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Report to Congressional Requesters

March 1994

INTERNATIONAL TRADE

Kazakhstan Unlikely to Be Major Source of Oil for the United States

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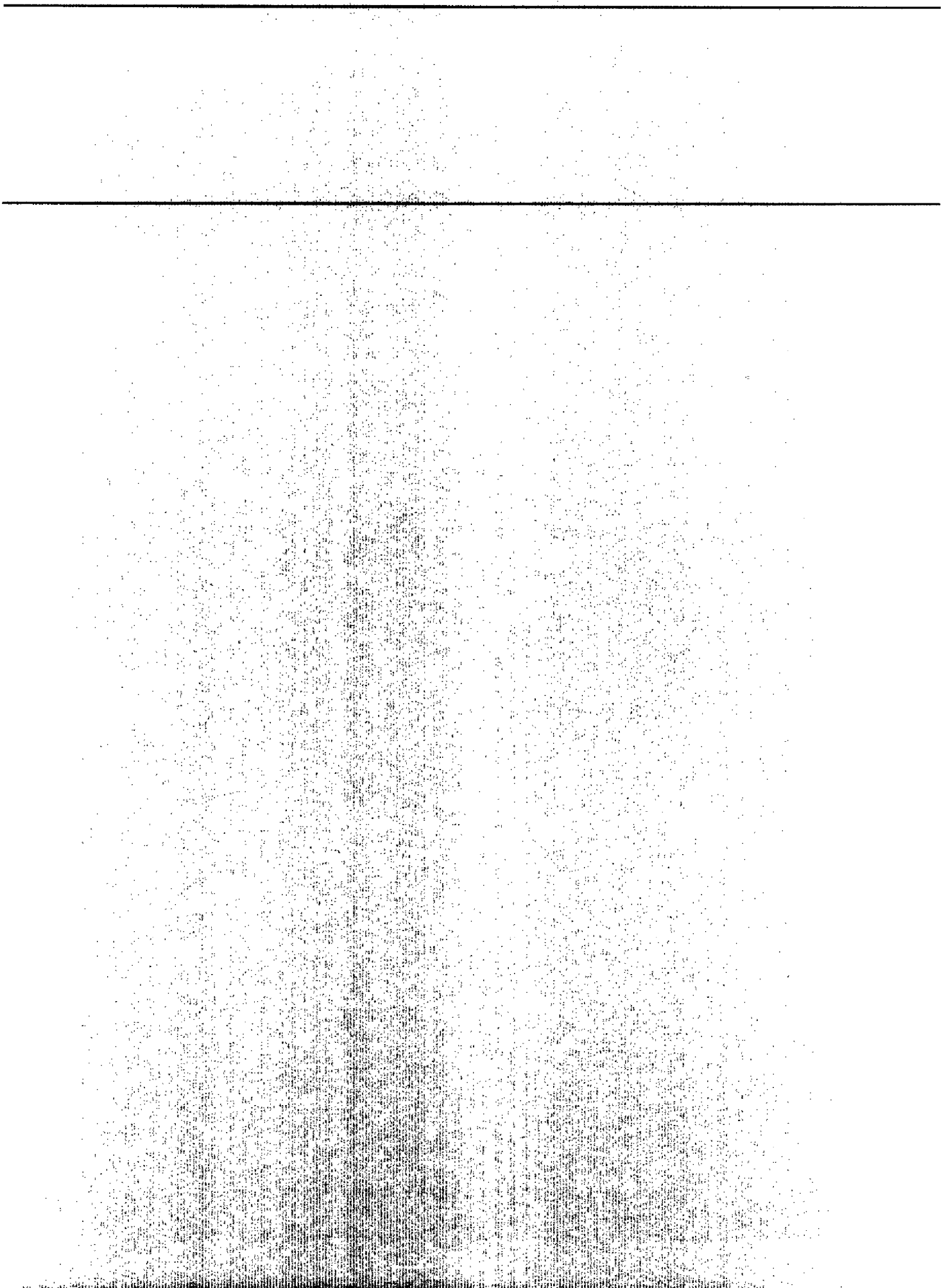

GAO

United States
General Accounting Office
Washington, D.C. 20548

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General Government Division

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March 4, 1994

The Honorable John Glenn
Chairman, Committee on Governmental Affairs
United States Senate

The Honorable Joseph I. Lieberman
United States Senate

As you requested, in this report we describe Kazakhstan's petroleum industry and identify issues affecting U.S. investment in Kazakhstan's petroleum sector. Our report focuses on these topics because the risk of disruption to Middle East oil production and the rising U.S. demand for foreign oil have increased national interest in sources of oil outside the Persian Gulf.

Specifically, this report provides information on Kazakhstan's potential as (1) a source of oil for the United States and (2) an investment opportunity for the U.S. petroleum industry and an export market for U.S. oil and gas equipment suppliers. We also give information on Kazakhstan's oil and gas production, reserves, exports, and consumption; the possible pipeline routes for bringing Kazakhstan's oil to export markets; the factors encouraging and discouraging investment in Kazakhstan's petroleum sector; and the efforts of the U.S. government to support exports to and investment in Kazakhstan's petroleum sector and U.S. oil companies' responses to those efforts.

Background

Covering a territory of over 1 million square miles, or about one-third of the continental United States, Kazakhstan is rich in oil, gas, and mineral deposits. Kazakhstan is the second largest producer of oil in the former Soviet Union after Russia, and is fifth in the production of natural gas (after Russia, Turkmenistan, Uzbekistan, and Ukraine). PlanEcon, a Washington, D.C.-based economic consulting firm that specializes in reviewing the countries of Eastern Europe and the former Soviet Union, published statistics showing that in 1992, Russia produced 88 percent of the former Soviet Union's crude oil. Kazakhstan accounted for just over half of the remaining 12 percent, or 6.2 percent of the total. During the same year, Kazakhstan produced 1 percent of the region's natural gas.[1] According to data compiled by an oil industry specialist with the Congressional Research Service and by the Department of Energy (DOE),

[1]PlanEcon's 1992 production figures for Kazakhstan are slightly higher than the corresponding figures from other sources. We have cited PlanEcon data here because PlanEcon has 1992 production figures for the former Soviet Union as a whole and for each individual former Soviet republic.

Kazakhstan contains about 6 percent of the former Soviet Union's proved oil reserves and 9 percent of its total oil resources.[2]

Since declaring its independence on December 16, 1991, Kazakhstan has signed a trade agreement with the United States in May 1992, and upon the exchange of diplomatic notes, was granted most-favored-nation[3] status in February 1993 under the agreement's provisions. U.S. exports to Kazakhstan totaled $14.6 million in 1992, and U.S. imports for the year came to $20.8 million. Kazakhstan and the United States have also negotiated bilateral investment and tax treaties. The bilateral investment treaty entered into force in December 1993 with the exchange of the instruments of ratification. The treaty to avoid double taxation is near approval. Kazakhstan has observer status at the General Agreement on Tariffs and Trade[4] and is a member of the International Monetary Fund and the World Bank.[5] Kazakhstan is also a member of the European Bank for Reconstruction and Development and the Asian Development Bank.

Bordering areas of ethnic unrest and situated in a region where Turkey and Iran are vying for influence, Kazakhstan has a population of 17 million people, of which about 40 percent are Russian and 40 percent are Kazakh; the remainder are Ukrainian, Byelorussian, German, Korean, and others. Over 80 percent of the population speak Russian, and about 40 percent speak Kazakh, a language related to Turkish.

Results in Brief

Kazakhstan is not likely to become a major source of oil for the United States, although Kazakhstani oil production could affect world oil prices in the future. The Central Asian nation in 1992 produced slightly more than half-a-million barrels of oil per day, or about 0.75 percent of world oil production capacity (estimated at 68.3 million barrels per day in 1992). If Kazakhstan reaches its target of 1.65 million barrels per day for the year

[2]"Proved oil reserves" refers to crude oil that geological and engineering data have shown with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions. "Total oil resources" includes proved reserves and reserves that may be recoverable in the future.

[3]Most-favored-nation treatment generally refers to the practice of extending to a country the best trade privileges granted to any other nation in the form of the lowest tariff rates and other charges imposed on imported products. Normally, most-favored-nation treatment is granted on a reciprocal basis.

[4]The General Agreement on Tariffs and Trade is an organization which currently has more than 100 participating nations. Its goal, as set forth in the preamble to the 1948 General Agreement, is "the substantial reduction of tariffs and other barriers to trade."

[5]Kazakhstan has received a $180 million rehabilitation loan from the World Bank that includes $30 million for oil extraction machinery.

2005, it would account for about 2 percent of DOE forecasts of world production capacity for the first decade of the next century.[6] If the supply of oil from the Organization of Petroleum Exporting Countries (OPEC) and the other oil exporting nations is already tight, as was the case during the oil shock of the early 1970s, this level of output, which is more than the current production from Alaska's Prudhoe Bay, could exert downward pressure on world oil prices. If, on the other hand, there is a relative oil glut, leading to softness in oil prices and rendering OPEC relatively ineffective, as is the case today, Kazakhstan's oil would have less of a potential impact.

Kazakhstan's potential status as a more important supplier of oil is weakened by the fact that any pipeline bringing Kazakhstani oil to export markets would have to pass through politically unstable areas. Other factors that could influence Kazakhstan's potential as a more important oil supplier include unknown variables, such as its future oil consumption, about 336,000 barrels per day in 1992, according to data compiled by PlanEcon, and the amount of oil that can be produced from its portion of the Caspian Sea, which has not yet been explored.

