

The seal of the Office of the Special Inspector General for Iraq Reconstruction is a large, circular emblem in the background. It features an eagle with wings spread, perched on a shield with vertical stripes. The eagle is surrounded by a wreath. The text "INSPECTOR GENERAL" is written in English at the top and in Arabic at the bottom. The words "RECONSTRUCTION" and "IRAQ" are also visible in the circular border.

**COST, OUTCOME, AND OVERSIGHT OF  
IRAQ OIL RECONSTRUCTION  
CONTRACT WITH KELLOGG BROWN  
& ROOT SERVICES, INC.**

**SIGIR-09-008**

**JANUARY 13, 2009**



# SIGIR

Special Inspector General for IRAQ Reconstruction

## Summary of Report: SIGIR-09-008

### Why SIGIR Did This Study

Public Law 108-106, as amended, requires that the Special Inspector General for Iraq Reconstruction (SIGIR) prepare a final forensic audit report on amounts appropriated or otherwise made available for the reconstruction of Iraq. To fulfill this requirement, SIGIR has undertaken a series of audits examining major Iraq reconstruction contracts. The objective of these audits is to examine contract outcome, cost, and oversight, emphasizing issues related to vulnerabilities to fraud, waste, and abuse.

This report is the ninth in the series of focused contract audits. It examines reconstruction work contracted for by the U.S. Army Corps of Engineers and performed by Kellogg Brown & Root Services, Inc. (KBR), related to rebuilding the southern portion of the Iraqi oil infrastructure. This contract was competitively awarded in January 2004.

### What SIGIR Recommends

SIGIR recommends that the U.S. Ambassador, Iraq, direct the Economic Section of the Embassy to examine whether the Government of Iraq is properly maintaining the oil projects built by KBR. If it is not, SIGIR recommends that the Ambassador direct the Economic Section of the Embassy to propose an entity to develop and implement a strategy to facilitate proper training of Iraqi personnel to maintain the oil infrastructure.

### Management Comments

The U.S. Army Corps of Engineers, Gulf Region Division (GRD) generally agreed with the facts presented in the report. However, GRD raised concerns about the way certain facts were presented and characterized. GRD and the U.S. Department of State, Bureau of Near Eastern Affairs, also provided technical comments on a draft of this report, which were incorporated into this report as appropriate.

For more information, contact SIGIR Public Affairs at (703) 428-1100 or [PublicAffairs@sigir.mil](mailto:PublicAffairs@sigir.mil)

January 13, 2009

## Cost, Outcome, and Oversight of Iraq Oil Reconstruction Contract with Kellogg Brown & Root Services, Inc.

### What SIGIR Found

In January 2004, KBR was awarded a \$1.2 billion cost-plus contract for oil projects in southern Iraq. KBR's work under this contract cost \$722.3 million and was performed under 30 different task orders, which included support services and direct construction-related tasks. Although KBR accomplished much under the contract, the various tasks took longer than planned; were frequently modified, scaled back, and/or terminated; and increased in cost over time. SIGIR identified these key factors affecting contract cost and outcomes:

- High-value task orders were frequently modified to extend periods of performance, increase funding, or change the scope of work.
- Significant numbers of task orders were terminated for the convenience of the government because of funding limitations, cost overruns, failure to reach agreement on costs, changing requirements, and other factors.
- Support task orders were frequently changed and ultimately consumed more than a third of contract costs.
- Pre-award looting, post-award security issues, and inadequate pre-war maintenance of the facilities were major factors increasing contract costs.

A recurring theme within this contract was the large number of modifications made to individual task orders, indicative of the lack of specificity associated with initial contract requirements. SIGIR identified concerns that Iraq may not be properly maintaining oil facilities built by KBR.

Contract oversight suffered from the lack of continuity of oversight personnel. Since January 2004, 13 government contracting officers have served an average of 4 months each. KBR did not adhere to cost and schedule goals and did not produce required oversight reports. The Defense Contract Audit Agency found weaknesses in KBR's management control systems. In January 2007, the government's contracting officer expressed concern about the use of substandard piping material and a fraudulent material certification by one of KBR's suppliers. This matter has been referred to SIGIR's investigations unit for consideration.

### Conclusions

The lack of security, the absence of protection against infrastructure looting, and poor pre-war maintenance were the major contributors to the cost of this contract. What KBR improved was better than the pre-war facilities, but unless the Government of Iraq completes what KBR started and maintains what it provided, the value of KBR's effort will be diminished and possibly lost. This and other SIGIR audits have identified the importance of preparing the Government of Iraq for assuming responsibility for the assets transferred to it and highlight the need to ensure unity of effort among responsible U.S. agencies.

Special Inspector General for Iraq Reconstruction

January 13, 2009

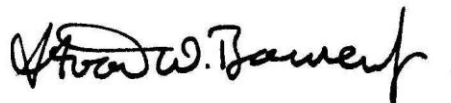
MEMORANDUM FOR U.S. AMBASSADOR TO IRAQ  
DIRECTOR, IRAQ TRANSITION ASSISTANCE OFFICE  
COMMANDER, JOINT CONTRACTING COMMAND –  
IRAQ/AFGHANISTAN  
COMMANDING GENERAL, MULTI-NATIONAL SECURITY  
TRANSITION COMMAND–IRAQ  
COMMANDING GENERAL, GULF REGION DIVISION,  
U.S. ARMY CORPS OF ENGINEERS

SUBJECT: Cost, Outcome, and Oversight of Iraq Oil Reconstruction Contract with Kellogg  
Brown & Root Services, Inc. (SIGIR-09-008)

We are providing this audit report for your information and use. It discusses the review by the Special Inspector General for Iraq Reconstruction (SIGIR) of contract W9126-04-D-0001 awarded to Kellogg Brown & Root Services, Inc., for reconstruction of Iraq's oil infrastructure. The review was conducted as SIGIR Project 8003. Public Law 108-106, as amended, requires that SIGIR prepare a final forensic audit report on amounts appropriated or otherwise made available for the reconstruction of Iraq. To fulfill this requirement, SIGIR is undertaking a series of audits examining major Iraq reconstruction contracts. The objective of these audits is to examine contract cost, outcome, and oversight, emphasizing issues related to vulnerabilities to fraud, waste, and abuse.

We considered comments from the U.S. Army Corps of Engineers, Gulf Region Division when preparing the final report. The comments are addressed in the report, where applicable, and a copy is included in the Management Comments section of this report. We also received technical comments from the Department of State, Bureau of Near Eastern Affairs which were incorporated into the report, as appropriate.

We appreciate the courtesies extended to our staff. For additional information on this report, please contact Glenn Furbish at (703-428-1058 / [glenn.furbish@sigir.mil](mailto:glenn.furbish@sigir.mil)).



