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PROJECT COMPLETION NOTE
FEDERAL REPUBLIC OF YUGOSLAVIA (VOJVODINA)
FIRST PETROLEUM SECTOR PROJECT
(LOAN 2596-YU)

February 20, 1997

**Energy and Environment Division
Central Europe Department**

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CURRENCY EQUIVALENTS

Currency Unit - 1985-1989 Yugoslavian Dinar (YD)
1990- New Yugoslavian Dinar (NYD)

AVERAGE EXCHANGE RATES

(per US\$)

	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
	YD	YD	YD	YD	YD	NYD	NYD	NYD
US\$1.00 = (for above currency units)	289	379	738	2516	28820	11.3*	34.8	NA

*) Note: NYD1.0 = YD10,000 (January 1990)

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS AND ACRONYMS

Nafta-Gas	Radna Organizacija za Istrazivanje i Proizvodnju Nafta i Gasa
YD	Yugoslav Dinar
NYD	New Yugoslav Dinar

VOJVODINA - FISCAL YEAR

January 1 to December 31

Vice President	:	Johannes F. Linn
Director	:	Hans J. Apitz
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FEDERAL REPUBLIC OF YUGOSLAVIA (VOJVODINA)
FIRST PETROLEUM SECTOR PROJECT (LOAN 2596-YU)
PROJECT COMPLETION NOTE

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FEDERAL REPUBLIC OF YUGOSLAVIA (VOJVODINA)
FIRST PETROLEUM SECTOR PROJECT (LOAN 2596-YU)

PROJECT COMPLETION NOTE

PREFACE

This is a Project Completion Note for the components of the First Petroleum Sector Project in the former Socialist Federal Republic of Yugoslavia, that were located in the Autonomous Province of Vojvodina.¹ These components were financed separately by Loan 2596-YU, in the amount of US\$35.0 million. This loan was approved by the Board on June 27, 1985 and became effective on Sept 9, 1986.

The total loan amount for the First Petroleum Sector Project, including Loan 2595-YU for project components in the Republic of Croatia in the amount of US\$65.0 million and Loan 2597-YU for project components in the Republic of Bosnia-Herzegovina in the amount of US\$2.5 million, was US\$92.5 million²

At appraisal project implementation was scheduled to be completed by March 31,1990. This was delayed until June,1992 by late effectiveness of the loan and delays in procurement arising from the hostilities during the later part of the project. Of the loan amount of US\$35.0 million an amount of US\$2.6 million was cancelled. Loan 2596-YU was closed on September 30, 1992 (at which time US\$32.4 million had been disbursed).

This ICR (Preface, Evaluation Summary, Parts I and III) was prepared by Mr. Anton Smit (Consultant), and reviewed by Messrs. Richard Hamilton (Senior Energy Economist, EC2ET), Hans. J. Apitz (Division Chief, EC2ET) and Franz Kaps (Project Advisor, EC2DR).

Preparation of this Note was delayed by the embargo on contacts with the Federal Republic of Yugoslavia. It was started in September 1996 both by the Borrower and the Bank. It is based, *inter alia*, on the Staff Appraisal Report, Loan and Guarantee Agreements, Supervision Reports and information supplied by the Borrower.

¹ Vojvodina became subsequently a part of the Republic of Serbia.

² A Project Completion Report was issued for the Croatia component in August 1993. A Project Completion Note is being issued simultaneously with this note for the Bosnia and Herzegovina component.

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FEDERAL REPUBLIC OF YUGOSLAVIA (VOJVODINA)

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EVALUATION SUMMARY

1. The major objective of the First Petroleum Sector Project (see Part I, Section 3) was to assist Yugoslavia in the development of indigenous energy resources, thereby reducing its dependence on imported energy. In Vojvodina this objective was to be achieved by Loan 2596-YU, which supported a time slice of the exploration and of the well repair and testing programs in that province.
2. The project components in Vojvodina were implemented by Nafta-Gas (Radna Organizacija za Istrazivanje i Proizvodnju Nafta i Gasa) at Novi Sad, the sole company with responsibility for oil and gas exploration and production in that province.
3. Before the start of the project, a project management team was formed comprising senior company operating and administrative staff. This team started its activities right at the start of project implementation. Application for export credits to Yugoslavia proved to be more complex than expected. After mid 1991, some project components became progressively delayed due to hostilities between the Federal Republic of Yugoslavia and the Republic of Croatia so that not all objectives of the project were reached.
4. The composition of the project remained very much as designed at appraisal. However, in 1987 it was agreed between Nafta-Gas and the Bank to include engineering services and equipment for underground gas storage up to an amount of US\$0.7 million. As is normal practice in petroleum operations, a final selection of drilling locations for deep wells for hydrocarbon exploration was made only as results from new seismic surveys, the reprocessing of older seismic data and wells become available and carefully interpreted. All amendments and modifications of the project were made in full agreement between the Bank and the Borrower until 1990, after which, as a result of the sanctions, the contacts with the Borrower became sporadic.
5. Nafta-Gas, being a fully operational petroleum exploration and production company, proved to have the required experienced staff for an efficient technical implementation of the project. Under the project, training on advanced technologies was provided by suppliers and specialized training consultants.
6. It was not possible to rate the project outcome since some activities have not yet been completed because of the sanctions imposed on Yugoslavia by the UN Security Council.

FEDERAL REPUBLIC OF YUGOSLAVIA (VOJVODINA)

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PART I: PROJECT REVIEW FROM THE BANK'S PERSPECTIVE

1. Project Identity

Name: First Petroleum Sector Project
Loan Number: 2596-YU
RVP Unit: Europe and Central Asia
Country: Federal Republic of Yugoslavia (Vojvodina)
Sector: Energy
Subsector: Petroleum

2. Background

2.1 During the two decades prior to the appraisal of the project, hydrocarbon (oil and gas) energy in Yugoslavia progressively replaced the use of coal in the industry, transport and domestic sectors. During that period coal (mostly lignite) consumption, although its energy value nearly doubled, fell as a percentage of used primary energy from 63% to 43%. Percentages of gas and oil consumption, during that same period, rose from 2% to 12% and from 20% to 40% respectively. This trend was foreseen to continue in the coming years. As a consequence of the increased use of hydrocarbon energy, the country was becoming rapidly more dependant on the import of large quantities of gas and oil. As a combined effect of the increased volume of imports and the steep increase of international crude oil prices over that period, the country's costs for imported oil rose from US\$20.0 million in 1965, to US\$ 2 billion in 1982. In addition, in 1983, a volume of 2.9 billion m³ of gas at a total cost of US\$450 million was imported.