Nevertheless, Kazakhstan does represent a valuable opportunity for U.S. investment and for U.S. exports of oil equipment and services. Although total Kazakhstani oil production may be only a small percentage of world production, Kazakhstan has several large oil and gas fields that could generate substantial returns for investors, according to U.S. petroleum industry sources. Representatives of U.S. oil companies and equipment suppliers have stated that the U.S. embassy in Kazakhstan has been particularly helpful in assisting them. Other U.S. government agencies helping potential exporters to and investors in Kazakhstan's petroleum sector include DOE, the Department of Commerce, the U.S. Export-Import Bank (Eximbank), the Overseas Private Investment Corporation (OPIC), and the Trade and Development Agency (TDA).

Scope and Methodology

To gain information on Kazakhstan's potential as a source of oil for the United States, we obtained documents from and interviewed U.S. government officials from the Departments of Commerce, Energy, State, the Central Intelligence Agency, and other agencies. We also obtained information from and interviewed visiting Kazakhstani government officials as well as representatives of the World Bank and private

[6]This level of production would rank it among the top 12 to 15 oil producers estimated by DOE for the years 2000 and 2010, with a crude oil output similar to that estimated for Libya or Nigeria.

consulting firms. Kazakhstan's oil and gas production for 1992, the first full year after the breakup of the former Soviet Union, and Kazakhstan's oil and gas reserves were particularly difficult to ascertain, since many sources reported different estimates. We have therefore provided a range of estimates for these items, together with the source from which we obtained each estimate.

To discuss Kazakhstan's potential as an investment opportunity for the U.S. petroleum industry and an export market for U.S. oil and gas equipment suppliers, we obtained the names of 20 companies in the U.S. petroleum sector that are doing business or considering doing business in Kazakhstan. We obtained the company names through officials at DOE and the Commerce Department's Business Information Center for the Newly Independent States. Ten of the companies responded to our request for a telephone interview. Of these 10 companies, 7 are involved in exploration and production (including 4 major oil companies and 3 smaller independent firms), and 3 contract with exploration and production companies to provide equipment or services. We also obtained information from and interviewed officials from U.S. government agencies, including the Departments of Commerce and Energy, Eximbank, OPIC, and TDA. In addition, we spoke with representatives of private U.S. law firms and attended conferences on Kazakhstan's efforts to develop taxation policies and a legal infrastructure.

Information in this report on the laws and regulations of Kazakhstan does not reflect original analysis on our part but rather interviews with foreign government officials, corporate officials, and other secondary sources.

We did our work between March and December 1993 in accordance with generally accepted government auditing standards.

Little Chance That Kazakhstan Will Be Major Source of Oil for United States

Kazakhstan's Oil and Gas Resources

Estimates of Kazakhstan's oil production in 1992 ranged from 503,000 to 553,000 barrels of oil a day, and estimates of its gas production ranged

from 286 billion to 311 billion cubic feet of natural gas (see app. I, table I.1). According to the lower oil production figure, which is an average barrels-per-day estimate compiled by DOE, Kazakhstan was the 26th-ranking oil producer in the world in 1992; the higher figure, which was obtained from data compiled by PlanEcon, would put it at about 22nd place (see table I.2).[7] Using either figure, Kazakhstan accounted for about 0.75 percent of world oil production capacity (68.3 million barrels per day) estimated by DOE for 1992.

Kazakhstan's President hopes to increase production to 1.65 million barrels per day by 2005. This volume of production is more than the 1.1 million barrels per day currently produced by the U.S.' largest oil field in Alaska's Prudhoe Bay and represents about 2 percent of DOE forecasts of world production capacity for the first decade of the next century. However, the potential impact of an additional 1.65 million barrels per day on world oil prices depends on the condition of the market. Kazakhstan's oil is likely to exert greater downward pressure on prices if it enters a market like that of the early 1970s, in which supply was tight and small OPEC production cuts led to large price increases, than if it enters a market like today's of excess supply and falling prices.

Estimates of Kazakhstan's proved oil reserves range from just over 3 billion barrels (according to the Congressional Research Service) to about 16 billion barrels (according to Kazakhstan's Ministry of Energy and Fuel Resources). The more conservative figure, estimated at 3.3 billion barrels, would place Kazakhstan 20th in the world. This figure represents 0.5 percent of the proved reserves in the Persian Gulf and is less than the 3.7 billion barrels estimated for Qatar, the Gulf state with the smallest amount of proved reserves (see fig. I.1).[8] These estimates do not include

[7]Many sources, including PlanEcon, give production figures in metric tons. PlanEcon reports that Kazakhstan produced 27.831 million metric tons of oil (553,000 barrels per day) in 1992. Other sources, including the Central Intelligence Agency and the World Bank, report 1992 production figures of 25.7 million metric tons (510,000 barrels per day) and 25.6 million metric tons (509,000 barrels per day), respectively. The World Bank obtained its figure from the Kazakhstani Ministry of Energy and Fuel Resources. PlanEcon calculated its figure using data from the ministry, oil-producing entities not under the ministry's control, and other sources.

We converted the metric ton figures to barrels per day using the DOE-approved rate of 7.27 barrels per metric ton of (former) Soviet crude and dividing the result by 366 days for 1992. We did the same for oil export and consumption figures, discussed later, since most sources also report this information in metric tons.

Reports of Kazakhstan's gas production range from 8.1 billion to 8.8 billion cubic meters. We converted the metric values to cubic feet using the DOE-approved rate of 35.315 cubic feet per cubic meter.

[8]The tiny state of Bahrain, which has a negligible amount of oil reserves, is excluded.

the offshore deposits in the northern Caspian Sea, which are slated to be explored over the next several years.

Kazakhstan began exporting oil to markets outside the former Soviet Union in 1992 at a rate of about 97,500-129,000 barrels per day. According to PlanEcon, the country's apparent consumption of crude oil has fluctuated over the past 8 years from a low of about 277,000 barrels per day in 1985 to about 367,000 barrels per day in 1989 (see table I.3).[9] Kazakhstan consumed about 336,000 barrels per day in 1992. On the other hand, Kazakhstan does not export gas outside the former Soviet Union. Its gas consumption, which is roughly double its gas production, has risen steadily from about 388 billion cubic feet in 1985 to about 636 billion cubic feet in 1992. To meet this shortfall, Kazakhstan imports gas from Turkmenistan and other countries in the former Soviet Union.

Problems in Getting the Oil to Market

Kazakhstan is a landlocked country, which makes exporting oil difficult (see fig. 1).[10] A number of pipeline routes have been discussed, the most likely being one that will carry oil from western Kazakhstan through southern Russia to a port on the Black Sea (see app. II). The governments of Kazakhstan, Russia, and Oman have formed a consortium to build a pipeline along this route. However, questions concerning the distribution of income from the pipeline within the Russian Federation may affect Russia's ability to participate in the consortium.

[9]"Apparent consumption" is defined as production plus imports minus exports. "Imports" and "exports" in this instance refer to inflows from and outflows to Russia and the other republics of the former Soviet Union.

[10]The Caspian Sea, which borders Kazakhstan to the west, offers no outlet to major international waterways through which oil could be shipped to world markets.

Figure 1: Map of Eurasia

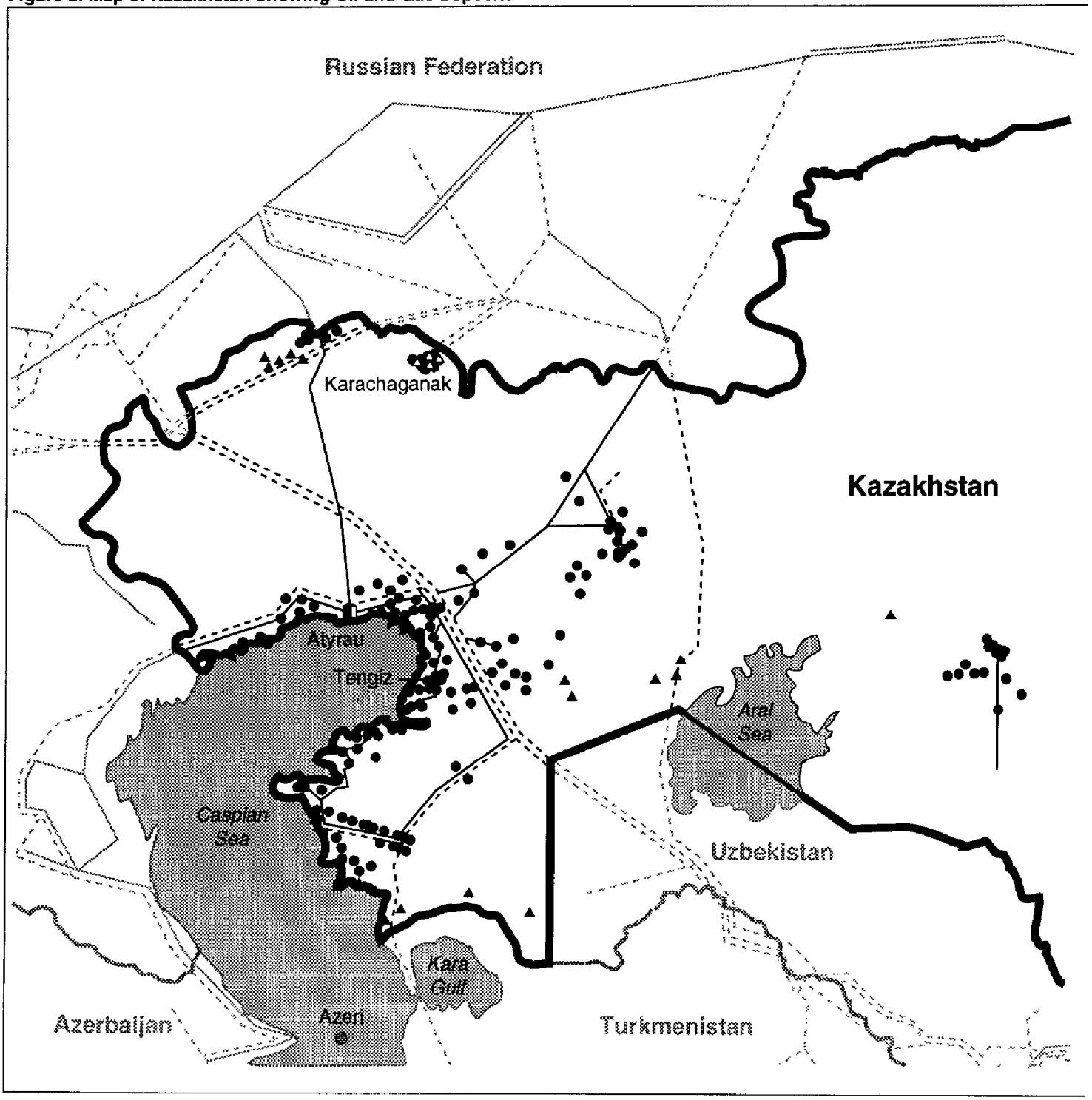
Alternate pipeline routes to the Black Sea or the Mediterranean would have to pass through areas of ethnic strife, including Azerbaijan and Armenia, and Kurdish regions in Turkey. Pipelines to the Persian Gulf or the Indian Ocean would have to go through countries such as Iran, Turkmenistan, Afghanistan, and Pakistan.