Stuart W. Bowen, Jr.  
Inspector General

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## **Cost, Outcome, and Oversight of Iraq Oil Reconstruction Contract with Kellogg Brown & Root Services, Inc.**

**SIGIR-09-008**

**January 13, 2009**

# **Executive Summary**

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## **Introduction**

Public Law 108-106, as amended, requires the Special Inspector General for Iraq Reconstruction (SIGIR) to prepare a final forensic audit report on amounts appropriated or otherwise made available for the reconstruction of Iraq. To fulfill this requirement, SIGIR has undertaken a series of audits examining major contracts for Iraq reconstruction. The objective of these audits is to examine contract cost, outcome, and oversight, emphasizing issues related to vulnerabilities to fraud, waste, and abuse.

This report is the ninth in the series of focused contract audits. It examines reconstruction work contracted for by the U.S. Army Corps of Engineers (USACE) and performed by Kellogg Brown & Root Services, Inc. (KBR), related to rebuilding the southern portion of Iraq's oil infrastructure. This contract was competitively awarded in January 2004 (contract W9126G-04-D-0001).

## **Results**

Although this contract initially had a not-to-exceed amount of \$1.2 billion for the life of the contract, actual costs under the contract totaled about \$722.3 million, pending adjustments based on contract close-out. Approximately \$562.7 million came from the U.S.-appropriated Iraq Relief and Reconstruction Fund (IRRF), and \$159.6 million came from the Iraqi's Development Fund for Iraq.<sup>1</sup>

Of 30 task orders under the contract, 6 covered support costs totaling \$241.3 million, or 33.4% of contract costs; 24 others were for various purposes, including construction projects totaling \$481.0 million. Although KBR accomplished much under the contract, the various tasks took longer than planned; were frequently modified, scaled back, and/or terminated; and increased in cost over time. SIGIR identified these key factors affecting contract costs and outcomes:

- High-value task orders were frequently modified to extend periods of performance, increase funding, or change the scope of work.

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<sup>1</sup> The contract and task order amounts shown throughout this report reflect the obligations incurred rather than expenditures. Additional expenditures will likely occur as the task orders and contract are closed out. Obligations reflect the costs the government expects to incur on this contract.

- Significant numbers of task orders were terminated for the convenience of the government because of funding limitations, cost overruns, failure to reach agreement on costs, changing requirements, and other factors.
- Support task orders changed frequently.
- Pre-award looting, post-award security issues, and inadequate pre-war maintenance of the facilities were major factors increasing contract costs.

The USACE Gulf Region Division (GRD) commented that “Pre-award looting, post-award security issues, and inadequate pre-war maintenance of the facilities, combined with limited pre-existing knowledge of the state of those facilities were **the** (emphasis added) major factors increasing contract costs.”

Two themes recurred throughout this project. First, a large number of modifications were made to individual task orders, which indicates that the initial contract requirements lacked specificity. Second, uncertainties continued about requirements over time.

U.S. contracting officials have expressed concern that the Government of Iraq (GOI) may not be properly maintaining the rebuilt facilities and equipment that cost hundreds of millions of dollars in U.S.-appropriated IRRF money. And the GOI does not appear to be committed to completing and using some projects. For example, KBR restored some natural gas liquid and liquefied petroleum gas plants in southern Iraq at a cost of \$146.7 million. At the conclusion of the task order, rotors for a turbine gas compressor remained to be installed at one plant. The rotors were delivered to the Iraqi government and stored in an Iraqi warehouse; however, the Iraqis reportedly have not yet installed the rotors. As a result, gas production at the plant is below goal, and a portion of the U.S. investment is being wasted.

The scale and complexity of the rebuilding of the oil infrastructure was challenging to government contract oversight officials and required use of a contractor to help provide program management support. Also, contract oversight suffered from the lack of continuity of contracting officials. Since January 2004, 13 government contracting officers have served an average of 4 months each.

The government criticized KBR for its inability to adhere to cost and schedule goals and produce oversight reports required by the contract and also identified weaknesses in KBR’s cost information data, estimating system controls, and purchasing system controls. Further, in January 2007, the government’s contracting officer expressed concern about the use of substandard piping material and a fraudulent material certification by one of KBR’s suppliers. Although KBR’s Quality Control Plan called for the piping material to be inspected by a quality assurance/quality control inspector, the material was inspected and accepted by a KBR receiving clerk. Contract files show that KBR referred the matter to the U.S. Army Criminal Investigation Division, but SIGIR found no record of any investigation of this matter and has referred the incident to its investigations unit for consideration.

Although the contract provided an award-fee plan in which KBR could earn a maximum of 3% of the negotiated estimated cost of the task orders based on its performance, it earned only about 25% of the amount it could have earned under this contract.

## **Conclusions**

The lack of security, the absence of protection against infrastructure looting, and poor pre-war maintenance were the major contributors to the increased cost of this contract. What KBR rebuilt improved pre-war facilities, but unless the GOI completes what KBR started and maintains what it provided, the value of the U.S. reconstruction effort will be diminished and possibly lost. This report and other SIGIR audits have identified the importance of properly preparing the GOI to assume responsibility for assets the United States transfers to GOI and highlight the need to ensure unity of effort among responsible U.S. agencies.

## **Recommendations**

SIGIR recommends that the U.S. Ambassador to Iraq take these actions:

1. Direct the Economic Section of the Embassy to examine the extent to which the Government of Iraq is properly maintaining oil projects built by KBR.
2. If the Economic Section of the Embassy concludes that project maintenance is lacking, direct the Economic Section of the Embassy to propose an entity to develop and implement a strategy to facilitate proper training of Iraqi personnel in project maintenance.

## **Lessons Learned**

The United States undertook reconstruction projects in Iraq in an unstable security environment, beset by funding uncertainties and time constraints. These conditions made it difficult to accomplish pre-award planning, define project requirements, and oversee contractor performance. Nevertheless, fundamental elements of contract and project management and oversight should be accomplished to the extent possible. SIGIR identified a number of lessons that U.S. government organizations could apply to future reconstruction projects in a contingency environment, including:

- In a war zone, the immediate protection of existing infrastructure is key to avoiding looting, which significantly increases reconstruction costs.
- If materials provided by contractors are inspected by a receiving clerk and not by a qualified quality assurance/quality control inspector, the risk of product substitution and fraud increases.
- Stability and continuity in oversight personnel is important to effective contract oversight.

## **Management Comments and Audit Response**

GRD provided written comments on a draft of this report. Overall, GRD agreed with the facts as presented in the report. However, it believes that the report fails to emphasize the environment

in which most of the contracting activity occurred and suggests that SIGIR presents every contract task order change, modification, or adaptive technique as an improper deviation from normal contracting practice.