2.2 In March 1983, the Federal Assembly of the Socialist Federal Republic of Yugoslavia adopted an economic program for restructuring the economy. Since the energy sector was considered critical to these structural adjustments, the commission advising the Government on the economic program, formulated a long-term strategy for its development. This strategy contained two major elements: first, expanding production from domestic energy resources, such as lignite, coal, hydroelectricity and petroleum; and second, improving the efficiency of energy

consumption, distribution and transformation mainly through reforms in pricing. At the appraisal of the project in 1984, the Bank reviewed and endorsed the Government's strategy and made specific recommendations for the development of indigenous energy resources, rationalization of investment programs, changes to the basis and levels of energy pricing and energy conservation.

3. Project Objectives and Description

3.1 The major objective of the project was to support the Government in its strategy for enhancing domestic petroleum production in two republics and one autonomous province, which at that time were part of the Socialist Federal Republic of Yugoslavia: Croatia, Bosnia and Herzegovina and Vojvodina. This would be done by a project consisting of four major elements; (i) exploration/appraisal; (ii) exploration promotion; (iii) testing and appraisal of existing discoveries, and (iv) underground storage of gas to balance winter and summer demand/supply patterns. The components of the above four major project elements located in Vojvodina were covered by Loan 2596-YU.

3.2 In Vojvodina, the exploration/appraisal element aimed at assisting the state owned oil company, Nafta-Gas, to continue, after its geological exploration in the shallow layers where most of the more clearly recognizable structures had been produced, with exploring wedges and other secondary traps in the vicinity of the known fields, which are more difficult to locate. Also deeper layers, which were thought to offer challenging possibilities, had not been adequately tested. Mapping and testing of these deeper layers required technology and equipment which was at that time unavailable in the country.

3.3 The second project element was exploration promotion. However, in view of the relatively mature stage of oil and gas exploration in Vojvodina, it was not considered opportune to promote the remaining possibilities to the foreign oil industry. The third project element concerning testing and appraisal of existing discoveries was directed at the large number of deep wells in which Nafta-Gas had encountered shows of oil and gas, but where it was subsequently unable to determine whether these could be produced commercially, due to the lack of sufficient high grade testing equipment. The project supported procurement of sufficient equipment and materials for the testing of about 20 of these wells.

3.4 The last project element relates to the highly seasonal gas demand in a country with cold winters and where much of the gas is used for household heating. The resulting oversupply of gas in summer could be balanced by curtailing production from the domestic gas reservoirs, but the shortages in winter often resulted in interruptions of deliveries to a number of factories, which consequently had to cease production during the shortfalls. At project appraisal, Nafta-Gas did not propose funds for the construction of underground gas storage facilities, which store excess gas during summer for later winter delivery. However, in 1987, a request for an allocation of US\$0.7 million for technical assistance and equipment to develop additional storage was made and agreed to by the Bank.

3.5 The above mentioned project components for Vojvodina, as defined between Nafta-Gas and the Bank, were included in Loan 2596-YU for the amount of US\$35.0 million equivalent. This was expected to be supplemented by US\$35.0 million in export credits. It consisted in essence of a time slice of Nafta-Gas's petroleum exploration/development program. Originally the main physical components covered by this loan were:

(a) Exploration, comprising about 2,100 line-km of seismic surveys and the drilling of about 10 deep (3,500 - 5,000 m) exploration wells.

(b) Well Workover and Testing of about 20 previously drilled wells where oil and gas had been encountered which could not be tested due to the lack of critical equipment.

(c) Training abroad and also through seminars organized by international consultants in Yugoslavia for Nafta-Gas technical personnel in modern geophysical exploration, drilling and well completion techniques and special reservoir engineering subjects.

3.6 The total cost of the project, also including the components in Croatia and Bosnia and Herzegovina, was estimated at appraisal at US\$607.9 million. The foreign cost was \$268.4 million. Financing for this amount included funds from internal sources (US\$78.1 million), from export credit financing (US\$97.8 million) and from IBRD loans (US\$92.5 million). The total foreign cost of the components in Vojvodina (without interest) was US\$83.4 million, and the local cost was US\$83.7 million (at the 1985 exchange rate of US\$1.0 = Dinar 200) for a total of US\$167.1 million (Part III, Table 5). As several of the project components were of a purely exploratory nature, no rate of return calculation was made at appraisal. The Borrower for the project components in Vojvodina was Nafta-Gas, which was founded in 1949 as the organization responsible for petroleum exploration and production. Nafta-Gas, as an independent legal entity, was one of the 12 Work Organizations of the Kombinat Nafta-Gas covering the whole sector of oil and gas supply, refining, distribution and marketing. The Bank loan to Nafta-Gas was guaranteed by the Federal Republic of Yugoslavia.

4. Project Design and Organization

4.1 The strategy of the Government to increase domestic production of oil and gas, in order to reduce imports, was fully agreed to by the Bank. There was also full agreement on the way of implementing this strategy by strengthening the technical capabilities of Nafta-Gas. During project appraisal, a full technical and financial agreement had been reached on the size and composition of the project, based on the then available data.

4.2 It was agreed that the overall management of the project would be the responsibility of the Nafta-Gas project manager. His task would be the supervision of different project task groups, each of these being responsible for project components in their department. The project manager's task would also include the coordination between these task groups and the organization and coordination of training as well as the monitoring and reporting of progress to

the Bank. Most of the implementation of the project would be by Nafta-Gas staff, benefiting from training in using special technologies that had not been applied before in Vojvodina. Bank project financing was primarily for the transfer of new technology and for providing Nafta-Gas with the equipment and goods required for the application of this technology in its oil and gas operations.

5. Project Implementation

5.1 Due to the time involved in the ratification of the loan documents by the Yugoslav Federal Assembly, the loan was late in becoming effective, and, right at the start of the implementation, the project incurred a delay of about one year (Part III, Table 1). These delays were augmented by a slow start of the acquisition procedures for equipment for a major component of the project, the drilling and testing of deep exploration wells. Delays for this component accumulated to over two years and then further increased when UN Security Council sanctions against Yugoslavia prevented equipment from reaching the project area and the economic blockade necessitated a change in drilling priorities.

5.2 The other parts of the project were essentially implemented as designed at appraisal. Early during implementation it was agreed to include technical assistance and equipment for underground gas storage in the project (see Para 3.4). The seismic surveys and reprocessing of earlier recorded data were carried out by the Geophysical Institute at Belgrade. A modern seismic instrument was provided under the project and used efficiently by the crews from the institute on regular and three dimensional surveys. Results from the reprocessing of the earlier recorded data were reviewed by regular Bank missions. This reprocessing was found to be carried out in accordance with current practices applied by the international geophysical industry.

5.3 Of the 10 scheduled exploration wells, only seven were drilled, five for the younger Pliocene and Miocene objectives and two for the older Mesozoic objectives. Drilling of these last wells ceased in 1992 when hostilities within the former Socialist Federal Republic of Yugoslavia interrupted the supply of essential drilling consumables. Starting in that year, geophysical and drilling equipment and material already procured from the loan were used to locate and drill wells at more directly prospective locations near the already producing oil and gas fields.