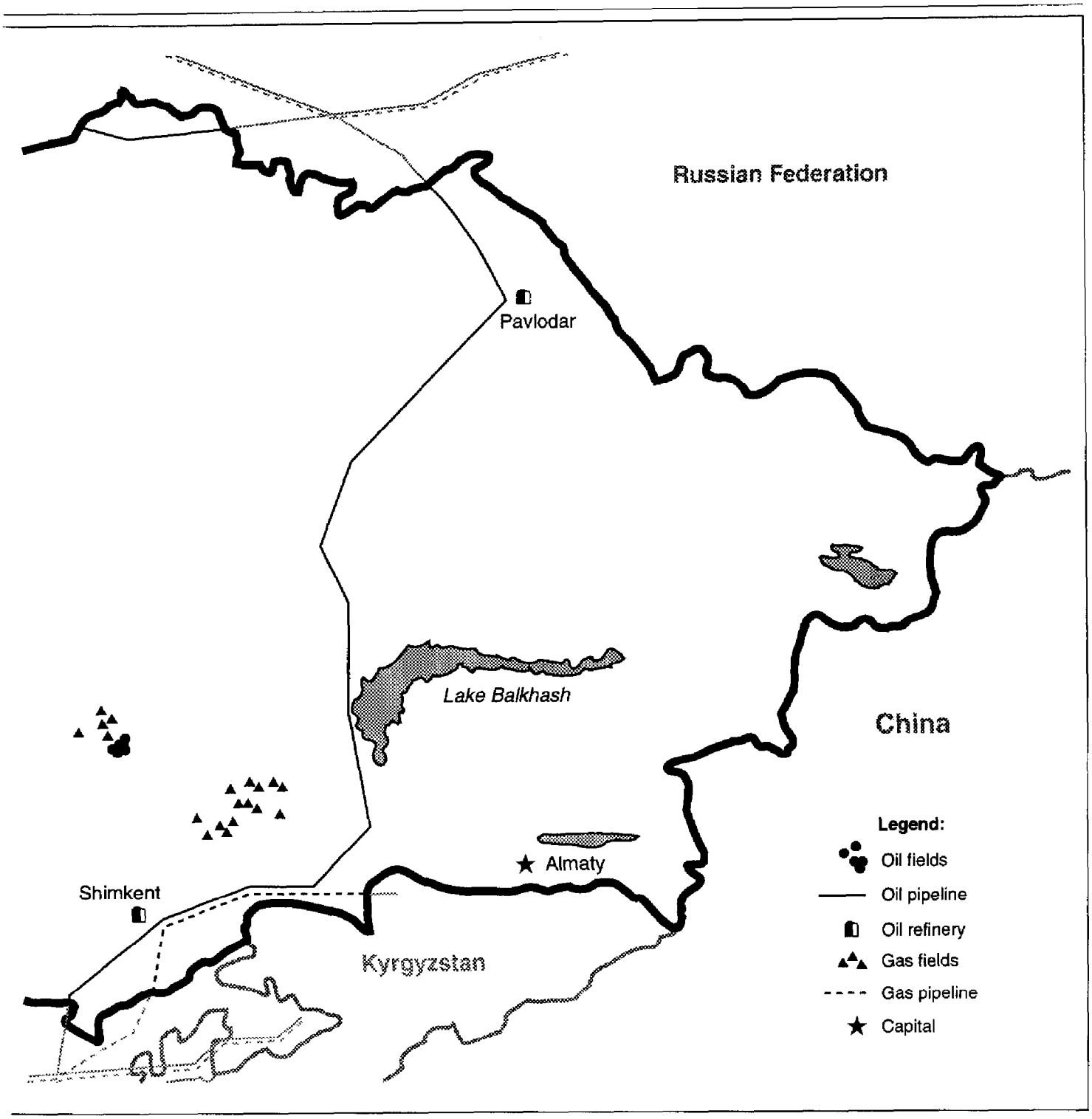
Kazakhstan Offers Commercial Opportunity

Attractions and Disincentives in Kazakhstan's Business Climate

According to representatives of seven U.S. oil companies and oil equipment and service suppliers whom we interviewed, Kazakhstan is attractive to exporters and investors because it has good-sized oil and gas deposits. Many of the exporters and investors we spoke with also perceive its government to be more stable than the governments of Russia or many of the developing countries where these companies operate (see app. III). For example, Chevron has signed a contract to develop the country's largest oil field (in Tengiz), and a major gas field (in Karachaganak) is being developed by British Gas and Agip, an Italian company (see fig. 2 for an illustration of major oil and gas fields in Kazakhstan).

Figure 2: Map of Kazakhstan Showing Oil and Gas Deposits





(Figure notes on next page)

Source: Petroleum Economist, in association with Price Waterhouse World Petroleum Industry Group.

The drawbacks to doing business in Kazakhstan include the logistics of exporting the oil; the lack of clear-cut Kazakhstani laws governing investment, taxation, and other business matters; and the fact that, as in many developing countries, deals and decisions are often dependent on a few key individuals as opposed to established laws, regulations, and institutions.

The Kazakhstani government is in the process of drafting an oil and gas law and a tax law and modifying taxes applicable to oil companies and equipment and service suppliers, according to U.S. oil industry representatives investing in Kazakhstan or seeking to do business there. However, the December 1993 dissolution of Kazakhstan's parliament may delay this process; new elections are scheduled for March 1994. U.S. oil industry representatives also suggested that Kazakhstan improve its export permit system and make its laws and regulations more transparent (understandable and open to scrutiny).

Help From U.S. Government Agencies

The U.S. embassy in the Kazakhstani capital of Almaty and the Departments of Commerce and Energy have provided information to U.S. oil industry representatives and helped them contact Kazakhstani officials (see app. IV). Assistance for U.S. investors in and exporters to Kazakhstan is also available from several other U.S. government agencies, including Eximbank, which offers short-term export credit insurance and a type of project financing; OPIC, which provides political risk insurance, project financing, and investment-related services; and TDA, which funds feasibility studies.

Praise and Criticism From U.S. Oil Companies

Oil industry officials praised the U.S. ambassador to Kazakhstan and his staff, but some company officials were critical of other U.S. government efforts, saying that they had experienced difficulties with Eximbank's borrowing criteria and OPIC's application process. Several officials noted that there are other obstacles to U.S. investment in Kazakhstan, including U.S. tax policies, export restrictions, and administrative difficulties for Kazakhstanis traveling to the United States, and intervention by European governments on behalf of European oil companies (see app. IV).

Agency Comments

We discussed the information presented in this report with U.S. government and industry officials. The government officials included analysts from DOE's Energy Information Administration, its Office of Energy Markets and End Use/International Statistics Branch, and its Office of Oil and Natural Gas Policy; the State Department's Economics Officer for the Office of Independent States and Commonwealth Affairs; the Congressional Research Service's Specialist in Earth Sciences at its Science Policy Research Division; Eximbank's Acting General Counsel and its loan officer responsible for the newly independent states of the former Soviet Union; an OPIC insurance officer responsible for Kazakhstan; and TDA's Regional Manager for the Commonwealth of Independent States. The industry officials included the Manager for Planning and Budget of the CIS Business Unit for Chevron Overseas Petroleum; and oil and legal experts at consulting firms and law firms that do business in Kazakhstan and other parts of the former Soviet Union.

The comments we received were primarily minor factual clarifications, which we have included where appropriate throughout the report. In addition, the officials at Eximbank and OPIC disputed some claims made by several of the company representatives we interviewed that assistance at these agencies is difficult to obtain. We have included the company representatives' claims and the Eximbank and OPIC comments in appendix IV. Finally, a private attorney who has worked extensively with the United Nations and represented many developing countries, including Kazakhstan, objected to our apparent singling out of Kazakhstan as a country operating more under a rule of men than a rule of law where power is concentrated in just a few key individuals. He said this problem exists in many developing countries. We have modified the appropriate paragraph to reflect this point.