SIGIR believes that it has clearly noted throughout the report the challenging security environment that existed during the execution of this contract and the high cost of security protection. Also, each of these points is prominently addressed in the conclusions and lessons learned sections of this report. Further, SIGIR discussed the frequent contract task order modifications and changes to highlight the high degree of uncertainty that existed at the time. SIGIR in no way suggests or implies that these were “improper deviations from normal contracting practice.” SIGIR recognizes that there were “fact of life” conditions that presented enormous challenges to clearly defining the scope of the work to be done both initially and during contract execution. However, SIGIR notes that in “normal contracting practice” the goal is to clearly define the work to be done to minimize the number of contract modifications, which by their nature tend to be non-competitive changes.

Regarding SIGIR’s draft recommendation to ascertain the condition of the facilities built by KBR and turned over to the GOI, GRD stated that its responsibility for project execution concludes upon turnover of the facilities and that it retains no responsibility for the long-term maintenance or use of these facilities. Based on this comment and comments from the U.S. Department of State, Bureau of Near Eastern Affairs, SIGIR revised the final recommendation to reflect the current U.S. organizational responsibilities for working with the GOI on oil infrastructure sustainability issues.

GRD also provided technical comments on a draft of this report, which were incorporated in this report as appropriate.

Further, the U.S. Department of State, Bureau of Near Eastern Affairs, provided technical comments, which were incorporated in this report as appropriate.



# Introduction

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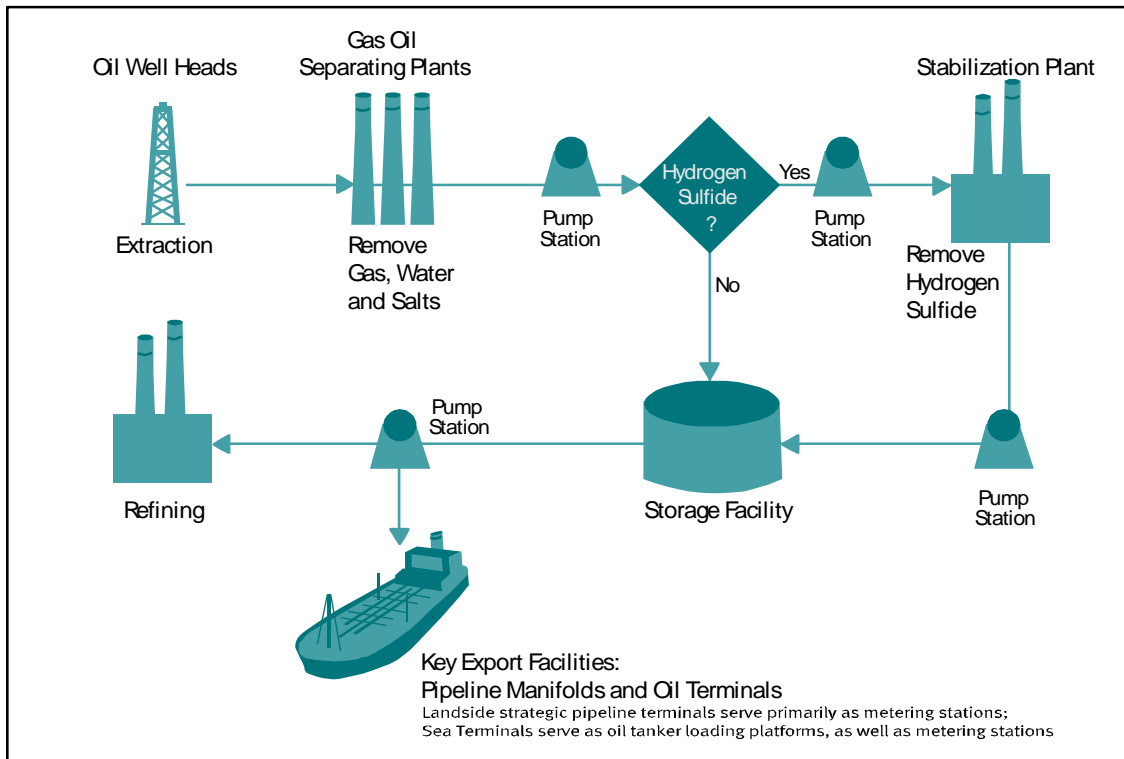
Public Law 108-106, as amended, requires that the Special Inspector General for Iraq Reconstruction (SIGIR) prepare a final forensic audit report “on all amounts appropriated or otherwise made available for the reconstruction of Iraq.” To fulfill this requirement, SIGIR has undertaken a series of audits examining major Iraq reconstruction contracts. The objective of these audits is to examine contract cost, outcome, and management oversight, emphasizing issues related to vulnerabilities to fraud, waste, and abuse. This report, the ninth in the series, examines reconstruction work performed by Kellogg Brown & Root Services, Inc. (KBR), for reconstruction of the Iraq oil infrastructure in the southern part of Iraq under a contract awarded in January 2004 (contract W9126G-04-D-0001). This contract had an estimated not-to-exceed amount of \$1.2 billion for the life of the contract with a guaranteed minimum of \$500,000.

## Background

Iraq has two major oil regions: the southern region and the northern region. At the time of the United States’ entry into Iraq in March 2003, the southern region consisted of 12 producing oil fields and the northern region consisted of 10 producing oil fields and two producing gas fields. The Rumalia fields in the south and the Kirkuk fields in the north produced approximately 70% of the country’s crude oil and natural gas production.

Iraq’s oil infrastructure comprised an integrated system of oil fields, pipelines, gas-oil separation plants, refineries, processing and stabilization plants, water and electrical power utilities, and distribution terminals. Elements of the infrastructure must work in concert to create a balanced, interdependent operation. Water is a key resource for oil production and is used to wash the salt from the crude and to inject it into the underground reservoir for pressure maintenance. This is accomplished through water treatment plants. Figure 1 displays how oil is processed.

**Figure 1—How Oil is Processed**



Source: Multi-National Force—Iraq.

In March 2003, the U.S. Army Corps of Engineers (USACE) issued a sole-source contract to KBR to restore Iraq’s oil infrastructure.<sup>2</sup> However, in January 2004, it replaced this contract with two competitively awarded contracts<sup>3</sup>—one for work in southern Iraq and one for work in northern Iraq. The KBR contract was a cost-plus-award-fee Indefinite Delivery Indefinite Quantity contract whereby work to be performed by KBR would be identified by the use of individual task orders.<sup>4</sup> Figure 2 represents the boundaries of the work under the KBR contract.

<sup>2</sup> SIGIR reviewed this contract as part of a review of sector design-build construction contracts. See *Award of Sector Design-Build Construction Contracts*, SIGIR Report Number 04-005, July 23, 2004.

<sup>3</sup> A cost-plus-award-fee contract is in the cost-reimbursement category but is distinguished by a special fee provision that allows the government to unilaterally vary the amount of award fee paid based on its evaluation of the contractor’s performance.

