkmenbashi refinery investment, gas exports through Russia, gas sales potential of Iran, possibility of Turkmenistan not being able to sell more than 30 bcm of gas (mere gas reserves, however huge, does not end up in creating market) because of the high cost of transportation, need for restructuring the oil and gas sector etc
We were also able to communicate strategic planning concepts and give some tools and techniques to develop the national strategy

APPENDIX E

INTERNATIONAL CONTRACTS SEMINAR

International Contracts Seminar Agenda

DAY ONE

9 15 - 11 am	OVERVIEW OF THE INTERNATIONAL OIL MARKET, GEOPOLITICAL AND STRATEGIC CONSIDERATIONS TERRITORIAL SOVEREIGNTY AND OWNERSHIP OF MINERAL RIGHTS, PARTICIPANTS IN MINERAL DEVELOPMENT, THE ROLE AND SOURCES OF LAW
11 - 11 30	COFFEE BREAK
11 30 - 1 pm	THE LEGAL FRAMEWORK, CONTRACT TERMS AND TERMINOLOGY
1 - 2 pm	LUNCH
2 - 4 pm	INTERNATIONAL OIL AND GAS AGREEMENTS -ISSUING DEVELOPMENT RIGHTS
4 - 4 30 pm	COFFEE BREAK
4 30 - 6 pm	INTERNATIONAL OIL AND GAS AGREEMENTS - FORMS OF AGREEMENT
6 pm	RECEPTION

DAY TWO

9 30 - 11 am	INTERNATIONAL OIL AND GAS AGREEMENTS - PRINCIPAL PROVISIONS, NEGOTIATION, RISK ASSESSMENT AND RISK REDUCTION
11 - 11 30	COFFEE BREAK
11 30 - 1 pm	JOINT DEVELOPMENT - PARTICIPATION AGREEMENTS,TRANSFERS, ASSIGNMENTS AND JOINT OPERATING AGREEMENTS
1 - 2 pm	LUNCH

2 - 4 pm	ECONOMIC ANALYSIS AND IMPACT OF TERMS
4 - 4 30 pm	COFFEE BREAK
4 30 - 6 pm	INVESTMENT PROMOTION TECHNIQUES, ASSOCIATION OF INTERNATIONAL PETROLEUM NEGOTIATORS MODEL FORM AGREEMENTS AND CURRENT ACTIVITIES

INTERNATIONAL OIL AND GAS AGREEMENTS SEMINAR PARTICIPANTS

	NAME	ORGANIZATION	TITLE
1	Kadyrov Serdar	The Competent Body for Development of Hydrocarbon Resources	Expert of the Control Department
2	Tuvakov Arslan	The Competent Body for Development of Hydrocarbon Resources	Expert of the Negotiations Department
3	Khancharov Hurmamed	The Competent Body for Development of Hydrocarbon Resources	Chairman of the Nebit-Dag Area Management Committee
4	Taganov Yusupserdar	The Competent Body for Development of Hydrocarbon Resources	Chairman of the Block 1 Management Committee
5	Gavrilov Boris	State Agency for Foreign Investments at the President of Turkmenistan	Lawyer
6	Udenazarov Aman	State Agency for Foreign Investments	Deputy Head of the Department
7	Khalylov Muhamednur	Oil and Gas Institute	Deputy Director in Geological Exploration field
8	Sharapov Vladimir	Oil and Gas Institute	Deputy Head of the Resources and Reserves Department
9	Annayev Nurgeldi	Ministry of External Economic Relations	Chief Specialist
10	Atahanov Tahir	Ministry of External Economic Relations	Chief Specialist
11	Durdyeva Amangozel	Ministry of Oil and Gas Industry and Mineral Resources	Head of the Geophysics Department

12 Nurmamedov Muradnıyaz	Mınıstry of Oıl and Gas Industry and Mıneral Resources	Deputy Head of the Department for External Economıc Relatıons and Investments
13 Kulıev K	State Corporatıon "Turkmengeologıa"	Chıef Engıneer
14 Karayeva Maya	State Corporatıon "Turkmengeologıa"	Deputy Head of Economıcs Department
15 Hallyeva Enejan	State Corporatıon "Turkmengeologıa"	Head of Geophysıcs Department
16 Hudaıberdıev Murad	State Corporatıon "Turkmengeologıa"	Geologıst
17 Jafarova Seada	State Trade Corporatıon "TurkmenNefteGas"	Chıef Specıalıst
18 Kekılova Aına	State Trade Corporatıon "TurkmenNefteGas"	Chıef Specıalıst
19 Hojamuhamedov Baımurad	State Trade Corporatıon "TurkmenNefteGas"	Head of the Gas Export Department
20 Hoshanov Temel-Klych	State Trade Corporatıon "TurkmenNefteGas"	Head of the Productıon Department
21 Vengerov Borıs	State Concern "TurkmeNeft"	Chıef Legal Advısor
22 Islamov Yolaman	State Concern "TurkmenNeft"	Deputy Head of the Department for Coordınatıon of JVs and Foreıgn Companıes
23 Annaberdıev Begmurad	State Concern "TurkmenNeft"	Lawyer Department of External Economıc Relatıons
24 Kubatova Elmıra	"BalkanNIPINeft" Instıtute	Laboratory head, scıence secretary