We are sending copies of this report to the Secretaries of Commerce, Energy, and State; the President and Chair of the Board of Directors of Eximbank; the President and Chief Executive Officer of OPIC; the Director of TDA; and other interested parties. Copies will also be made available to others upon request.

Please contact me on (202) 512-4812 if you have questions concerning this report. Other major contributors to this report are listed in appendix V.

Allan I. Mendelowitz, Managing Director
International Trade, Finance,
and Competitiveness

Contents

Abbreviations

DOE	Department of Energy
Eximbank	U.S. Export-Import Bank
GAO	General Accounting Office
KAZNIGRI	Kazakhstani Scientific Research Geological Exploration Institute
OPEC	Organization of Petroleum Exporting Countries
OPIC	Overseas Private Investment Corporation
TDA	Trade and Development Agency

Kazakhstan's Oil and Gas Production, Reserves, Exports, and Consumption

Oil and Gas Production

According to data maintained by the former Soviet Union's State Committee for Statistics (Goskomstat), Kazakhstan's oil production increased from about 455,000 barrels per day in 1985 to about 530,000 barrels per day in 1991 (see table I.1). Natural gas production in Kazakhstan also rose, from about 193 billion cubic feet in 1985 to about 278 billion cubic feet in 1991. Oil and gas production figures for 1992, the first full year after the breakup of the Soviet Union, vary depending on the source quoted. Oil production estimates ranged from 503,000 to 553,000 barrels per day, and gas production estimates from 286 billion to 311 billion cubic feet. Depending on the figure used, Kazakhstan's oil production in 1992 represented between 0.74 and 0.81 percent of 68.3 million barrels per day, which is the world oil production capacity estimated by the Department of Energy (DOE) for 1992. At the end of 1992, over 10 percent of Kazakhstan's more than 11,000 oil and gas wells were exhausted, and over 100 more wells were idle due to lack of equipment, according to an oil industry publication.

Table I.1: Oil and Gas Production in Kazakhstan, 1985-92

Product	1985	1986	1987	1988	1989	1990	1991	1992
Oil[a]	455	472	487	507	506	514	530	503-553
Gas[b]	193	206	223	252	237	251	278	286-311

[a]Barrels in thousands per day.

[b]Cubic feet in billions.

Sources for 1985-1991 data: PlanEcon and Goskomstat. For 1992 oil data: DOE Office of Energy Markets and End Use, International Statistics Branch (lower figure) and PlanEcon (higher figure). For 1992 gas data: DOE Office of Energy Markets and End Use, International Statistics Branch (lower figure) and PlanEcon (higher figure).

Kazakhstan, at 26th place, ranked well below the world's top oil producers in 1992 (see table I.2).

Table I.2: World Oil Production, 1992

Rank	Country	Production[a]
1	Saudi Arabia	8,438
2	Russia	7,465
3	United States	7,171
4	Iran	3,429
5	China	2,838
6	Mexico	2,668
7	Venezuela	2,334
8	United Arab Emirates	2,325
9	Norway	2,122
10	Nigeria	1,982
11	United Kingdom	1,825
12	Canada	1,598
13	Indonesia	1,566
14	Libya	1,483
15	Algeria	1,217
16	Kuwait	1,029
17	Egypt	881
18	Oman	738
19	Malaysia	653
20	Brazil	626
21	India	558
22	Argentina	553
23	Australia	538
24	Angola	532
25	Syria	531
26	**Kazakhstan**	**503**
27	Iraq	450[b]
28	Colombia	438
29	Qatar	396
30	Ecuador	318

[a]Barrels in thousands per day of crude oil and lease condensate (natural gas liquid recovered at "lease" facilities in the field, which separate gas from liquid).

[b]Low production due to Gulf War.

Source: DOE Office of Energy Markets and End Use, International Statistics Branch.

In April 1993 Chevron concluded a deal with Kazakhstan to develop the Tengiz oil field, which is located on the northeast shore of the Caspian Sea. (For more on the Chevron contract, see app. III.) Discovered in 1979, this field is the largest oil deposit found worldwide since Mexico's Cantarell field in 1976. The Tengiz field has been producing oil for a little over 3 years. Development at Tengiz has been hindered by outmoded Soviet drilling and production equipment and the field's highly corrosive crude oil and difficult geologic conditions. According to Chevron, current production capacity at the field is about 65,000 barrels per day, although actual production averages about 25,000.[1] Production is expected to peak at about 700,000 barrels per day by 2010. The U.S. Central Intelligence Agency estimates that production from Tengiz could more than double Kazakhstani oil output to 1.25 million barrels per day within the next decade, placing Kazakhstan almost on a par with Libya, Nigeria, and Indonesia. Kazakhstan's President would like the country to reach a target of 1.65 million barrels per day by 2005.[2]

Kazakhstan also contains one of the former Soviet Union's largest natural gas deposits. The Karachaganak gas field, situated in the northwestern corner of the country, is being developed by British Gas and Agip, an Italian company (see app. III for details). The field currently yields about 250 billion cubic feet of gas a year. According to several international energy analysts at DOE, it is expected to produce over 700 billion cubic feet of gas annually—about equal to Iran's present gas production.

[1]The existing treatment facilities at Tengiz, which remove hydrogen sulfide and separate natural gas and other materials from the crude oil, have a capacity of 65,000 barrels per day. (Hydrogen sulfide must be removed before the oil can be shipped to refineries or exported. The oil at Tengiz has a particularly high hydrogen sulfide content. If left untreated, it would damage pipelines and contaminate the other oil flowing through the pipeline system.)

In addition, the Russians, who have a major say in the pipeline network through which oil flows out of Kazakhstan, have required the Kazakhstan-Chevron joint venture to install treatment facilities to remove other sulfur compounds, known as "mercaptans," which produce an extremely foul odor. This requirement was made in the spring of 1993, when the Chevron deal was signed. As a result, Chevron has only been able to produce an average of about 25,000 barrels of oil a day since then. Because this lower volume of oil has fewer mercaptans, it can be blended with the rest of the oil in the pipelines.

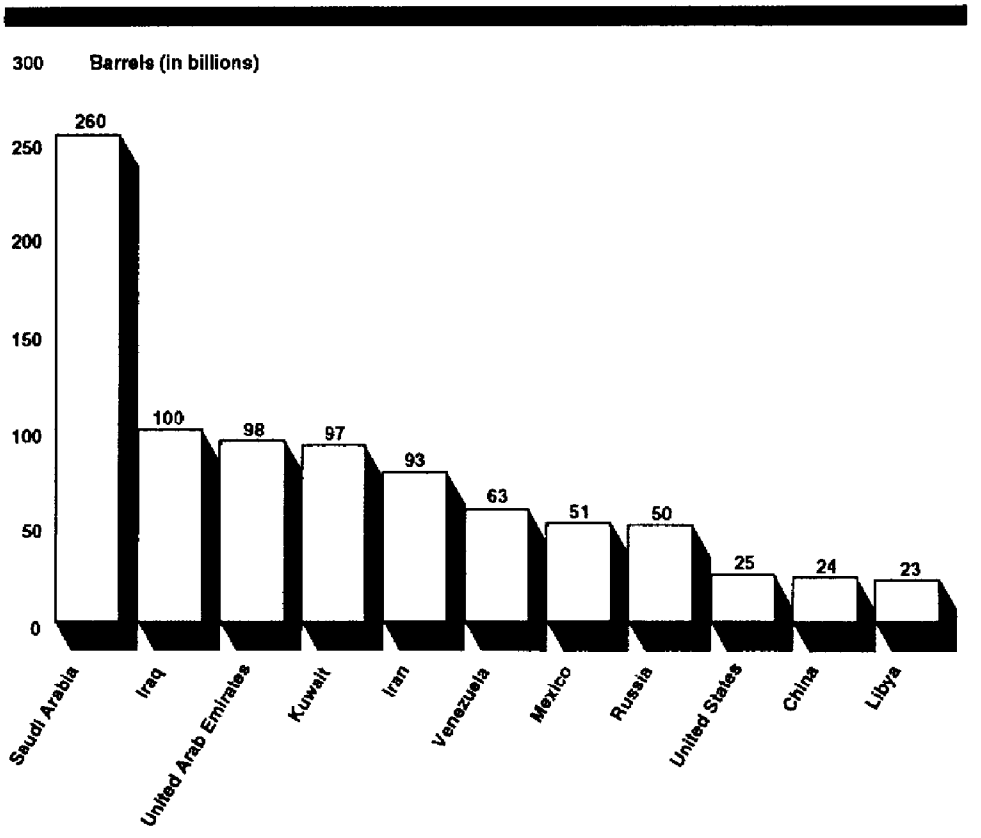
[2]This figure represents about 2 percent of DOE forecasts of world oil production capacity for the first decade of the next century. An additional 1.65 million barrels of oil a day supplied by Kazakhstan to the world market could cause prices to fall or to rise at a slower rate. (This amount is 1.5 times greater than the 1.1 million barrels per day now pumped from Prudhoe Bay, Alaska, the largest oil field in the United States.) The degree to which this target output could potentially affect world oil prices depends on the balance between demand for and supply of oil on the world market. The potential effect is likely to be greater when there is no excess supply of oil, such as in 1973-4, when the Organization of Petroleum Exporting Countries (OPEC) was able to cut production by a relatively small amount and bring about large price increases, than under today's conditions of excess supply.