<sup>4</sup> Indefinite Delivery Indefinite Quantity contracts are used when exact quantities of supplies or services to be obtained through a contract cannot be precisely determined. Task orders are then issued as more detail becomes available.

**Figure 2—Boundaries of the KBR Contract (lower section)**



*Source: SIGIR, based on data from the KBR contract.*

**Note:** The geographic area for the proposed KBR work is the area south of and excluding the towns of Ruwayshid on the west, through Ar Rutbah, through Al Muhammadi, and through Al Khalis to Tolafarush on the east.

The contract requirements were broadly stated and required KBR to

- establish management infrastructure
- establish initial facility operational control
- fight oil well fires
- respond to oil spills
- provide logistics support to the government
- perform emergency restoration of oil systems
- manage oil reservoir
- provide internal distribution and sales of refined product
- repair the oil system
- start up and operate the oil system
- repair product systems (gas, refining)
- start up and operate product systems

Since the KBR contract was awarded in January 2004, several U.S. government organizations have been responsible for administering, managing, and overseeing the KBR contract. The

Coalition Provisional Authority was established in May 2003 as a temporary governing entity to provide for the administration of Iraq during the transition to a new government. The Authority created the Program Management Office to award and administer Iraq reconstruction contracts. When the Authority disbanded in June 2004, the United States continued providing reconstruction assistance and policy guidance to the interim Iraqi government through its embassy in Baghdad.

National Security Presidential Directive 36 established the Iraq Reconstruction Management Office within the embassy to coordinate previous Coalition Provisional Authority assistance efforts. The directive also created the Project and Contracting Office, a temporary organization within the Department of Defense (DoD), to provide acquisition and project management support in Iraq. The Project and Contracting Office became the successor organization to the former Coalition Provisional Authority's Program Management Office. The Project and Contracting Office merged with the Gulf Region Division of USACE in December 2005. The Gulf Region Division was activated in January 2004 and consolidated under one command different USACE activities operating in Iraq, including those of the Task Force Restore Iraqi Oil. As Iraq reconstruction began, a new joint in-theater contracting entity, the Joint Contracting Command—Iraq/Afghanistan, was created to coordinate contract actions.

In March 2003, DoD had designated the USACE as Executive Agent for implementing plans to extinguish oil well fires and to assess the damage to oil facilities during Operation Iraqi Freedom. This responsibility was given to the USACE, which established Task Force Restore Iraqi Oil to restore the capability for oil production, oil refining, and gas processing to pre-war conditions.

To assist in overseeing reconstruction, in March 2004, the U.S. government contracted with various private firms to oversee the various reconstruction sectors. These firms were called Sector Project and Contracting Office Contractors. They were under a separate government contract to provide project support to the government's Project and Contracting Office. The support contractor for the oil sector, Foster-Wheeler Energy Limited, was selected for the contract in part because of its expertise with the repair and maintenance of facilities, equipment, and infrastructure within the oil-producing industry.

While KBR's work was to help restore Iraq's overall oil production to pre-war levels of about 3 million barrels per day, this goal has not been achieved. As of November 19, 2008, the State Department was reporting Iraq's oil production level at 2.40 million barrels per day. According to a U.S. Department of State, Bureau of Near Eastern Affairs official, the 3 million barrels per day was a Coalition Provisional Authority target that was not continued under the Department of State.

## **Objectives**

SIGIR's reporting objectives are to (1) determine KBR's contract cost and outcome and (2) review contract management oversight and controls, emphasizing vulnerabilities to fraud, waste, and abuse. This report also addresses issues associated with the transfer of completed projects to the Government of Iraq. For a discussion of our audit scope and methodology and a summary of prior coverage, see Appendix A. For acronyms used, see Appendix B. For audit team members, see Appendix C. For management response to a draft of this report, see Appendix D.

# Contract Cost and Outcome

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This contract, with work totaling \$722.3 million,<sup>5</sup> was performed under 30 different task orders. Those task orders included a sizeable number of support services as well as direct construction-related tasks. While much was accomplished under the contract, the various tasks took longer than planned; were frequently modified, scaled back, and/or terminated; and increased in cost over time. SIGIR identified the following as key factors affecting contract cost and outcome:

- High-value task orders were frequently modified to extend periods of performance, increase funding, or change the scope of work.
- Significant numbers of task orders were terminated for the convenience of the government due to funding limitations, cost overruns, failure to reach agreement on costs, changing requirements, and other factors.
- Support task orders also underwent frequent change and ultimately consumed over a third of contract costs.
- Pre-award looting and post-award security issues, as well as inadequate pre-war maintenance of the facilities, were major factors increasing contract costs.

The U.S. Army Corps of Engineers, Gulf Region Division commented that “Pre-award looting, post-award security issues, and inadequate pre-war maintenance of the facilities, combined with limited pre-existing knowledge of the state of those facilities were **the** (emphasis added) major factors increasing contract costs.”

A recurring theme in most of these factors was the large number of modifications made to individual task orders, indicating a lack of specificity associated with contract requirements initially and continuing uncertainties regarding requirements over time.

## Contract Cost and Funding

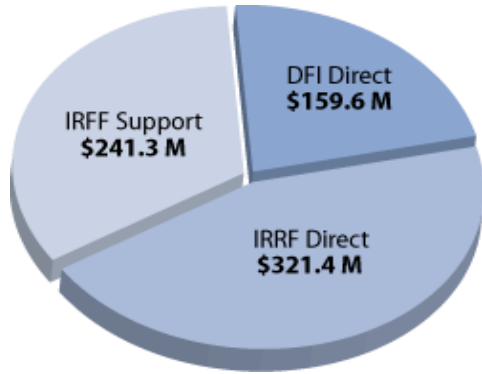
While this contract had a not-to-exceed amount of \$1.2 billion for the life of the contract, actual costs under the contract totaled about \$722.3 million, pending adjustments based on contract close-out. Approximately \$562.7 million came from the U.S.-appropriated Iraq Relief and Reconstruction Fund, and \$159.6 million from the Iraqi’s Development Fund for Iraq.

Of the thirty task orders under the contract, six covered support costs totaling \$241.3 million; 24 others were for various purposes, including construction projects totaling \$481.0 million. Figure 3 depicts the division of costs among the two funding streams.

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<sup>5</sup> The contract and task order amounts shown throughout this report reflect the obligations incurred rather than expenditures. Additional expenditures will likely occur as the task orders and contract are closed out. Obligations reflect the costs the government expects to incur on this contract.

**Figure 3—Costs for Support and Construction-Related Task Orders**



Source: SIGIR review of contract files and data from the Corps of Engineers Financial Management System.

Note: IRRF is Iraq Relief and Reconstruction Fund; DFI is Development Fund for Iraq

## Task Orders and Related Work

As noted earlier, the implementation of the contract was accomplished through 30 task orders issued against the basic contract, as described in Table 1. Six of the task orders (depicted with italics) were related to support costs such as initial mobilization, life support, security, and transportation. The remaining tasks were more directly related to construction.