5.4 Due to the sanctions by the UN Security Council on Yugoslavia, some equipment procured under the loan could not be delivered to or be fully commissioned by Nafta-Gas. This concerns mainly well testing and logging equipment the absence of which has prevented the full implementation of the project objectives (see para 6.4 and 6.5). Discussions with the related suppliers are still ongoing.

5.5 The Nafta-Gas staff was found to be fully capable of implementing the project. The tasks of the project manager and his project implementation team, as agreed between the Bank and

Nafta-Gas at appraisal, were well carried out. There were initial delays in procurement because of the complex arrangements for obtaining export credits to Yugoslavia at that time.

5.6 Rapid inflation in the country during project implementation complicated accounting of local costs. The Dinar decreased in value against the US\$ by a factor of about 10,000 from 1985 to 1992. Therefore local costs for the project are only presented in US\$ (Part III, Table 4). The project cost and financing data (Part III, Table 5) show that export credits that could be used for the project came close to the expected amounts. The data on loan utilization (Part III, Table 3) show that no disbursements were made for Category 1 (field and exploration services). As was agreed with the Bank, these funds were used for disbursements under Category 2 (materials and equipment).

5.7 Following the UN sanctions against Yugoslavia, the Borrower's special project account with Jugobanka (New York) was blocked, delaying final payments for essential material for the testing and workover of wells. The special project account was still blocked at the time of preparation of this Note.

6. Project Results

6.1 The newly recorded seismic survey lines provided strongly improved data quality. The reprocessing of older data also revealed much clearer geological information than was available on the previous versions. This combined data package formed a solid base for the structural and stratigraphic interpretation in search of locations for the exploration wells to be drilled under the project.

6.2 Of the seven exploration wells drilled, two were found to be potential oil and gas producers. However the sanctions against Yugoslavia has prevented Nafta-Gas from obtaining the special production equipment required to put these wells into production. Of the other five wells, drilling of three had to be interrupted before attaining the targeted depth, also because of lack of equipment. As several of project's drilling objectives have not been reached, it is too early to make an evaluation of this subcomponent. It is the intention of Nafta-Gas to complete the drilling of these exploration wells once sufficient equipment and material become available.

6.3 The workover and testing of wells drilled by Nafta-Gas before the beginning of the project was a partial success. Thirteen wells were treated with special production enhancing chemicals supplied from the project. Consecutive testing of these wells found five to be potential producers. In the other wells, the composition of the oil and gas bearing formations was found to be too tight to allow extraction of fluids at an economic level.

6.4 The efficiency of testing wells was reduced since the well logging equipment purchased from a foreign supplier, after its delivery in December 1989, was found to malfunction. In agreement with the warranty provisions, this equipment was sent back for repairs to the UK in March 1992. However, it had not been returned at the time this Note was prepared. Nafta-Gas

may decide to enter into arbitration against the supplier. The amount under the contract which is still not paid by Nafta-Gas is US\$ 423,757.00. Claims regarding equipment delivered by another foreign supplier and extension of the warranty periods have recently been discussed with this company and the outstanding issues are believed to have been settled satisfactorily.

6.5 Another pending issue concerns the delivery of two lots of oil field equipment by another foreign supplier, of which the first lot (value US\$ 273,912,00) was received while the second lot (value US\$ 447,603.90) was confiscated in Croatia as it was being shipped via the port of Rijeka. Unfortunately the received equipment cannot be used without this second shipment. The funds for this yet unpaid contract are in the blocked special account at Jugobanka in New York (see para 5.7).

6.6 A study by TCA HOUSTON on the possibilities of Enhanced Oil Recovery by steam flooding the oil bearing formations showed that this technology, under the prevailing conditions in the Nafta-Gas area, cannot be expected to be economically productive. This project component was then discontinued. A study on Underground Gas Storage was conducted by Sofregas (France) and Pritchard (USA), and, as a result, the B.Dvor field will be converted to an underground storage facility.

6.7 Training was mostly in technologies used in exploration and production and connected with major project components such as well testing, porosity analysis, fractured reservoir performance, well stimulation and mathematical reservoir modeling. The training component supported Nafta-Gas in efficient implementation of the project, and the acquired knowledge and skills continue to be used with very good results in the company. Training was both by courses given by foreign experts to Nafta-Gas staff in Yugoslavia and by sending staff to training centers abroad. A good example of the application of new knowledge was the survey of three producing oil fields with 3D seismic technology using specialized equipment procured under the loan. On all three fields, significant extensions of the productive areas were found. By using the same technology a new gas field (ZitiOte) was discovered in 1988, which, on the basis of the high quality of the recorded 3D seismic data, could be economic. Out of the seven wells drilled on this field, six are producing.

7. Project Sustainability

7.1 As is normal in oil and gas production, the discovered fields, if well managed, will produce some 35% of the oil and some 70% of the gas originally present in the underground reservoirs. These percentages, which depend on several factors such as the porosity and permeability of the underground reservoirs and the viscosity of the oil, will thus determine the sustainability of the production established by the project. From the wells drilled by Nafta-Gas with assistance of project financed equipment after 1992, a total of 366.000 cubic meter of oil and 17 million cubic meter of gas had been produced up to April 30, 1996, with an estimated commercial value of some US\$ 38 million. As the normal economic life of a producing well can be taken to be some 10-15 years, the ultimate yield from these wells can be taken to be considerably higher.

7.2 Future benefits from the project cannot be fully assessed because, as mentioned above, some of the required equipment is not yet operational and, because of the former hostilities some of the exploration drilling objectives were not reached. However results from completed wells have shown that deep exploration faces geological and physical obstacles so that a very prudent approach will be required in order to avoid wasting of resources. Discussions by the missions showed that application of modern economic tools in exploration and oil field development drilling resulted in lower consumption of drilling material and consumables by Nafta-Gas.

7.3 The shortage of foreign currency and the embargo have caused difficulties in obtaining sufficient spare parts and servicing for the equipment purchased under the project. This interferes with project sustainability in the short term.

8. Bank Performance

8.1 Bank identification of the project was in August 1983, followed by appraisal from March 1984 to mid 1985. Due to several delays, the Loan and Guarantee Agreements did not become effective until September 1986 (Part III, Table 1). The Bank's appraisal missions were composed of well balanced staff in the economic, financial and technical disciplines. However, since this project was the first in the energy sector of former Yugoslavia, and since discussions had to be held with the implementing oil exploration and production company as well as with the ministries of the central government, the preparation of the project took longer than planned. A very good understanding was reached early between the Borrower and the Bank missions. The main constraint on Nafta-Gas' operations, namely lack of proper material and, to a lesser extent, lack of experience with modern technologies, was readily identified and the main project priorities determined. In hindsight, the Bank could have been more cautious in its advice on the deep exploration program, allowing more time at the start for exploration studies and longer periods of analysis between the wells.