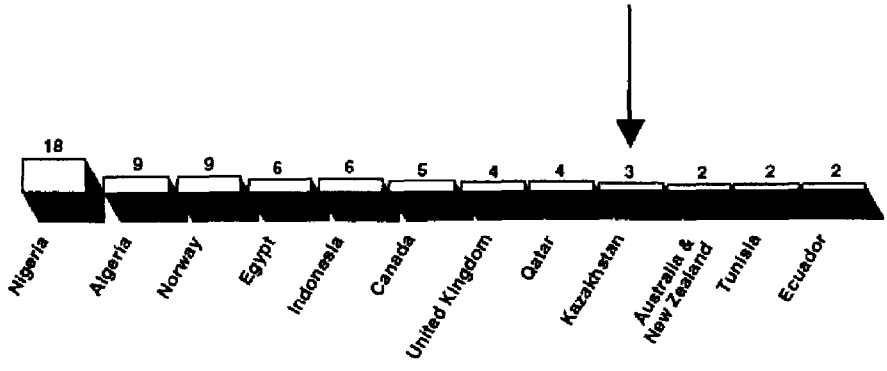
Oil and Gas Reserves

Although Kazakhstan does contain large amounts of crude oil and natural gas, the most conservative estimate of its total proved oil reserves is only 0.5 percent of the proved reserves in the Persian Gulf. As figure I.1 shows, Kazakhstan, with 3.3 billion barrels in proved oil reserves, according to data compiled by the Congressional Research Service, has fewer proved reserves than 19 other countries.[3] Kazakhstan's oil reserves are about 1 percent of those in Saudi Arabia, or just over 13 percent of those in the United States.

[3]The data show Kazakhstan with an additional 12 billion barrels in "probable reserve additions" (reserves that may be recoverable in the future).

Figure I.1: World Proved Crude Oil Reserves, 1992





Source for Kazakhstan: Congressional Research Service (1992). For other countries: DOE Energy Information Administration, International Energy Outlook, 1993.

Higher estimates of Kazakhstani oil reserves recoverable with existing technology range from 14 billion to 16 billion barrels. For example, Kazakhstan's Minister of Energy and Fuel Resources stated that Kazakhstan contains 2.2 billion metric tons, or about 16 billion barrels, of proved reserves. An oil industry expert at PlanEcon noted, however, that Kazakhstani estimates of proved reserves tend to be higher because the Kazakhstanis generally do not take into account the economic feasibility of extracting the oil.

For example, estimates of the oil resources in the Tengiz field are sometimes greater than those for the country as a whole. These estimates, which are not limited to proved reserves, range from 3 billion to 25 billion barrels. Chevron estimates that the field contains 24 billion barrels of oil "in the ground," of which it presently considers 5.84 billion barrels to be recoverable.

As with oil, estimates of Kazakhstan's gas reserves vary. DOE estimates that the country contains 26 trillion cubic feet of proved gas reserves, while an energy consultant cited by DOE analysts gives a figure of 56.9 trillion cubic feet. The Congressional Research Service estimates that Kazakhstan has 18 trillion cubic feet of proved gas reserves, with the possibility that an additional 68 trillion cubic feet may be recoverable in the future. According to the Kazakhstani Scientific Research Geological Exploration Institute (KAZNIGRI), Kazakhstan has 62.9 trillion cubic feet of total gas reserves and 6.01 billion barrels of condensate (natural gas liquid recovered from gas wells and processing plants). KAZNIGRI estimates potential reserves to be 280 trillion cubic feet of gas and 15 billion barrels of condensate. Estimates of gas reserves in the Karachaganak field come close to 20 trillion cubic feet.

Offshore Area to Be Explored

The above estimates of Kazakhstan's oil and gas reserves do not include the northern portion of the Caspian Sea off the Kazakhstani coast. This area, encompassing about 103,000 square kilometers, or about 40,000 square miles, may contain more oil than the Tengiz field and the rest of Kazakhstan. KAZNIGRI estimates potential oil reserves in the area near the Caspian Sea to be about 50 billion barrels, including about 15 billion barrels offshore.

A consortium of seven major oil companies was formed to conduct an initial exploration of the area over the next 3 years. On December 3, 1993, the consortium and the Kazakhstanis reached a formal agreement to proceed with the exploration plan. According to Kazakhstan's Deputy Minister of Energy, the extraction of the oil found there could begin around the turn of the century. The consortium participants include one U.S. company, Mobil, and six others: Italy's Agip, British Gas, Holland's Shell, France's Total, and a joint entry by British Petroleum and Norway's Statoil.

There are several complications involved in exploring and developing this area, however. These complications include unresolved boundary issues between Kazakhstan and neighboring states, and environmental concerns. For example, this part of the Caspian Sea is a major fishing area, an industry of vital importance to Russia and Kazakhstan, providing 90 percent of the world's caviar and other sturgeon products. In addition, the region has special ecological value, and a large part of it is in a nature preserve.

Oil and Gas Exports and Consumption

Kazakhstan began exporting crude oil outside the former Soviet Union in 1992 through a swap arrangement with Russia. Depending on the source quoted, the rate at which Kazakhstan's oil was exported ranged from about 97,500 to about 129,000 barrels per day. (For details, see app. II.) With regard to the destination of the exports, Kazakhstan signed agreements with Poland and Cuba for 1992 and renewed its agreement with Poland for 1993. Kazakhstan does not export natural gas outside the former Soviet Union.

According to PlanEcon, in 1992 Kazakhstan consumed about 16.9 million metric tons, or about 336,000 barrels of crude oil per day, in its refineries, down from a high of about 18.4 million metric tons, or about 367,000 barrels per day, in 1989 (see table I.3). The country consumes about twice as much natural gas as it produces.[4] Gas consumption has risen steadily, from about 388 billion cubic feet in 1985 to about 636 billion cubic feet in 1992.

Table I.3: Oil and Gas Consumption in Kazakhstan, 1985-92

Product	1985	1986	1987	1988	1989	1990	1991	1992
Oil[a]	277	350	361	350	367	356	359	336
Gas[b]	388	417	434	445	470	509	547	636

[a]Barrels in thousands per day.

[b]Cubic feet in billions.

Source: PlanEcon. Oil data converted from metric tons and gas data converted from cubic meters by GAO (see fn. 7, p. 5).

The oil consumption figures, which represent the crude oil processed through the country's three refineries,[5] were calculated by adding production to imports and subtracting exports. Imports and exports in this case consist primarily of inflows from and outflows to Russia and the other republics of the former Soviet Union. The gas consumption figures

[4]Most of Kazakhstan's gas production is concentrated in the sparsely populated western part of the country, far from the capital and other major cities in the east. Because Kazakhstan has no east-west gas pipelines, it imports gas via existing north-south pipelines from Turkmenistan and to a lesser extent, Uzbekistan and Russia. Some of the gas produced by the Karachaganak field in the northwestern tip of Kazakhstan is shipped northward via pipeline to a processing plant on the Russian side of the border and consumed in Russia.

[5]One of the refineries is located in Atyrau, not far from the Tengiz oil field. The other two are located in the eastern part of the country, near the cities of Pavlodar and Shimkent (see fig. 2, p. 10). As with gas, Kazakhstan has no east-west oil pipeline to connect its oil fields in the west—which ship their crude oil to Russia—with its refineries in the east, which process Russian crude from Siberia. To reduce its dependence on Russia, the Government of Kazakhstan plans to create a joint stock society to build a pipeline from Tengiz to the Pavlodar-Shimkent pipeline.

include Kazakhstani production and inflows from Russia and other former republics.

Getting the Oil to Market

Pipeline Options

According to U.S. oil industry sources, the capacity of the existing pipeline system through Russia and the other former republics is already 80-90 percent full with flows from current production.[1] It will not be able to handle the expected flow from the new exploration and production that will be taking place in Kazakhstan.

One U.S. oil industry consultant characterized the options for getting oil out of landlocked Kazakhstan as "a feast of bad choices." Any pipeline route would have to pass through portions of the Russian Federation and other regions that are politically unstable, increasing the risk that a pipeline could be blown up, become subject to excessive fees, or be otherwise sabotaged.

Routes to the Black Sea would have to cross Russia, Azerbaijan, Armenia, or Georgia. Routes to the Mediterranean would be channeled through many of these same areas, as well as the northern tip of Iran or Kurdish territories in eastern Turkey.

Oil could also be sent south, to ports on the Indian Ocean, but this route would involve pumping the oil through the newly independent Islamic states of Uzbekistan and Turkmenistan or Kyrgyzstan and Tajikistan. Tajikistan is currently experiencing ethnic unrest. A southern route would also have to go through Iran or Afghanistan and Pakistan.

Kazakhstan currently "exports" oil to markets outside the former Soviet Union through a swap arrangement via the Russian-controlled pipeline network. Under the arrangement, Kazakhstan disbursed about 129,000 barrels of oil per day into Russia for this purpose in 1992, according to PlanEcon.[2] The Kazakhstanis' customers were then allowed to pick up an equal amount of Russian oil for export from a Russian port. Roughly half this amount, or about 65,000 barrels per day, was produced by the Tengiz

[1]An oil industry expert clarified this statement by saying that parts of the existing pipeline network from Kazakhstan's Atyrau refinery on the north coast of the Caspian Sea to the port of Novorossiysk on the Black Sea are already at capacity, while other portions along this route are at 60 percent of capacity.