**Table 1—Task Orders and Description of Work (Costs as of 9/30/2008)**

Task Order	Description of Work	Cost (\$ Millions)	Percent of Total Costs
01 – Transition Planning; Fuel Import and Delivery	Develop and implement a transition plan for the procurement, import, and delivery of refined fuel products for distribution within the southern sector of Iraq.	-	-
<i>02 – Initial Mobilization</i>	<i>Mobilize, prepare for operations in Iraq, and provide life support and security.</i>	\$10.62	1.5%
03 – Fuel for Generators at Qudas Power Plant	Provide fuel for generators at the Qudas Power Plant near Baghdad.	-	-
04 – Fuel Import and Delivery to Iraq	Purchase and deliver benzene, kerosene, diesel, and liquefied petroleum gas to selected points in Iraq.	146.72	20.3%
<i>05 – Life Support, South Camp</i>	<i>Provide life-support services for government and contractor personnel.</i>	8.60	1.2%

06 – Fuel for Generators at Qudas Power Plant	Provide fuel for the generators at Qudas Power Plant (East Baghdad Field).	0.10	-
07 – South Oil Company Central Power	Create an isolated portion of the 132kv Ministry of Electricity grid in southern Iraq.	12.09	1.7%
<b>08 – Restore Qarmat Ali Water Injection</b>	<b>Restore the Qarmat Ali Water Injection Project in southern Iraq to return Iraqi oil production.</b>	26.20	3.6%
09 – Provide Power Generation to the Daura Refinery	Provide power generation to the Daura Refinery near Baghdad.	1.15	0.2%
10 – Restore Benzene Import Infrastructure	Restore the benzene import infrastructure at Khor Az Zubair Port, Liquefied Petroleum Gas Marine Terminal, and Oil Pipeline Company Shaibah.	0.67	0.1%
<b>11 – Restore Natural Gas Liquid and Liquefied Petroleum Gas Plants</b>	<b>Restore the natural gas liquid and liquefied petroleum gas plants in southern Iraq to increase capacity of Iraqi oil and gas production.</b>	146.67	20.3%
<b>12 – Restore Gas and Oil Separation Plants</b>	<b>Restore the Gas and Oil Separation plants in southern Iraq to full capacity.</b>	84.50	11.7%
13 – Restore Downstream Sector Projects	Restore infrastructure related to downstream sector projects in southern Iraq to full capacity.	5.10	0.7%
14 – <i>Transportation and Mobilization</i>	<i>Transport materials, goods, equipment, and mobilization in support of the contractor.</i>	44.11	6.1%
15 – <i>Management and Administration</i>	<i>Provide a continuation of services following the closeout of Task Orders 2 and 5 under the same contract.</i>	60.94	8.4%
16 – <i>Security</i>	<i>Provide security for operations in Iraq to include protection of KBR, subcontractors, other contractors, and U.S. government employees assigned to KBR.</i>	64.15	8.9%
17 – <i>Life Support</i>	<i>Provide for life-support functions (meals, laundry, water, supplies, housing, and operation and maintenance for a safe and secure environment) for government and contractor personnel.</i>	52.91	7.3%



18 – Al Faw Peninsula Oil Control	Conduct site assessments; perform engineering analyses; prepare plans, procedures and specifications; procure materials, supplies, and equipment; and select qualified subcontractors and provide construction management of the oil export control infrastructure on the Al Faw Peninsula.	0.10	-
19 – Basra Oil Cleanup	Provide rapid removal of crude oil from large pool(s) in the vicinity of pipeline damage in the Basra area to facilitate repair of the pipeline by other entities.	0.09	-
<b>20 – Repair South Oil Company Gas Compressor Stations</b>	<b>Restore the South Oil Company’s compressor stations to support increased gas production.</b>	24.45	3.4%
21 – Restore South Oil Company Pump Stations	Restore pumping capacity in Iraq’s strategic oil pipeline to enhance supply to domestic refineries, thereby increasing production of refined products and decreasing imports, and to enhance oil export capacity.	1.78	0.2%
22 – Repair South Refining Company Miscellaneous Projects	Repair and upgrade the South Refining Company’s Basra Refinery to increase domestic production of refined products and reduce reliance on imports.	6.08	0.8%
23 – Procure Parts and Equipment for Oil Pipeline - Midland Refinery Company	Procure parts and equipment for the Oil Pipeline Company and Midland Refinery Company to increase reliability of their operations.	2.80	0.4%
24 – Pipeline Communications	Provide a pipeline communication system for the Oil Pipeline Company to enhance safety in its pipeline operations.	0.14	-
25 – Repair Ship Loading Arms – Al Basrah Oil Terminal	Assess and refurbish ship-loading arms at Al Basrah Oil Terminal to enhance crude oil export capacity.	0.01	-
26 – Repair and Upgrade Oil Pipeline Company Facilities	Repair and upgrade oil product pipelines and associated facilities operated by the Oil Pipeline Company to restore Iraq’s oil products distribution infrastructure to meet domestic demand.	10.63	1.5%
27 – Rehabilitate South Oil Company Workover Wells	Rehabilitate South Oil Company wells operated in southern Iraq and involve the South Oil Company and Iraqi Drilling Company personnel in the latest well-workover techniques; this will increase oil field production and thereby crude oil for export and for domestic production of refined products.	0.15	-

28 – Replace Destroyed and Looted Chemicals	Replace chemicals in refineries and gas plants that were destroyed or looted during and after combat, and procure and deliver chemicals vital to domestic production of refined products to reduce Iraq’s reliance on imported fuels.	7.01	1.0%
29 – Gulf Region South Life Support	Provide life support functions for government and contractor personnel assigned to the Gulf Region South Basrah Area Office.	2.88	0.4%
30 – Rehabilitate Khor Al Zubair Marine Terminal	Rehabilitate the pumps at the Khor Al Zubair terminal to allow for the importation and distribution of kerosene diesel and benzene.	1.65	0.2%
<b>Total</b>		<b>\$722.29</b>	<b>100.0%</b>

Source: Government contract files and Corps of Engineers Financial Management System.