8.2 Bank supervision was at about six monthly intervals in the early part of project implementation, but diminished to intervals of over one year during the period 1987-1990 (Part III, Table 2). There were also frequent changes of Bank staff on the supervision missions during these years. In order to maintain a good dialogue with an implementing agency facing the use of new technology, regular supervision at six monthly interval, preferably by the same staff, would have been more appropriate. During the period 1990-1992, supervision was interrupted due to the hostilities in the country.

9. Borrower Performance

9.1 Although the project required application of many technologies unavailable at the start of the project, Nafta-Gas proved fully capable of handling the implementation of the project. Consultants were supplied with adequate information and operational assistance to be able to do their work in an optimal way. Nafta-Gas project management and technical staff were at all times of high quality and capacity.

9.2 Nafta-Gas complied with the reporting covenants in the Loan Agreement by submitting regular quarterly progress reports on the implementation of the project. Audited financial statements, forecasts and project accounts have been received and, according to information predating 1990, the requested financial ratios were being met. The covenant in the Guarantee Agreement requesting the Government of Yugoslavia to increase the domestic gas price to the level of imported gas had, notwithstanding some price increases, not been met. At the time of writing of this Note insufficient information was available to determine whether all covenants in the legal documents have been complied with by the Government of Yugoslavia and Nafta-Gas during the remaining timespan of the project.

10. Project Relationship

10.1 The relationship between the Bank and Nafta-Gas on this project has been good. This was also sustained by the high level of professionalism and efficiency of the implementing staff. There has always been a climate of good discussions between the Bank and the Borrower and decisions on the implementation of the project have been in full mutual agreement. Relations with cofinancing and export credit agencies were difficult at the start of the project because of their unfamiliarity with conditions in the country.

11. Consulting Services

11.1 The transfer of advanced technology for the use of the modern equipment and goods purchased from foreign suppliers, constituted a major element of the project. Suppliers provided opportunities for on-the-job training of Nafta-Gas staff. Consultants performed well and reached the objectives specified in their terms of reference on time.

12. Project Documentation and Data

12.1 The Loan and Guarantee Agreements for this loan were adequate as a legal basis for the cooperation between the Government, Nafta-Gas and the Bank. The appraisal report gave a clear description of the agreed objectives and composition of the project and provided valuable guidance during implementation.

13. Evaluation of Project Outcome

13.1 It was not possible to rate the project outcome since some activities have not yet been completed because of the sanctions imposed on Yugoslavia by the UN Security Council.

PART II: PROJECT REVIEW FROM BORROWER'S PERSPECTIVE

The First Petroleum Sector Project was financed by the World Bank and cofinancers in equal shares of 35,0 mill US\$, and from local sources in US equivalents of 81,25 mill US\$, making a total of 1511,25 mill US\$.

1. Initial Objectives

1.1 Identification of different types of subtle traps and determination of potential oil and gas reserves.

1.2 Improvement of oil and gas production from tight reservoir rocks within the Neogene complex and its immediate basement.

1.3 Regional exploration of the Mesozoic complex, or of the oil and gas potential in deep Mesozoic horizons.

2. Other Objectives

2.1 Procurement of Equipment and Materials: The basic objective was to buy new equipment, amend and revitalize the existing NaftaGas equipment in the field of geophysics (including computer center), drilling, geological monitoring of drilling, logging measurements and workover interpretation, special services, laboratory and well tests. Considerable funds have been planned for the procurement of well equipment, tubular goods, drilling and mud material as well as different assortment of additives which an oil industry, used for production stimulation

2.2 Advanced Training and Training: Advanced training was included the experts of renowned foreign companies in the field of geophysics, geology, designing and technology of deep well drilling, electric logging processing and interpretation, well test data interpretation and application of stimulative methods on formations. Significant advanced trainings have also been planned in the field of well tests and laboratory research works. The conception of advanced courses in the Country for larger number of attendants and after that courses for the most successful ones abroad, should contribute to more systematic and continual transfer of knowledge.

2.2.1 Since different experts were included, the project, beside engineers, also anticipated courses for lawyers and economists.

2.3 Consultant Services: Consultant services included the engagement of foreign experts to solve the problems in the field of drilling, drilling mud, cased in completion, cementation,

electric logging diagram interpretation, stimulation works, estimation of the Mesozoic potentials.

2.4 Studies: Foreign companies were engaged in the elaboration of studies on oil and geology potentials of the Mesozoic sediments for oil and gas exploration and production.

3. Physical Volume of works

3.1 Geophysical Works

3.1.1 The Neogene and a Part of Basement: The survey of about 700 kms of CDP profile was performed including processing and interpretation for the purpose of defining traps at the contact of the Neogene sediments and basement.

3.1.2 It was also necessary to perform reprocessing and reinterpretation of the existing seismic profiles in the range of 2000 kms.

3.2 The Mesozoic Complex: Seismic field works were anticipated on 1400 kms of the profile with the possibility to extend this quantum for additional 400 kms. Gravimetric and geomagnetic surveys were also anticipated along this seismic profile for the purpose of complex geophysical data interpretation.

3.3 Exploration Drilling (for Neogene and a Part of Basement): Six exploration wells were to be drilled to the designed depth of 3000 - 3600 m. Four of six wells were to be purely exploration, while the remaining two were to be drilled in already explored structures with tight reservoir rocks in which hydrocarbons had been discovered.

3.4 Exploration Drilling (Mesozoic): Four wells were drilled to the designed depth of 4000 - 5000 m. in the Mesozoic localities in Central Banat, South Bačka and South Banat.

3.5 Well Testing Program: According to this Program, 21 wells were designated, 6 of which new ones and 15 previously drilled or partially tested.

4. Project Results

4.1 Geophysics

4.1.1 Neogene and a Part of Basement: According to the designed scope of works, until 1993, 1030 kms of seismic profiles were performed or 147% comparing the plan. Regional surveys were performed for 813 kms and detailed for 217 kms. Existing seismic profiles were reprocessed on 4044 kms. representing in such a manner double the scope of the previous plan, 202%.

4.1.2 Mesozoic: According to the plan, 2000 kms. of the seismic profile or 111% of the plan, were performed until 1993. Along 2000 kms. of the profile, gravimetric measurements were carried out in the scope of 16.421 points. All regional seismic measurements were completed in accordance with the program. Detailed seismic measurements in Central Banat were completed in the range of 132 kms, and in South Bačka in the range of 70.48 kms. On the basis of these detailed seismic works we could locate drilling of exploration wells KRMZ-1 and BPMZ-1 in the fields of Central Banat and SouthBačka .

4.2 Results of Exploration Drilling Under WB Program

4.2.1 Exploration Drilling of Neogene and a Part of Basement: Note that not the full scope of the Pliocene Program has been implemented. Field acquisition of seismic data and their interpretation supplied sufficient groundwork for setting the locations for a number of wells. However, their drilling is behind schedule. Two wells, MKz-1 (Micron Zapped) and MKV-1 (MokrinVrbica) were spudded: the drilling of the former was discontinued, the latter was abandoned as dry before reaching design depth. It is too early for a meaningful evaluation of this Program mostly because of the small number of wells which were expected to confirm the regional models yield some results and thereby allow definition of the traps, their fluid contents and, ultimately, the evaluation of reserves.