[2]PlanEcon obtained an export swap volume of 6.484 million metric tons of oil from Transneft, the entity that operates the existing pipeline system in the former Soviet Union. Using the DOE-approved conversion rate given in footnote 7 on page 5, we arrived at a figure of 128,794 barrels per day. Other sources have come up with export estimates ranging from about 97,500 to 120,000 barrels per day.

oil field, which is now being developed by Chevron.[3] Russia has agreed to increase the swap amount when the Kazakhstan-Chevron joint venture completes additional treatment facilities,[4] which will allow the joint venture to disburse up to 130,000 barrels per day. According to Chevron, the new facilities should be in operation by the beginning of 1995.

The Caspian Pipeline Consortium

A U.S. oil industry executive pointed out that two major oil deposits will drive pipeline construction: the Tengiz field in northwestern Kazakhstan, and the Azeri, Chirag, and Guneshli fields in the Caspian Sea, which are just off shore from Azerbaijan's capital of Baku. According to the executive, each deposit is large enough to justify a separate pipeline.

The oil executive noted that the Black Sea port of Novorossiysk is the most logical port for the Tengiz oil. As figure 1 shows (see p. 7), the route from Tengiz to Novorossiysk, which passes from western Kazakhstan through southern Russia, is shorter and more direct than routes to other ports on the Black Sea, the Mediterranean, or the Indian Ocean.[5] In June 1992, a consortium was formed by Kazakhstan and Oman to construct a pipeline along this route. Russia subsequently joined the consortium. Azerbaijan took part in initial discussions regarding the consortium, but declined to formally join it. Azerbaijan is now reevaluating that decision.

According to an oil industry consultant, the Tengiz-Novorossiysk pipeline will cost about $1.25 billion to build. Initially, the pipeline would have a capacity of 300,000 barrels per day, with a peak capacity eventually expected to reach 1.5 million barrels per day, or about three times the volume of Kazakhstan's current oil production. The World Bank estimates that by the year 2000, the pipeline will carry 490,000 to 1 million barrels of oil per day.

[3]The 65,000 barrels-per-day production figure was for 1992, before the Chevron deal was signed and Russia began requiring that the oil flowing from Tengiz be treated to remove mercaptans (see app. I, fn. 1, on p. 20). Due to this requirement, production at Tengiz now averages about 25,000 barrels per day.

Chevron officials note that not all the 65,000 barrels per day produced in 1992 was swapped for export.

[4]These facilities include equipment to remove mercaptans and a second treatment plant to remove hydrogen sulfide from the crude oil. (For a definition of mercaptans and an explanation of why mercaptans and hydrogen sulfide must be removed, see app. I, fn. 1, on p. 20.)

[5]Novorossiysk would not be the most logical port for Azeri oil. A pipeline for Azeri oil would have to cross Armenia, Iran, or southeastern Turkey. Oil companies are not comfortable with such a route because of the political risk involved.

The pipeline consortium was ratified by Russia's parliament in July. However, the question of how profits and other returns from the pipeline will be distributed within the Russian Federation has not yet been settled. Although this issue is an internal Russian matter, if it is not resolved it could affect Russia's cooperation with the consortium. The oil industry consultant said that, barring any problems, construction of the pipeline is expected to start in early 1995.

To diminish Russian leverage on transport, Kazakhstan is considering four alternatives for a subsequent pipeline that would be built in conjunction with the development of offshore fields in the Caspian Sea: (1) extending the Tengiz pipeline south from Russia through Azerbaijan to a Turkish port on the Mediterranean; (2) building a sub-sea pipeline from the offshore fields to Azerbaijan and from there through Iran to the Persian Gulf; (3) piggybacking onto Turkmenistan's plans to build a gas pipeline that will hook into the Chinese pipeline system, terminating at ports on the East and South China seas; and (4) building a pipeline to Turkmenistan's existing refinery and then piggybacking on that country's plans to expand the Central Asian gas pipeline system to Pakistani ports on the Persian Gulf.

The oil industry consultant commented that Kazakhstan could send oil to Ukraine at a reduced cost by pumping it overland through the existing pipeline network or shipping it via a short sea shuttle from Novorossiysk across the Black Sea to the Ukrainian port of Odessa. (Ukraine has substantial refining capacity but few crude oil deposits on its territory.) By sending oil to Ukraine, Kazakhstan would have little or no marine shipping costs, and any oil tankers bound for Odessa would not have to pass through the bottlenecks of the Straits of Bosporus and the Dardanelles, which form the gateway from the Black Sea to the Mediterranean.

Another option for Kazakhstan, according to the consultant, is a three-way swap with Ukraine and Saudi Arabia. In this scenario, Kazakhstan would ship oil to Ukraine. Ukraine would then ship goods (e.g., agricultural produce, such as sugar beets) to Saudi Arabia. The Saudis would then pay Kazakhstan foreign currency for the oil it had shipped to Ukraine.

The Business Climate in Kazakhstan

Factors Encouraging Trade With and Investment in Kazakhstan

The issue of Kazakhstan's contribution to the U.S. oil supply is separate from the issue of Kazakhstan's commercial viability as an investment market for the U.S. petroleum industry and an export market for U.S. oil and gas equipment suppliers. Although Kazakhstan is not among the top 10 oil and gas producers or proved reserve holders, it does have several very large oil and gas deposits, including the Tengiz oil field and Karachaganak gas field (see app. I). In addition, the promise of sizable offshore resources that are soon to be explored (see app. I), together with the country's favorable attitude toward the West and its perceived stable political environment relative to other developing countries, is attractive to many of the investors and exporters we spoke with.

Representatives of the U.S. oil and gas companies and equipment suppliers we interviewed made a number of specific comments regarding Kazakhstan's potential as an investment and export market. One representative said that the size of the oil projects in Kazakhstan is bigger than similar projects in other countries, many of which are less stable and less friendly to the United States. Another representative noted that the business climate in Kazakhstan was more straightforward than in Russia because there is less conflict between central and regional authorities. Other representatives commented that the Kazakhstanis are eager to conclude deals with foreign investors and exporters and that, unlike Russia, they have opened one of their largest oil fields (Tengiz) to foreign investors. An equipment supplier stated that the Kazakhstanis have a high demand for the products and services his company provides, due in part to the drop in supplies from neighboring Azerbaijan. Azerbaijan, whose economy has been ravaged by ethnic strife, used to supply 80 percent of the former Soviet Union's oil and gas equipment.

Drawbacks to Doing Business in Kazakhstan

One of the main drawbacks to doing business in Kazakhstan mentioned by the industry representatives we interviewed is that the country's legal infrastructure is not yet fully developed. At present, there is no comprehensive law that directly addresses the oil and gas industry in Kazakhstan. The Code on Subsurface Resources and Crude Mineral Processing, which was passed on May 30, 1992, addresses all mineral operations, not just oil and gas, and therefore does not provide specific guidance for oil and gas projects. This code has been described as umbrella legislation that will provide a framework for more detailed oil and gas legislation.

Numerous other laws affect foreign investors in the oil and gas sector. These laws include legislation on foreign investment, property, free enterprise, and the development of economic activities, such as free economic zones and currency regulations. Industry representatives complained that these statutes, many of which were passed before Kazakhstan became independent, frequently conflict, so that their practical application is uncertain. For example, Kazakhstan currently has two laws predating independence that are still in force to govern foreign investments: the Law on Foreign Investments, adopted on December 7, 1990, and the Law on Investment Activities, adopted on June 10, 1991. One analyst notes that these laws are not harmonized, and therefore in some situations it would be difficult for a foreign investor to determine which would apply.

Further, the rapid pace of reform and the frequent changes in legislation also pose problems for investors in Kazakhstan. In 1993 alone, amendments to legislation had been passed in the areas of privatization, economic partnership, stock companies, foreign investments, insurance, ownership, the circulation of securities and stock exchanges, banks, and taxes. Many of these areas had already seen legislative changes in 1991 and 1992. Such frequent policy changes raise concerns among investors who would have to constantly renegotiate agreements.

Another problem is that business in Kazakhstan, as in many developing countries, is based more on individuals than legal institutions. Several of the company representatives we interviewed stated that power is concentrated in just a few people, which creates bottlenecks. In addition, although Kazakhstan is perceived by many of the exporters and investors we spoke with as relatively stable now, and those in power, including the President and key Energy Ministry officials, appear secure, it is hard to predict what may happen in the future. This is not an idle concern for oil and gas companies, which often enter into contracts spanning 20-40 years. (Chevron, for example, signed a 40-year contract to develop the Tengiz oil field.)

Finally, Kazakhstan's lack of a viable international port from which to export its oil for hard currency and the resulting pipeline dilemma

(discussed in app. II) have made some investors hesitant about making purchasing commitments from equipment suppliers.[1]

What the Government of Kazakhstan Has Done to Help

The Government of Kazakhstan is working with multilateral aid agencies and western legal and petroleum industry experts to formulate an oil and gas law and tax legislation. According to Kazakhstan's Prime Minister, the country is pursuing legislation that would permit the repatriation of profits, guarantee the sanctity of contracts, regulate the insurance industry, and encourage foreign participation in the privatization process. The Chairman of the Kazakhstani parliament's Committee on Economic Reform stated that the parliament would consider amendments to a law on foreign investment, a draft oil and gas law, and customs and tax reform. However, with the dissolution of parliament in December 1993, it is uncertain if and when these measures will be passed. Parliamentary elections are scheduled for March 1994. In the meantime, Kazakhstan's President may choose to enact legislation by decree.

In another development, Kazakhstan withdrew rubles from circulation and introduced its own currency, the tenge, in November 1993.

Representatives of western companies attending an October 1993 oil and gas exhibition in Kazakhstan cautioned that Kazakhstan's demands for infrastructure improvement, heavy taxes, and other requirements are scaring off western investors. They suggested that the Kazakhstanis let some initial projects generate sizable cash flows in order to attract further investment.