**Notes:**

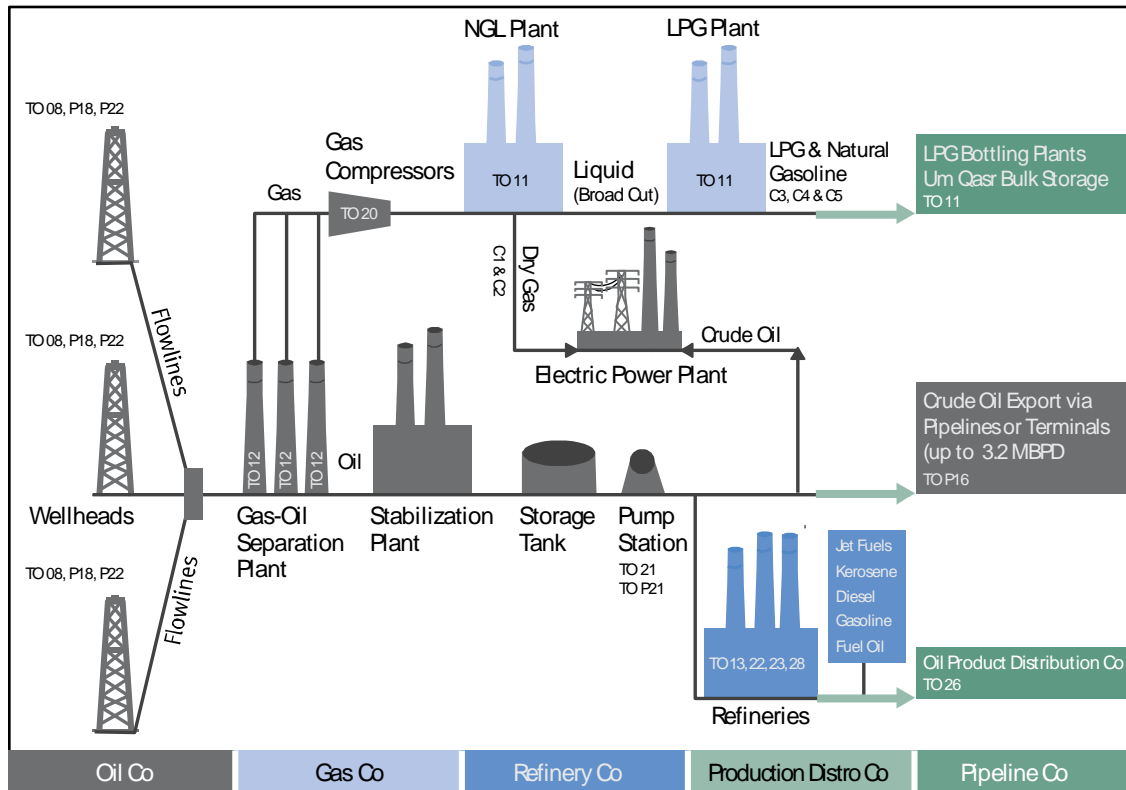
1. Task orders in bold indicate the more significant tasks associated with the reconstruction effort.
2. Task orders in italics are those related to providing support services rather than direct construction.

Of the various task orders enumerated above, four highlight key elements of reconstruction worked performed by KBR and their costs:

- Task order 8, costing \$26.2 million, was to restore the Qarmat Ali water injection facility. Around the end of 2007, KBR had completed the work at the Qarmat Ali Water Treatment Plant and eight water injection stations.
- Task order 11, costing \$146.7 million, was to restore Iraq’s natural gas liquid and liquefied petroleum gas plants. The task order was terminated. At the time of termination in May 2007, most work had been completed; however, work not completed limited production output.
- Task order 12, costing \$84.5 million, was for engineering and procurement related to reconstruction of 12 gas and oil separation plants. This work was completed between September 2005 and the end of 2006.
- Task order 20, costing \$24.4 million, was for compressor stations to increase liquefied petroleum gas production. KBR completed its work between September and April 2007. In addition to its engineering, procurement, and construction responsibilities, KBR also conducted operational and maintenance training for Iraqi personnel.

Figure 4 depicts the integrated oil and gas infrastructure and the relationship of the construction task orders to this infrastructure.

**Figure 4—Integrated Oil and Gas Infrastructure and the Relationship of the Construction Task Orders to this Infrastructure.**



Source: Multi-National Force—Iraq.

The task orders were initially issued in February 2004 with a not-to-exceed amount, and statements of work were generally broad because exact requirements were not known when they were issued. In fact, detailed requirements were not known well enough to develop a definitive scope of work due to the unique nature of the work taking place to reconstruct Iraq.

## High-Value Task Orders Frequently Modified to Allow for Cost Increases and Changing Requirements

Sixteen completed task orders to repair and restore oil and gas facilities and perform other work accounted for \$332.6 million, or 46.0%, of the total cost of the contract, of which \$159.2 million was paid from the Development Fund for Iraq, and \$173.4 million from the Iraq Relief and Reconstruction Fund, as shown in Table 2.

**Table 2—Cost of Completed Direct Task Orders and Funding Source**

<b>Task Order</b>	<b>Development Fund for Iraq</b>	<b>Iraq Relief and Reconstruction Fund</b>
03 - Qudas Pipeline	\$192	-
04 - Fuel Import and Delivery	146,717,761	-
06 - Fuel for Qudas Gens	98,495	-
07 - South Oil Company Central Power	-	\$12,086,761
08 - Qarmat Ali Water Injection	-	26,198,044
10 - Benzene Import Phase 1	666,078	-
12 - Gas and Oil Separation Plants	-	84,504,476
13 - Downstream Sector Projects	-	5,097,403
20 - Compressor Stations	-	24,448,451
21 - South Oil Company Pump Stations	-	1,784,311
22 - SRC Miscellaneous Projects	6,077,160	-
23 - Miscellaneous Parts and Equipment	2,797,686	-
26 - Distribution Oil Pipeline Company	-	10,625,292
28 - Chemicals	-	7,006,034
29 - Gulf Region South Life Support	2,883,616	-
30 - Rehabilitate Khor Al Zubair Marine Terminal	-	1,653,565
<b>Total</b>	<b>\$159,240,988</b>	<b>\$173,404,337</b>

Source: SIGIR analysis of Corps of Engineers Financial Management System data and contract files.

Note: Iraq Relief and Reconstruction Fund amounts are as of 9/30/2008. Development Fund for Iraq amounts are those reflected in government files at their definitized value as of 7/2007.

With the exception of Task Order 4 to import and deliver fuel to Iraq, paid for from the Development Fund for Iraq, and Task Order 11 to restore the natural gas liquid and liquefied petroleum gas plants and terminated (discussed later), Task Orders 8, 12, and 20 had the largest impact on costs to the United States. These three task orders were each modified more than 20 times.

## **Task Order 8 – Restoring Qarmat Ali Water Injection Facility**

Task Order 8 was issued on April 8, 2008, with a not-to-exceed cost estimate of \$5 million. It was subsequently modified 23 times, extending the period of performance and providing additional funds as well as deobligating excess funds from certain projects. The final cost of task order 8 was \$26.2 million when completed in December 2007. Ten water injection facilities service the South Rumaila and North Rumaila oil fields. These facilities inject treated water into

the immediate area of the oil wells to increase pressure in the oil field. The increased pressure causes oil and gas to flow out of the well heads without the need to use a pump. Task order 8 covered the repair of these water injection facilities, which were deemed critical to maintaining increased oil production without damaging the underground reservoirs. The main water injection facilities were originally designed by Soviet Union companies in the 1970s. Figures 5 and 6 show the Ramallah Water Injection Facility before and after repair.