4.2.2 Tight Reservoirs Testing: MAJ-X-1, NCS-1 and MN-2 wells were drilled under this program. The first two wells are producers, the last mentioned a dry hole.

4.2.3 The Mesozoic Exploration Drilling: The preparations for the implementation of this Program were thorough and on schedule. Seismic data acquisition and data interpretation are over. The geologic model has been recognized and wells KRMZ-1 (Krajišnik mezozoik) and BPMZ-1 (Bački Petrovac mezozoik) located.

4.2.4 The wells were to confirm the regional development of the Mesozoic deposits, and their generating and accumulating potentials. KMRZ-1 was not drilled to the design depth of 5800 m. Its TD at 4647 m. contains Mesozoic deposits from 2023 m. The well tested no hydrocarbons.

4.2.5 Although two wells for testing hydrocarbons in the Mesozois formations, were not drilled to the designed depth (discontinued due to sanctions), they yielded precious information on the thickness and depth of the Mesozoic occurrences, geochemical characteristics and reservoir rock potentials.

4.2.6 Although commercial quantities of oil and gas have not been achieved, all the information represent good starting point for the Mesozoic exploration continuation.

4.3 Workover and Test Results Using the Equipment Procured from WB Loan

A. First Petroleum Project Wells

MAJ-X-1 (3725 m) - Bringing-in results: oil, condensate, gas containing CO₂ and H₂S. Waiting for provision of corrosion-proof equipment to start trial production.

NC₂-1 (3600 m.) - Producer, however, not in operation.

B. Old Wells included into testing Program with equipment purchased from WB Loan (See Table 2)

A number of old wells like KIS-1, KIS-2, KIS-3, Cbj-2, Mn-1, Vst-3, Vst-5 and Vst-6, producing from tight reservoirs has been tested under this program. The tests have demonstrated that, notwithstanding the promising results in the exploration phase, these poor porosity and permeability or tight reservoirs produce with marginal commercial effects. RUS-5, RUS-6, RUS-12 and RUS-13 on the Rusanda field exhibit good test results and production.

4.4 Well Drilled with Equipment and Materials Procured from WB Loan after Discontinuation of WB Deep Well Drilling Program.

A. As stated in the Progress Report of April 18, 1992, filed with the World Bank, Nafta-Gas had to desist temporarily from exploration of deep Mesozoic structures and turn instead to production maintenance, extension and development drilling at more prospective localities because of highly unfavorable situation caused by the hostilities in the federal entities of former Yugoslavia, unavailability of supplies from these republics (pipings, cement, barite, bentonite, fittings, rubber and other consumables) and the general economic blockade.

The geophysical equipment and software procured from the World Bank Loan applied to Rusanda, Kikinda Varoš and Turija Sever oil fields and to the Žitište gas discovery. The same applies to the workover equipment.

The three oil fields of different exploration maturity were resurveyed with the 3D equipment to expand the data inventory for reliable geological modeling and optimization of extension and development wells drilling and location. 3D seismic data acquisition and interpretation gave good results on the Turija Sever oil field and allowed many wells to be successfully brought on stream. The 3D data from Rusanda oil field indicated the right sites for new wells.

The enclosed Table 3 lists the wells drilled on these three fields and their respective recoveries.

On the above localities, until December 31, 1996, 68 wells were drilled by application of equipment and materials purchased under the World Bank Loan. Oil production rate for that time period reached 506,000 t and gas 101×10^6 St m³ in the total amount of cca 76 million US\$. Having in mind the fact that an average well life time is 10 - 15 years, its quite realistic to expect considerably higher recovery factor of the above mentioned.

- B. A good example of the benefits from the WB training program is the discovery preparation and start-up of the "Žitište" gas field. The well designed geological model, the application geophysical DHI and geological exploration methods (appraisal wells) allowed the development of this field with the optimum number of wells. The discovery was made in 1988; in less than a year the field was put in production. The average depth of the wells is about 1200 m. Of the seven wells drilled, six are producers.

4.5 Equipment and Material Procurement

4.5.1 For the procurement of equipment, spares and materials necessary for Project implementation, Nafta-Gas used 32.38 mill US\$ from the YU-2596 Loan. The disbursement of 2.36 mill US\$ was canceled upon Loan expiry. The bulk of the initial procurement specification was, however, implemented. Having expanded the existing working capacities with new acquisitions, Nafta-Gas achieved full capability to successfully perform the Project tasks. It should be noted that the new equipment consisted of items which were the top technological developments in the petroleum industry at the time.

4.6 In-House Courses and Training Abroad

4.6.1 A comparatively small share of the total Loan amount was allotted to advancing the professional knowledge and skill of Nafta-Gas's staff. Time has proved that the investment was most profit-conscious not only because of the immediate benefits derived for the purpose of Project implementation but, in the long term, because of the general upgrading of the performance of routine oil and gas exploration and production jobs.

4.6.2 In general, the training was designed to advance the technology applied to petroleum exploration and production, and addressed all major Project components like geophysical modeling and interpretation, deep well design and drilling, application of stimulation methods, well testing and measurements, and laboratory tests. The courses were in-house and attended by an audience of different professions. Specializations in renowned international training centers were available to a more restricted group of Nafta-Gas's professionals.

4.6.3 High importance should be attached to the training of technical staff at various manufacturers'. The equipment suppliers were committed to organize such training for all equipment items procured under the YU-2596 Loan both in their own and the user's interest.

The large number of people who attended this type of training significantly elevated the overall on-the-job knowledge and skill of Nafta-Gas's personnel.

4.7 Foreign Service Companies

4.7.1 In the course of Project implementation, Nafta-Gas did not use the services of foreign companies as originally planned. The engagement of foreign service companies for stimulation jobs when testing the old wells was taken into serious consideration but never effected because, as a rule, the candidate wells had a poor production history database which resulted in rather pessimistic evaluations of the profitability.

5. Basic Obligations of Nafta-Gas under the Loan Agreement

1. Presentation of annual operation plans associated with Project implementation for approval by the World Bank.
2. Reporting to the World Bank on tenders drawn up for equipment procurement and advertising invitations to tender.
3. Delivery of bids to the World Bank and proposal of winners.
4. Delivery of commercial contracts signed by the bidders and of applications for relevant payments by the World Bank.
5. Accounting for expenses from the special account with Jugobanka, New York. This account was fed from the Loan fund to the amount of 1.6 mill US\$.
6. reporting on Project implementation status (quarterly commitment).
7. Reporting on audit (Current Cost Financial Statement) made annually by Service for Payment Operation and Financial Control for Nafta-Gas strictly to the form established by the World Bank.