With regard to other actions the Kazakhstanis could take to encourage U.S. investment and trade, one of the U.S. company representatives we interviewed said that Kazakhstan could streamline its export permit process, a problem in many countries. Such streamlining could be achieved by issuing blanket permits that cover several million or several thousand tons of oil instead of issuing permits on a cargo-by-cargo basis. An equipment supplier noted that the Kazakhstanis could make their laws and regulations more clear, particularly those concerning tax deferrals or exemptions. He added, however, that Kazakhstan appears to be making progress.

[1]However, at an October 1993 international oil and gas exhibition in Kazakhstan, a number of equipment suppliers expressed an interest in direct sales to the Kazakhstani oil industry or in creating oil field equipment ventures to serve the domestic market. Several representatives reported that their firms were developing mechanisms to obtain payment and send their profits home to their own countries.

U.S. and Foreign Energy Ventures in Kazakhstan

As of December 1, 1993, there were 14 business ventures in Kazakhstan's oil and gas sector that involved U.S. oil and gas companies or providers of oil and gas-related equipment or services (see table III.1).

Table III.1: U.S. Energy Ventures and Related Activities in Kazakhstan

Company name	Project description
AMP International, Inc.	Signed protocol covering possible oil and gas field development and construction of non-oil infrastructure.
Anglo-Dutch Petroleum International, with Mangistaumunaygaz	A joint venture to develop the Tenge field in southwestern Kazakhstan. Total capital investment is estimated at $370 million.
Bechtel Petroleum, Chemical, and Industrial Co., with Tengiz Neftegas	Bechtel was awarded a 3-year contract by Chevron Overseas Petroleum and Tengiz Neftegas to participate in a management team that will oversee initial capital construction in the Tengiz and nearby Korolev oil fields.
Biedermann (Interkaspy), with Munai	Joint venture to develop the third largest oil field in Kazakhstan, situated northeast of the port city of Atyrau.
Caspian Pipeline Consortium (Bechtel, Willbros, with the governments of Kazakhstan, Oman, and Russia)	Construct pipeline from Tengiz to Novorossiysk, a port on the Black Sea. Estimated project cost is $850 million to $1.25 billion.
Chevron Overseas Petroleum, with the Kazakhstani government	Chevron signed an agreement with the Government of Kazakhstan on April 6, 1993, establishing Tengizchevroil as a 40-year, 50/50 joint venture to develop the Tengiz and Korolev oil fields. Chevron to invest over $1.5 billion over the next 3 years, including $50 million for local infrastructure improvements in the region surrounding Tengiz.
Clinical Data, Inc., with Gazprom	An affiliate of Clinical Data, Inc., will supply Gazprom with technology for use in a natural gas processing facility.
Enterra Oil Field Services	Two-year contract to supply rental tools and services to support Chevron's activities in Tengiz.
Exxon Ventures (CIS) Inc.	Exxon is establishing an office in Almaty to pursue business opportunities in Kazakhstan.
Gandalf Explorers International and Easternoil Services, Ltd., with Uralskgeo	Exploration and development near the town of Uralsk in the northwest tip of Kazakhstan.
Halliburton Kazakhstan Oilfield Services, with Kazakhstanmunaygaz	From its office in Atyrau in western Kazakhstan, Halliburton will service oil fields throughout the country by importing and operating pumps and performing drilling operations and other tasks.
K. Hill International, with Karazhanbastermneft	Joint stock company to assist in improving production at the Karazhanbas oil field, located south of Tengiz on the Caspian coast.
Mobil, with KAZCASPISHELF and 6 European oil companies	Participating in a consortium to explore Kazakhstan's portion of the Caspian Sea (see app. I, p. 24).
Parker Drilling Co., with TengizChevrOil	To provide drilling personnel to develop the Tengiz field.

Source: DOE Office of Oil and Natural Gas Policy.

As of December 1, 1993, there were 26 business ventures in Kazakhstan's oil and gas sector that involved European, Middle Eastern, and Asian investors or equipment suppliers (see table III.2). These ventures include six British firms; five Canadian; four Japanese; three French; two each from Germany, India, and Turkey; and one each from Dubai, Hungary, Italy, Malaysia, the Netherlands, Norway, Oman, Spain, Switzerland, and the United Arab Emirates.

The Government of Oman has been particularly active in Kazakhstan's oil sector. For example, it brokered the Chevron-Tengiz deal and is a key participant in the Caspian Pipeline Consortium, which is building a pipeline from Tengiz to the Black Sea.

Table III.2: Foreign Energy Ventures and Related Activities in Kazakhstan

Company name	Project description
Adams Pearson Associates Inc. (Canadian)	Contracted by the World Bank to assess an oil field in southwestern Kazakhstan (to forecast remaining reserves and detail further development requirements).
British Gas and Agip (an Italian company), with Karachaganakgazprom	To develop the Karachaganak gas field in Kazakhstan's northwestern corner. Investment may top $6 billion over the first 10 years, and $20 billion over the 40-year life of the project.
Cana-Kaz Global Oils (Canadian), with Mangystauneftgaz	A $48-million project to overhaul between 1,200 and 1,500 oil wells in the Mangystau region along the Caspian coast (south of Tengiz).
Caspian Pipeline Consortium (Bechtel and Willbros, with the governments of Kazakhstan, Oman, and Russia)	Construct pipeline from Tengiz to Novorossiysk, a port on the Black Sea. Estimated project cost is $850 million to $1.25 billion.
Daiwa Europe (Japanese)	To build a 120,000-barrel-per-day refinery that will process heavy crude oil from the Buzachi area of the Mangystau region. Costs expected to exceed $1.6 billion.
Easternoil Services Ltd. (British), with Uralskgeo	Joint venture to explore for oil and gas in the Uralskaya region in northwestern corner of Kazakhstan.
Elf Aquitaine (French), with Temirunai	$400-million production-sharing contract covering 7,450 square miles southwest of the town of Aktubinsk in northwestern Kazakhstan.
ENICO (Swiss)	Contract signed with several Kazakhstani enterprises to build a refinery in the central Kazakhstani province of Zhezqazghan with a capacity of about 10,000 barrels per day of crude oil.
Enterra Oil Field Services, with Dubai, the United Arab Emirates, and Tengizchevroil	Two-year contract to supply rental tools and services to support Chevron's activities in Tengiz.

(continued)

Company name	Project description
Hurricane Hydrocarbons Ltd. and Wega D. Geophysical Ltd. (Canadian)	Joint venture to develop 3 fields in the central Kazakhstani province of Zhezqazghan. Investment may top $350 million.
Hydrocarbon Engineering (French)	Contract signed to build a 120,000-barrel-per-day refinery near the existing Atyrau refinery at a cost of about $1.3 billion.
Indian Oil Corp. and Engineers India Ltd. (Indian)	Contract to modernize 3 refineries in Kazakhstan.
KAZCASPISHELF: offshore consortium with Agip (Italian), British Gas, British Petroleum, Mobil (U.S.), Shell (Dutch), Statoil (Norwegian), and Total (French)	To explore Kazakhstan's portion of the Caspian Sea. Production would start at the turn of the century if significant oil deposits are found.
Mitsui & Co., Mitsubishi Corp., and Toyo Engineering Corp. (Japanese)	To build a 120,000-barrel-per-day refinery on the northeast coast of the Caspian Sea south of Tengiz. Plant to refine crude oil from Tengiz and other nearby fields and is expected to cost about $1 billion.
Nichiman Corp. and Ronar Services (British), and Hydrocarbon Engineering (French)	To upgrade capacity of Atyrau refinery on the northern coast of the Caspian Sea from existing 104,000 barrels per day to 120,000 barrels per day by 1998.
Oman Oil Co., with the Government of Kazakhstan	Joint exploration/development agreement signed with Oman to fund 8-year search for crude oil in the Atyrau region bordering the Caspian Sea. Concession covers 6,250 square miles for 40-year term. Total investment is $2.7 billion, with $150 million to be spent during the first 3 years.
Petronas (Malaysian), with Kazakhstanneftgaz	Exploration and development offshore in the Caspian Sea and in southern Kazakhstan, east of the Aral Sea.
Repsol (Spanish), with Enterprise Oil (British)	To survey 4,705 square miles about 125 miles northeast of the Caspian Sea in western Kazakhstan.
Ronar (a British, French, and German banking group), with Hydrocarbon Engineering Transnational Co., the Kazakhstani Ministry of Energy, and Kazakhstanmunaigas.	Joint venture to modernize Atyrau refinery. Products produced to include clear gasoline, diesel fuel, and kerosene. Project to cost over $1 billion.
Stetlan (German)	To explore 3 undeveloped fields in the Atyrau region bordering the Caspian Sea.
TPAO/PET (Turkish), with Kazakhstani State Oil Co.	To operate 5 existing oil fields. The Kazakhstanis will have a 50-percent interest in the venture.
Tropak Systems (Canadian), with Kazakhstani Gas Company	Agreement signed to build a refinery that will provide 330,000 tons of gas, diesel fuel, and liquid gas annually.

(continued)

Company name	Project description
United Biresmis Muhendisler Burosu (Turkish)	To operate 4 oil fields and rehabilitate oil wells.
Vego Oel (German), with Yuzhkazneft	Negotiating for right to develop 3 oil fields in southern Kazakhstan, east of the Aral Sea. Already has participated in 3 pilot wells.
Vegyepszer (Hungarian), with Embaneft	10-year joint venture to develop oil field in Atyrau region bordering the Caspian Sea.
Vegyepszer (Hungarian), with Tengizchevroil	Joint venture to build facilities to support the Tengiz field. One-year agreement worth $100 million to build roads and other infrastructure; agreement can be extended annually.