**Figure 5—Ramallah Water Injection System Before Repair**



*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

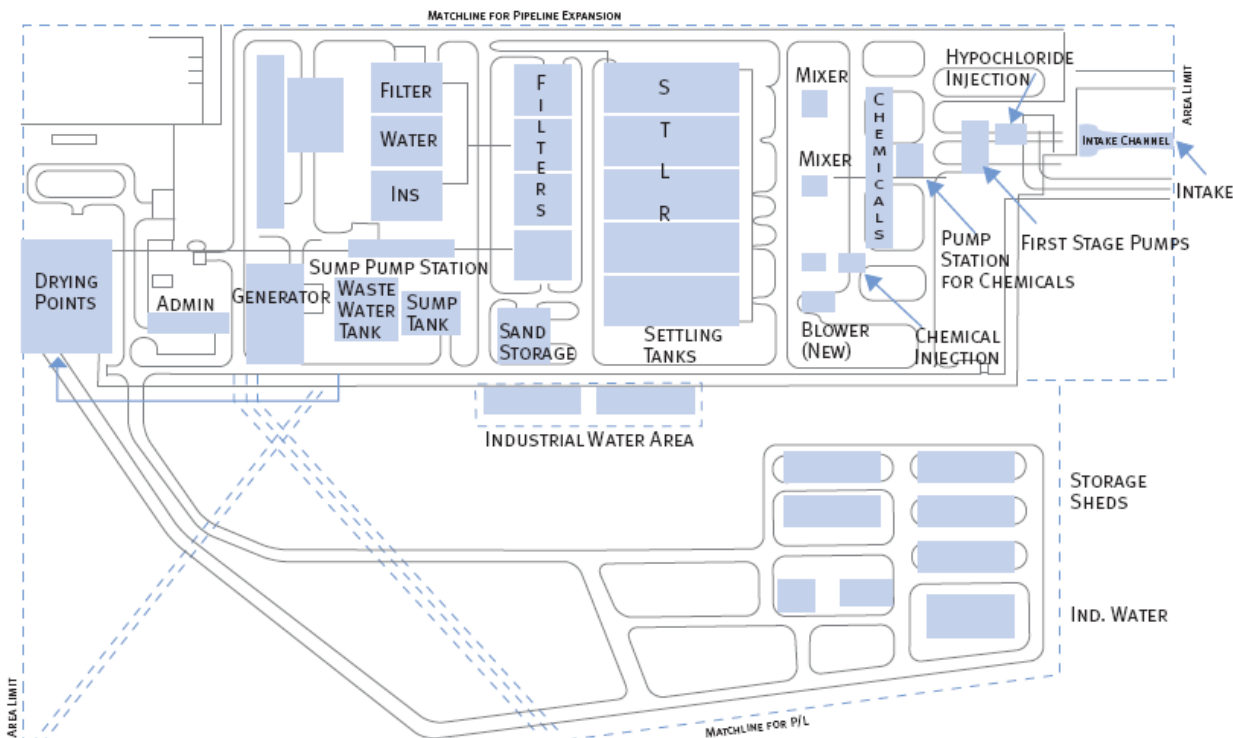
**Figure 6—Ramallah Water Injection System After Repair**



*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

Task Order 8 directed KBR to restore the Qarmat Ali Water Treatment Plant (see Figure 7) and eight water injection facilities that serviced the South and North Rumaila oil fields. This task order continued the work performed by KBR under its earlier 2003 contract. Many of the buildings, cluster pump stations, and other facilities were damaged due to looting during and after combat operations carried out under Operation Iraqi Freedom. Electrical, mechanical, and instrumentation items were also significantly damaged. Even equipment that was untouched by looting was judged in poor condition due to age, poor maintenance, and lack of spare parts.

**Figure 7: Qarmat Ali Water Treatment Plant**



Source: Joint Contracting Command-Iraq/Afghanistan contract files.

In June 2004, the government contracting officer expressed concern about KBR’s schedule delays. In a letter to KBR, the contracting officer stated that KBR’s failure to complete the task order was endangering the satisfactory and timely completion of the work and that unless addressed, task order 8 would be terminated for default. A key issue concerned KBR’s relationship with a subcontractor who was to furnish, install, commission, and start up portable gas turbine generators at Qarmat Ali Water Treatment Plant and at six pump stations. However, the subcontractor left the country in March 2004, jeopardizing the task order schedule. KBR was able to remobilize the subcontractor in July 2004. Further, according to a KBR progress report, “The restriction of Indian Nationals to cross the Kuwait/Iraq border initiated by the Indian Embassy has caused severe delays to the project as the Indian Electrical and Instrumentation Technicians are the major work force remaining for completion of the Cluster Pumping Stations and the start-up of the Gas Turbine Generators.”