5.1 The performance of these procedures did not always go smoothly in either direction. This particularly applies to Nafta-Gas. Due to procedural issues related to decision making, Nafta-Gas could not always fully satisfy the time schedule. However, these delays did never seriously affect the relations between the Bank and Nafta-Gas.

6. Pending Issues

6.1 The implementation of the Project was occasionally associated with issues pending settlement, be it with regards to equipment delivery or guarantees for the equipment. The economic blockade stopped communications and aggravated the finalization of otherwise readily solvable problems.

Today, we have to deal with the following outstanding issues:

- 1 OTIS, U.S.A. - Some of the equipment, valued at 273,912 US\$ is in SR Yugoslavia. The rest of the contracted equipment, valued at 447,603.90 US\$

lies confiscated in the Republic of Croatia. The money for this yet unsettled contract is on the blocked special account with Jugobanka, New York.

2. ROBERTSON RESEARCH - Logging tools proved defective at commissioning. Contract value: 423,757 US\$. This contract has been paid by Nafta-Gas but the logging tools are at the manufacturer's in the United Kingdom. Negotiations toward amicable settlement are under way. If successful, remedy will be sought through arbitration.
3. TCA RESERVOIR ENGINEERING SERVICES, HOUSTON, TEXAS, U.S.A. Nafta-Gas owes 29,900 US\$ for the first part of the steam injection feasibility study prepared with a view to attempt enhanced oil recovery from the Jermenovci field.
4. The special account with Jugobanka, New York is blocked because of the economic sanctions imposed on SR Yugoslavia and Nafta-Gas has no true information on the state of account.

7. LOAN SERVICING

7.1 Servicing of the Loan principal, interest and commissions is shown in Tables 4 and 5.

7.2 The World Bank has returned overpayments of principal, interest and commission. When money transfers were stopped by the sanctions, NIS-NAFTA-GAS became unable to regularly service outstanding payments.

7.3 As soon as the sanctions were lifted, the Government of SR Yugoslavia started talks with the international creditors about reassuming regular payments. When this problem is overridden at higher level, NIS-NAFTA-GAS will immediately place its efforts to meet the commitments to the World Bank.

8. IMMEDIATE PROJECT BENEFITS

8.1 Using the financial resources available under the Loan YU-2596 to implement the First Petroleum Sector Project, Nafta-Gas succeeded in the main to accomplish the initially set goals of petroleum exploration in Vojvodina.

8.2 Although some objectives have not been reached because the operations had to be discontinued, the completion of the wells listed in Table 3 resulted insignificant oil and gas recovery. The technical staff upgraded. New technologies have been transferred to a fertile ground and the long-term benefits from the Project are clearly high. Unfortunately, due to the economic sanctions, some expectations either felt short or never came to be.

9. RELATIONS WITH THE WORLD BANK

9.1 In the course of Project implementations, the relations with the Bank representatives in charge of the Project were always good and open. In all contacts optimum solutions were sought for in an atmosphere of mutual respect and trust. The Nafta-Gas participants in the Project implementation gratefully remember the useful suggestions, instructions and help given with best intentions whenever there were problems which inevitably crop up in the various phases of such an undertaking as the First Petroleum Sector Project.

RESULTS OF EXPLORATION DRILLING UNDER WB PETROLEUM PROJECT

Table 1

WELL	EXPLORATION TARGET	DESIGN DEPTH (m)	ACTUAL DEPTH (m)	WELL STATUS
Maj-X-1	Miocen (breccia)	3650	3725	Productive: shut off until corrosion-proof equipment supply.
NCs-1	Miocen (fractured siltstone)	3600	3517	Productive.
MN-2	Miocen (micritic limestone)	3500	3500	Dry.
KRMZ	Mesozoic	5800	4647	Operations discontinued due to sanctions.
BPMZ-1	Mesozoic	4500	3592	Operations discontinued due to sanctions
MKz-1	Pliocen (sandstones)	3800	2334	Drilling discontinued.
MKV-1	Pliocene	2500	2350	Dry.

Table 2

Wells	Depth (m)	Start Up	Recovery		Notes
			Nafta (m ³)	Gas (Stm ³)	
Kis-1	2904	1.07.1992	856,0		Shut off 11.12.1993
Kis-2	2702		1988,0		Test run Non commercial oil
Kis-3	2644	1.07.1992	2440,0		Shut off 15.09.1993
VST-6	3103	16.05.1990	998,0		3.12.1996 on stream
MN-1	3074				Dry
VST-3	3109				Non commercial oil
CBI-2	3219				Producer. But not put into operation
Rus-5	2675	1.01.1991	90.513,0	23.208.843	31.12.1996. on stream
Rus-G	1581	1.01.1991	29.998,0	43.898.366	31.12.1996. on stream
VST-5	3179				Non commercial oil
Rus-7	2760				Dry
Rus-9	2484				Dry
Rus-12	2523	7.01.1995			Production: see Table 3 on stream
TOTAL			126.793,0	67.107.209	

WELLS DRILLED AFTER 1992. OIL AND GAS RECOVERY

Table 3.

Field	D/C Year	Wells	Pools	TD (m)	Start-up Date	Recov. to Dec.31, 1996	
						Qo (m ³)	Qg (m ³)
Rusanda	1995	Rus-10	ll	2900	9.1995	4.992,4	7.059.000
		Rus-12	ll	2963	7.1995	7.164,3	5.111.100
		Rus-13	ll	2700		Formation testing in progress	
TOTAL						12.156,7	12.170.100
KIKINDA VAROS	1992	Kv-66	M+TG	2014	7.1992	1.097,7	43.400
		Kv-68	M+TG	2033	11.1992	5.723,9	681.400
		Kv-69	M+TG	2082	11.1992	20.457,3	1.841.700
		Kg-41	M+TG	2113	2.1993	2.032,7	680.200
	1993	Kv-60	M+TG	2357	12.1994	7.017,6	385.900
		Kv-61	M+TG	2188	12.1994	6.251,2	847.400
	1994	Kv-51	M+TG	2159	12.1994	8.526,5	563.500
		Kv-62	M+TG	2234	12.1994	8.812,3	451.600
		Kv-63	M+TG	2076	9.1995	5.155,9	20.500
		Kv-64	M+TG	2196	-	-	-
	Kv-67	M+TG	2074	9.1995	4.995,4	25.400	
	Kv-70	M+TG	2385	12.1994	3.437,3	272.300	
TOTAL						73.507,8	5.813.300
TURUJA SEVER	1992	Tus-11	l	2264	3.1994	1.773,8	102.141
		Tus-13	l	2260	6.1992	25.851,2	894.000
		Tus-13	l	2264	4.1994	951,9	92.842
		Tus-14	l	2260	8.1992	30.233,2	1.235.900
		Tus-15/L	lb	2450	-	-	-
		Tus-15/1	lb	2406	7.1993	11.142,6	503.000
		Tus-16	l	2260	9.1992	34.704,4	1.318.500
		Tus-17	l	2263	10.1992	2.998,8	184.616
		Tus-18	l	2270	8.1992	17.887,3	698.700
		Tus-19	l	2628	3.1993	19.274,5	812.200
		Tus-20	l	2260	7.1992	13.911,1	603.200
Tus-21	l	2260	1.1993	10.875,3	426.500		