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25	Shasvarova Gulnara	State Bank for External Economic Activity	Chief Economist Department for Energy Complex Loans
26	Hojaev Takhir	State Bank for External Economic Activity	Chief Economist
27	Samovik Eugenya	State Bank for External Economic Activity	Chief Economist

Training Seminar--Instructor Final Report

INTERNATIONAL OIL AND GAS AGREEMENTS

Prepared for

U S Agency for International Development
Bureau for Europe and NIS
Office of Environment, Energy and Urban Development
Energy and Infrastructure Division

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LOGISTICAL INFORMATION

Location Sixth Floor Conference Room
Grand Turkmen Hotel
Ashgabat, Turkmenistan

Date August 27th and 28th 1998

Instructors R Patrick Grammar
Will James

MATERIALS AND TRAINING METHODOLOGY

The materials for this workshop were made available in both Russian and English and included a Course Manual entitled Petroleum Investment Agreements, a Concept Paper on Production Sharing Contracts, approximately 25 overhead transparencies, and a computerized demonstration of a Production Sharing Contract Economic Model Copies of all these materials (excluding the actual computer software) are available upon request The instructors each conducted approximately half of the seminar

The seminar utilized a lecture/discussion methodology designed to combine a presentation of new concepts with an interactive instructor/participant discussion The training tools included a discussion of the overhead transparencies, following by a questioning of the participants which were designed to facilitate group discussion Additionally, different scenarios where constructed utilizing the economic cash flow model in an effort to emphasize the main training point and, again, to facilitate group discussion The Course Manual and Concept Paper were referred to on numerous occasions but were not used as a primary training tool during the seminar

EVALUATION OF ACTIVITIES

The lecture/discussion methodology appeared very successful and facilitated continuing group discussions throughout the two day seminar Use of the overhead transparencies and computerized economic model went smoothly Participant evaluations indicated a positive response to the training in general, and a good to very good rating of the specific aspect of the program

Although a few of the participants originally signed up for the seminar were unable to attend, the attendance level during the seminar remained fairly constant Of those in attendance, only a few were absent at any time during the course of the seminar

A reception held at the close of day one was of value in promoting both a personal and professional relationship between several of the participants and the instructors It also led to

a number of issues being discussed during day two which were of particular interest to the participants

DESCRIPTION AND EVALUATION OF PARTICIPANTS

The participants were a diverse group in terms of age, education and professional expertise The eighteen to twenty-five participants included lawyers, economists, engineers geologists and financial specialists Composition of the group appeared to include two or three very senior people, a large number of senior second-tier decision makers, a group of mid-level technical managers, and a limited number of younger, entry-level, professionals

The participants represented a number of different ministries or state institutions, including the Competent Body for Development of Hydrocarbon Resources, the State Agency for Foreign Investment, the Ministry of External Economic Relations, the Ministry of Oil and Gas, the State Bank for External Economic Activity and the State Concerns, TurkmenNeft and TurkmenGas

Members of all age groups appeared interested in the training materials and easily engaged in discussion sessions The older participants, however, seemed more responsive and likely to utilize the training materials

INTERPRETATION AND TRANSLATION

One interpreter, a part-time employee of Hagler Bailly - Ashgabat, conducted the interpretation for both days of the seminar The instructors noticed little, if any, difficulties in conveying the presentation materials or in understanding the participants comments Participant evaluations indicated an extremely high level of satisfaction with the translation during both lecture and discussion sessions

The written translation of overhead transparencies and course materials also received high marks in the participant evaluation survey

PROGRAM LOGISTICS

The seminar was held in a large conference room at the Grand Turkmen Hotel The conference room was well equipped, and was more than adequate to accommodate the seminar participants Presentation tools such as the overhead, computer and projector worked well The air conditioning system was not working through most of the session which we understand was the result of intermittent electricity in the central portion of Ashgabat

Coffee and food service was above average and aided in creating a professional and comfortable setting for the seminar

PARTICIPANT EVALUATION

Eighteen of the participants completed an evaluation form at the end of the seminar, and some of their comments are reflected in this Final Report Generally, the participants ranked the overall training as good, the translation/interpretation as very good the individual aspects of the program as either good or very good, and the prospects for implementing the training in future work as very good

SUMMARY AND RECOMMENDATIONS

The presentation of this seminar was very timely as the negotiation and drafting of petroleum investment agreements is currently a high profile and very important activity in the development of Turkmenistan's oil and gas sector

In the opinion of the instructors the training, both in terms of content and presentation, was well received by the participants

Recommendations

- Pay particular attention to the participant responses related to topics of interest and recommendations for future seminars found in paragraphs nine and ten of the evaluation forms
- Focus future seminars on technical issues, and compliment the technical discussion with a presentation of western institutional theories
- Continue the effort to ensure that the "right" participants are invited to future seminars