Source: DOE Office of Oil and Natural Gas Policy.

U.S. Government Efforts

Industry Sources Say Embassy, DOE Helpful

Representatives of 5 of the 10 companies we interviewed said they had received some help with their activities in Kazakhstan from the U.S. government.[1] This help was primarily in the form of meetings with the U.S. Ambassador in Almaty.

All five companies praised the Ambassador as being actively involved in trying to assist U.S. companies. According to one company representative, "We have operations all over the world. Usually we avoid dealing with U.S. embassies, but our embassy in Almaty has been extremely helpful." For example, the Ambassador has suggested names of Kazakhstani officials company representatives might want to contact. He has also hosted monthly business roundtables where U.S. businessmen and Kazakhstani officials have a chance to meet, and U.S. participants receive practical information on how to hire local nationals and complete other necessary tasks. At a June 1993 roundtable attended by over 50 U.S. company representatives, Kazakhstan's Deputy Minister of Energy discussed a major oil exploration initiative.

Several company representatives mentioned that their firms' activities in Kazakhstan have also been facilitated by DOE, which organized an oil and gas conference in Almaty in November 1992. About 100 Kazakhstani officials, 60 U.S. businessmen, and 18 U.S. government officials participated in the 4-day event. The conference was led by a Deputy Assistant Secretary for Export Assistance at DOE who has since returned to work in the oil industry. One company official suggested that the former Deputy Assistant Secretary be replaced by another individual from the private sector with similar experience and capabilities.

Assistance Offered by Commerce Department, Trade and Development Agency

In August 1993, the Commerce Department sent its first U.S. and Foreign Commercial Service officer to Almaty. The officer speaks Russian and is familiar with the oil industry, having previously worked for a petroleum company. The Commerce Department will also be opening an American Business Center in Almaty in early 1994. The center, along with similar offices to be opened in other cities in the former Soviet Union, will provide U.S. companies with short-term office and exhibition space, market research and counseling, interpretation and translation services, telecommunications and computer equipment, and secretarial services. In addition, the center is to help U.S. companies cultivate contacts with local firms.

[1]None of the companies we interviewed indicated that they had asked for help but not received any.

In Washington, D.C., the Commerce Department runs a Business Information Service for the Newly Independent States of the former Soviet Union. This service provides information on Kazakhstan and the other countries of the former Soviet Union to U.S. individuals and firms seeking to invest in the region or to export goods and services there. For example, the service maintains a computer bank with a capacity of up to 5,000 documents. The documents can be accessed by phone and received by fax. The information available includes trade and investment leads, upcoming trade events, market data, and a breakdown of U.S. trade with Kazakhstan and other countries. The office is staffed by Commerce Department officials who can provide customized assistance to U.S. firms.

The Trade and Development Agency (TDA), which funds feasibility studies, has provided partial funding for a study of a coal-mining project in eastern Kazakhstan. Funding is currently being considered for several other projects. One U.S. company, which provides oil refinery equipment and services, benefited from TDA involvement without TDA having to pay any money. According to TDA's Regional Director for the Newly Independent States, a Japanese firm that had been awarded a contract for an oil refinery project approached the U.S. company after TDA had offered to fund a feasibility study on the project. The Government of Kazakhstan was impressed that the U.S. Ambassador had made a pitch for the U.S. company in conjunction with the TDA offer when the company was competing with the Japanese for the contract. As a result, the Kazakhstanis encouraged the Japanese to include the U.S. company in the project.

Role of OPIC and Eximbank

Both the Overseas Private Investment Corporation (OPIC) and the U.S. Export-Import Bank (Eximbank) provide assistance for U.S. activities in Kazakhstan.

On May 19, 1992, former President Bush and the Kazakhstani President signed an agreement approving OPIC assistance for activities in Kazakhstan. OPIC provides three basic services: political risk insurance, project financing, and investment development.[2]

[2]Political risk insurance provides coverage against currency inconvertibility (unless the currency is not convertible to hard currencies to begin with), expropriation, war, and revolution. Project financing involves direct loans of $500,000-$6 million to small businesses, and a loan guarantee program of up to $100 million for larger businesses. OPIC will fund up to 50 percent of a new project and up to 75 percent of an expansion. Investment development includes advisory services, a computerized databank matching projects with investors, feasibility study funding, and investment missions to selected countries.

In December 1993, OPIC signed two agreements for oil and gas projects in Kazakhstan. In one, OPIC will provide up to $3 million in political risk insurance for a company that provides oil drilling services. In the other, it will provide up to $100 million in insurance and financing for an independent oil and gas exploration and development company to begin work in western Kazakhstan south of the Tengiz field.

In addition, as of December 17, 1993, 37 potential applicants for OPIC insurance involving projects in Kazakhstan, representing $1.78 billion in potential investment, had "registered" with OPIC. (Companies are required to "register" by filing an application indicating their interest in OPIC insurance before they formally apply for insurance and make an irreversible commitment to invest.) Just over one-fourth of the registrations, representing 84 percent of the value of the potential investments, involve oil and gas projects.

Eximbank offers short-term and medium-term export credit insurance, and medium- and long-term loans and guarantees. Eximbank also offers a service called "limited recourse project financing." Loans under this type of financing are secured and repaid from the cash flow of the project rather than the guarantee of the government or of other parties. Currently, Eximbank offers only short-term insurance (180-360 days) and limited recourse project financing for Kazakhstan.

Eximbank has also indicated its willingness to consider an Oil and Gas Framework Agreement with Kazakhstan similar to the one recently entered into with Russia. Under such an agreement, Eximbank would provide guarantees and, under limited circumstances, loans, backed by the collateral (e.g., hard currency from oil exports) of commercial entities in Kazakhstan.

As of September 24, 1993, Eximbank had approved seven transactions representing about $57 million for short-term insurance, and two other applications were pending. The applications involved factories, pharmaceuticals, mining, meat-processing, and other industries, but did not include any oil or gas projects. Three applications were pending for limited recourse project financing, all of which involved the petroleum industry. One application concerned the pipeline to be built from the Tengiz oil field to the Black Sea; another, a refinery upgrade; and the third, the purchase of U.S. oil field equipment.

Industry Comments

When asked how the U.S. government could better facilitate investment in Kazakhstan, four of the oil industry representatives we interviewed voiced criticisms and suggestions.

For example, representatives from two companies criticized OPIC's application process as cumbersome. A representative from one company stated that "OPIC's forms are so complicated that it's not worth it to fill them out." A representative from a second company said that, although OPIC has an agreement with Kazakhstan, it is difficult for companies to qualify for OPIC assistance in the former Soviet Union because the agency is very conservative in approving eligible projects.

In August 1993, OPIC stated that it was ready to provide up to $2.5 billion in new loans, loan guaranties, equity, and insurance within the coming year to support U.S. private investment projects in the former Soviet Union. With regard to the comments on its application process, OPIC referred us to several oil companies that had already received OPIC assistance for projects in Russia. With a few exceptions, these companies generally described their dealings with OPIC in positive terms.[3]

The representative from the second company also criticized Eximbank's borrowing criteria as prohibitive. He complained that in order to qualify for Eximbank funding, his company would have to borrow much more than it needed. For example, he stated that Eximbank requires that a company borrow $50 million to qualify for project financing. He said his company would actually have to borrow $70 million to $80 million, since Eximbank only funds projects in conjunction with commercial lenders. The representative asserted that Eximbank should lower its minimum borrowing levels to $10 million to $20 million, which he said would be about the right amount for a pilot project, even for a major oil company.

In response to these comments, Eximbank's Senior Vice President for International Lending said that Eximbank does not require that a company be funded by a commercial or any additional lender. What it requires is that the company have at least 25-percent equity in the project, i.e., that it can only borrow up to 75 percent of the project's cost. The Eximbank official explained that the reason for the equity requirement is that a cushion of cash is needed for common problems, such as cost overruns and delays.

[3]One of the companies, a small independent firm, characterized OPIC's application process as "straightforward." Another, much larger firm, described the agency as "flexible and cooperative," with a "commercial, businesslike attitude." A third, however, stated that the application form for insurance was "cumbersome" and repetitious and that there had been some initial communication problems regarding financing terms.

The company representative emphasized that Eximbank funding is important, since it provides a measure of political security. He stated that a country like Kazakhstan is less likely to change its laws, contracts, or conditions on a company that received U.S. government assistance, since doing so might jeopardize further U.S. assistance.

With regard to other issues, a representative from a third company stated that the U.S. government should streamline the visa application process for Kazakhstani officials seeking to come to this co' ntry. He and the representative from the first company also advocated that the government address any remaining export control restrictions on computer-related equipment and items used to locate and extract oil.

In addition, the first company representative argued that U.S. tax policies make it hard to hire U.S. nationals overseas, whereas the Japanese, Germans, British, and French do not tax their expatriates. This policy, he said, makes it expensive to hire an American and send him or her abroad. He pointed out that if a U.S. company hires a European instead, the European will have a tendency to design systems for European equipment.

A representative from a fourth company suggested that the U.S. government tie its aid in Kazakhstan to U.S. projects. He said that some European governments see strategic reasons for backing European oil and gas companies in Kazakhstan. For example, he said, the United States can give $2 million to a Kazakhstani entity, or it can give $2 million to a Kazakhstani entity working with a U.S. company. This company spokesman added that the United States should follow the example of its European competitors by having high-level government officials meet with their Kazakhstani counterparts to endorse doing business with U.S. companies.

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