Table 3 continued

Field	D/C Year	Wells	Pools	TD (m)	Start-up Date	Recov. to Dec.31, 1996	
						Qo (m ³)	Qg (m ³)
TURJA SEVER	1992	Tus-22	l	2254	12.1992	4.913,8	269.200
		Tus-24	l	2250	9.1993	19209,1	773.600
		Tus-25	l	2255	11.1992	10.960,2	448.200
		Tus-27	l	2260	5.1993	8.630,3	360.000
	1993	Tus-23	l	2260	8.1993	17.246,2	633.533
		Tus-26	l	2252	5.1993	21.165,2	907.900
		Tus-28	l	2260	8.1993	7.880,7	368.600
		Tus-29	l	2260	4.1993	8.114,4	376.700
		Tus-30	l	2260	10.1993	8.833,2	408.200
		Tus-31	l	2260	5.1993	12.403,4	474.500
		Tus-32	l	2260	3.1994	12.746,9	525.600
		Tus-34	l	2255	12.1994	3.333,9	131.700
		Tus-35	l	2260	12.1994	6.530,3	260.200
		Tus-36	l	2107	-	-	-
		Tus-37	l	2260	12.1994	1.511,9	61.100
		Tus-38/L	l	2151	-	-	-
		Tus-40	l	2250	1.1996	3.475,8	134.600
		Tu-3	lb	2248	10.1994	2.513,0	113.400
		1994	Tus-38/l	l	2354	8.1994	11.414,8
	Tus-39		l	2385	9.1994	13.851,0	610.100
	Tus-43/L		l	2152	-	-	-
	Tus-44		l	2260	3.1995	2.476,5	105.500
	Tus-50		l	2260	1.1994	7.402,8	320.300
	Tus-51		l	2260	4.1995	1.598,2	75.600
	Tus-52		l	2263	5.1995	798,4	34.500
	Tu-4		lb	2108	-	-	-
	1995	Tu-6	lb	2400	11.1994	13.332,6	589.300
		Tus-41	l	2451	3.1995	2.811,6	101.900
		Tus-42	l	2354	Start-up May 1996	849,8	36.000
		Tus-46	l	2256	Start-up May 1996	2.038,1	79.600
		Tus-49/L	l	2447,5	-	-	-
		Tus-49/1	l	2304,5	Start-up May 1996	3.334,6	152.900
		Tus-53L	l	2327	-	-	-
		Tus-53/1	l	2500	Test under way.	-	-
		Tus-56	l	2260	-	Water	-
		Tu-7/L	lb	2100	-	-	-
	1996	Tu-7/1	lb	2363	Test under way	-	-
		Tus-33	l	2260	Start-uo May 1996	2.061,2	82.100
		Tus-45	l	2265	-	106,8	4.200
		Tus-48	l	2260	-	672,1	27.900
			Tus-60	l	Drilling	-	-
	TOTAL						38.820,9
GRAND TOTAL						467.485,4	33.816.199

NOTES

Wells marked L are abandoned.

Wells marked /1 are slant.

NIS-NAFTA-GAS NOVI SAD
 -FINANSIJSKI SEKTOR-
 BROJ: _____
 DANA: 15.01.1997.G.
 NOVI SAD

DISBURSEMENT OF WB LOAN PRINCIPAL

Table 4.

Date	Currency	Principal	Equivalent in US D
01.11.1988	USD	1.390.049,31	1.390.049,13
01.02.1989	USD	82.673,16	82.673,16
01.05.1989	KWD	414.871,82	1.440.777,29
01.11.1989	NLG	2.993.211,17	1.370.517,93
01.05.1990	NLG	2.767.780,36	1.454.047,99
06.11.1990	CHF	1.963.440,80	1.532.740,67
15.05.1991	USD	1.552.373,96	1.552.373,96
01.08.1991	USD	(-) 95.188,80	(-) 95.188,80
02.12.1991	USD	1.458.199,24	1,458.199,2 4
TOTAL:			10.186.190,75

DISBURSEMENT OF WB INTEREST

Table 5.

Date	Currency	Interest	Equivalent in US D
01.11.1988	USD	180.751,92	180.751,92
01.02.1989	USD	22.952,45	22.952,45
01.05.1989	KWD	82.465,23	286.386,61
01.11.1989	NLG	658.378,50	301.455,36
01.05.1990	NLG	913.113,097	479.702,16
07.11.1990	CHF	805.9838,70	629.070,02
15.05.1991	USD	719.270,98	719.270,98
01.08.1991	USD	(-) 42.915,58*	(-) 42.915,58
02.12.1991	USD	830.142,37	830.142,37
TOTAL:			3.406.816,29

COMMISSIONS ON WB LOAN

Table 6.

Date	Currency	Commission	Equivalent in US D
19.03.1987	USD	189.143,84	189.143,84
29.04.1987	USD	130.171,23	130.171,23
23.12.1987	CHF	197.663,01	132.328,77
12.05.1988	USD	190.322,20	190.322,20
29.08.1988	USD	8.706,59	8.706,59
01.11.1988	USD	113.335,78	113.335,78
01.05.1989	KWD	27.656,91	96.047,64
01.11.1989	NLG	195.910,92	89.702,80
01.05.1990	NLG	42.606,42	22.383,20
06.11.1990	CHF	22.358,71	17.454,10
14.05.1991	USD	12.325,95	12.325,95
TOTAL:			100.192,21

* Bank returned over payments.

Table 1

PART III**FEDERAL REPUBLIC OF YUGOSLAVIA
Loan 2596-YU****A. Project Timetable****Planned and Actual Dates of Project Timetable**

<u>Item</u>	<u>Planned Date</u>	<u>Actual Date</u>
Identification		7/83
Pre-Appraisal		3/84
Decision Memorandum		8/84
Post-Appraisal		10/84
Negotiations		4/85
Board Approval		6/85
Loan Signature		12/85
Loan Effectiveness	4/86	9/86
Loan Completion	3/90	3/92
Loan Closing	9/90	9/92

Table 2

PART IIIFEDERAL REPUBLIC OF YUGOSLAVIA
Loan 2596-YUB: Use of Bank ResourcesMissions

<u>Item</u>	<u>Date</u>	<u>Number of staff</u>	<u>Days in Field</u>
Identification	6/83	3	18
Pre-Appraisal	3/84	5	6
Post-Appraisal	10/84	6	11
Supervision	9/85	2	5
Supervision	4/86	2	5
Supervision	2/87	5	6
Supervision	6/87	4	2
Supervision	12/87	4	3
Supervision	2/89	3	3
Supervision	3/90	3	3
Supervision	6/92	1	4

Table 3

PART III
FEDERAL REPUBLIC OF YUGOSLAVIA
Loan 2596-YU

C: Project costs and financing
Table: Utilization by categories (US\$ million)

Category	Original Allocation	Actual Disbursement
-----	-----	-----
1. Field and exploration services	5.5	0.0
2. Field and exploration materials and equipment	24.1	29.3
3. Consultant services and training	2.0	1.7
4. Unallocated	3.4	
5. Special Account *		1.3
6. Not used/Cancelled		2.6
	-----	-----
Total	35.0	35.0

* This amount is blocked in the Borrower's special account with Jugobanka (New York). Invoices from two suppliers are still awaiting payment after deblockage of this account and completion of equipment deliveries:

- 1) OTIS USA (oil field equipment) for an amount of US\$ 721,515.90
- 2) TCA Houston for the first part of the steam injection feasibility study, outstanding amount US\$29,900.00

Table 4

PART IIIFEDERAL REPUBLIC OF YUGOSLAVIA
Loan 2596-YUC: Project costs and financing

Table: Detailed Project Cost (US\$ million)

	<u>Appraisal Estimate</u>			<u>Actual Utilization</u>		
	Local	F.E.	Total	Local	F.E.	Total
Geophysical surveys	10.4	0.1	10.5	16.3		16.3
Exploration drilling	32.6	60.4	93.0	20.5	62.5	83.0
Well workover and testing	5.3	3.0	8.3	13.7		13.7
Consultancy and techn.assistance	0.0	0.9	0.9			
Training	0.4	0.9	1.3		1.6	1.6
Duties and taxes	15.2	0.0	15.2		0.0	
Equipment for UGS					0.7	0.7
-----	-----	-----	-----	-----	-----	-----
Project base costs	63.9	65.3	129.2	50.5	64.8	115.3
Contingencies: Physical	6.4	6.5	12.9			
Price	13.4	11.6	25.0			
-----	-----	-----	-----	-----	-----	-----
Total project costs	83.7	83.4	167.1	50.5	64.8	115.3

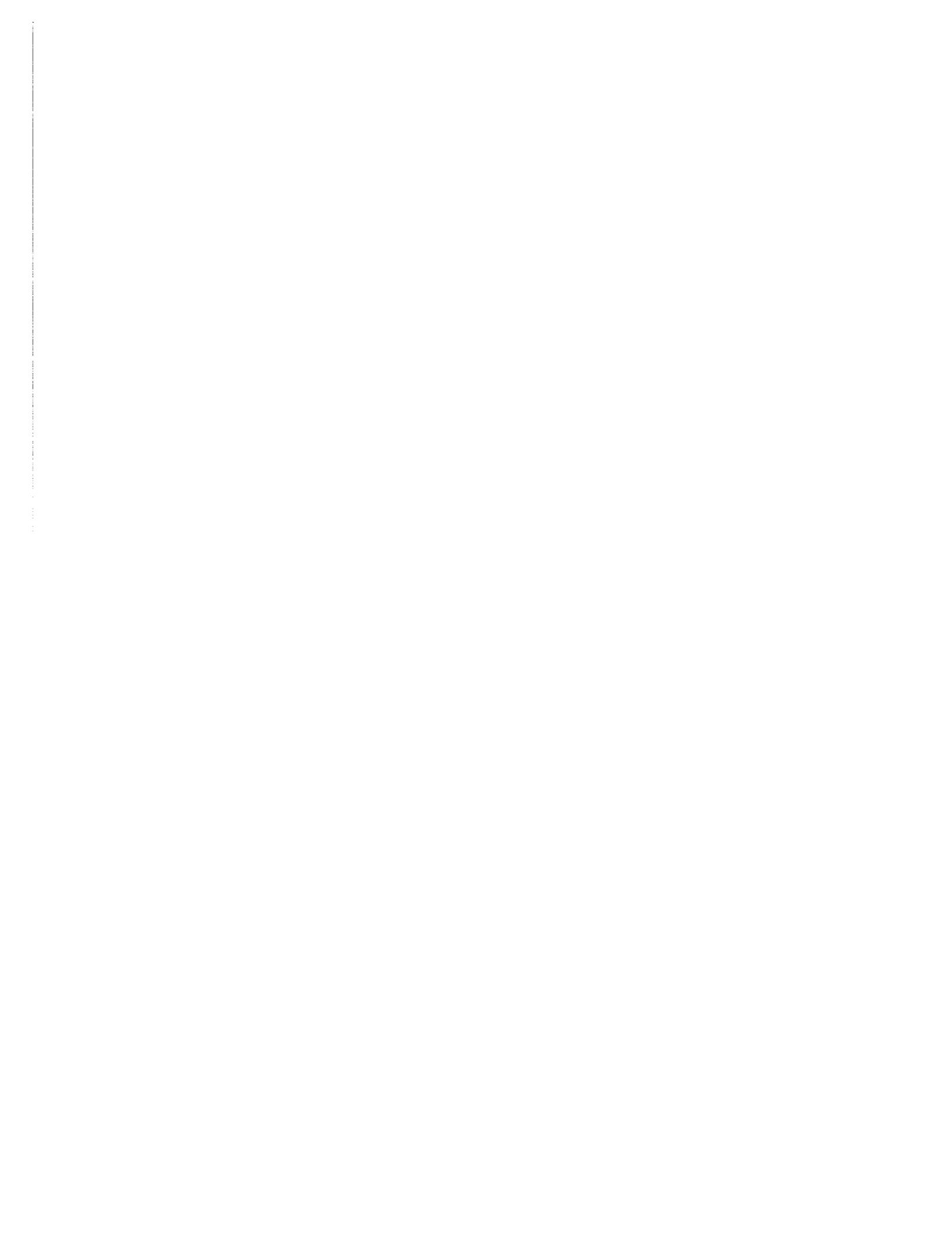
Note: In 1989 Nafta-Gas and the Bank agreed on a downward revision of the project costs to a total of US\$ 149.9 million.

Table 5

PART IIIFEDERAL REPUBLIC OF YUGOSLAVIA
Loan 2596-YUC: Project costs and financing
Table: Project Financing (US\$ million)

	Planned Financing at Appraisal				Actual Financing			
	Local	F.E.	Total	%	Local	F.E.	Total	%
Own resources	83.7	13.4	97.1	58.1	50.5		50.5	43.8
Export Credits	0.0	35.0	35.0	21.0		32.4	32.4	28.1
IBRD Loan	0.0	35.0	35.0	21.0		32.4	32.4	28.1
Total	83.7	83.4	167.1	100.00	50.5	64.8	115.3	100.0

Note: In 1989 Nafta-Gas and the Bank agreed on a downward revision of the project costs to a total of US\$ 149.9 million.



IMAGING

Report No.: 16329
Type: PCN