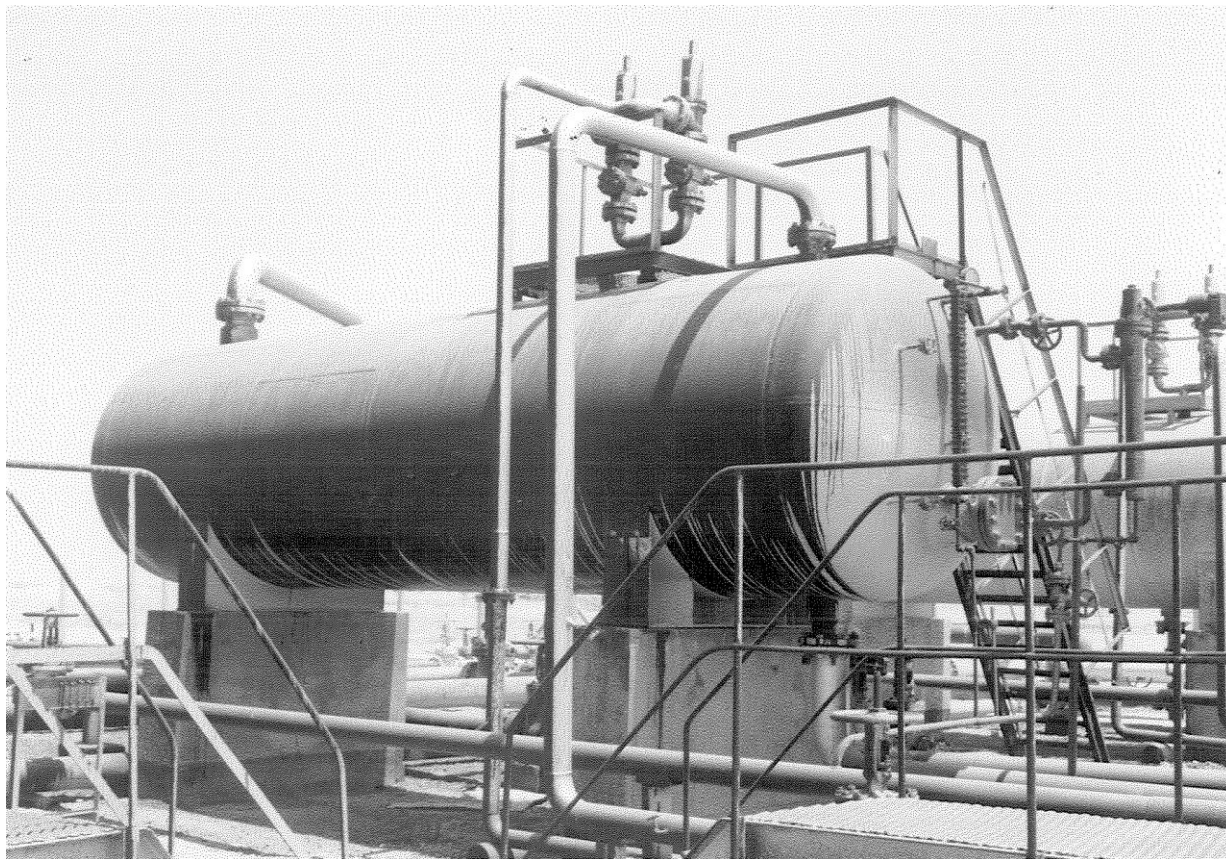


By the end of 2007, KBR had completed the work at the Qarmat Ali Water Treatment Plant and the eight water injection stations. However, KBR noted that the quality of Iraqi labor had been somewhat less than desired and required much more leadership and hands-on supervision from KBR superintendents. In addition, KBR noted in one of its weekly progress reports that significant parts were stolen from the gas turbine generator and approximately 500 gallons of diesel fuel were stolen.

## **Task Order 12 – Restoring Gas Oil Separation Plants**

Task Order 12 was modified 34 times, and total costs were \$84.5 million. The task order, issued May 2, 2004, directed KBR to restore to full capacity 12 South Oil Company Gas Oil Separation Plants. The task order had an estimated cost of \$43.7 million when definitized in December 2004. The Gas Oil Separation Plants included in the task order fell into two categories. In the first category were facilities whose repair and increased production were necessary to support the production goal. The second category included plants that would have the largest increase in production with the lowest capital investment. Figure 8 is a photo of a separator vessel for a gas-oil separation plant.

**Figure 8—Task Order 12 – Separator Vessel for Gas Oil Separation Plant**

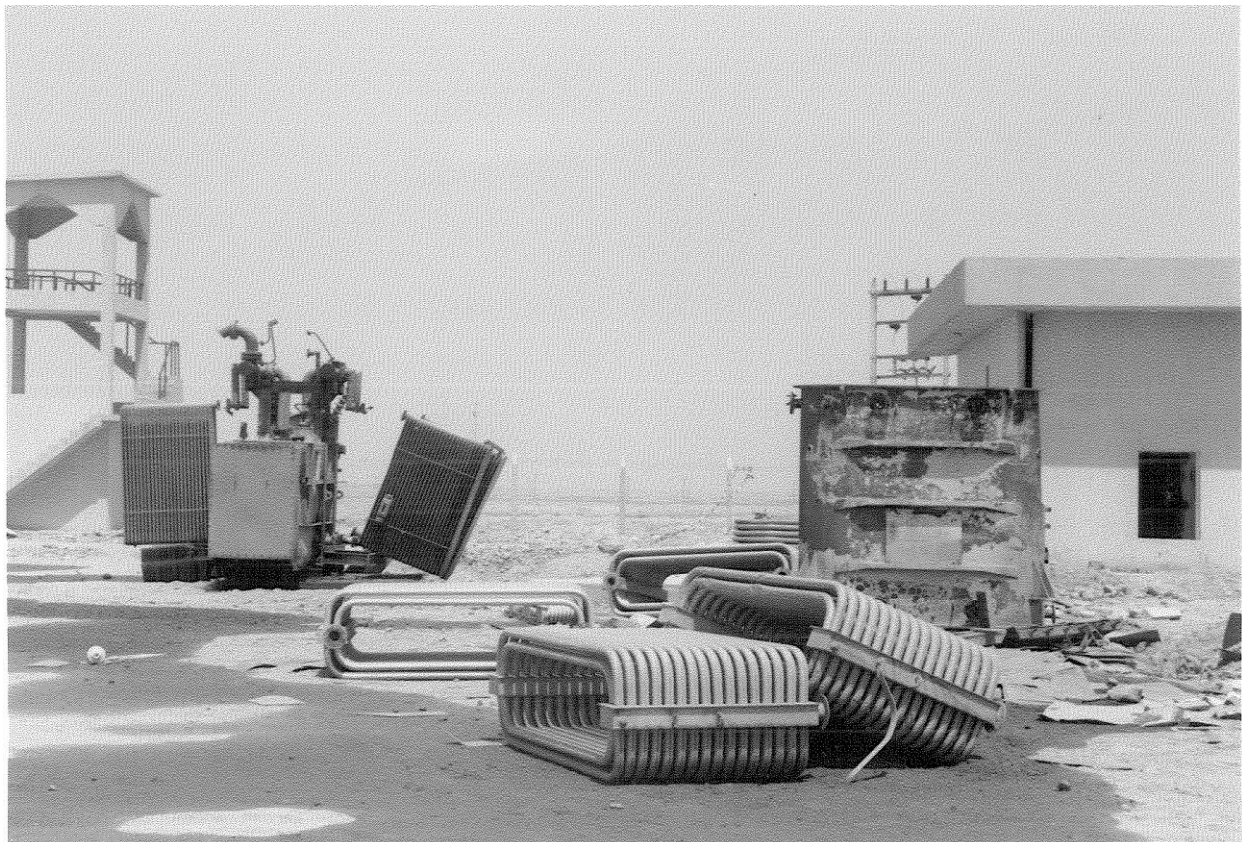


*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

A Gas Oil Separation Plant is a complex plant made up of a series of the separation vessels at multiple stages of pressure, piping and valve systems from the oil manifold, large ground flare systems, control rooms, compressed air systems, fire water systems, and electrical switch gear and related systems.

The need for the repairs at these facilities was reportedly caused by improper maintenance before the war and looting that occurred immediately after major combat (see Figure 9). According to the contracting officer, with few exceptions all items procured under this task order replaced looted items or items that had fallen into disrepair from lack of maintenance by the previous Iraq government. Looting is discussed more extensively in a later section of this report.

**Figure 9—Damaged and Looted Transformer at a Gas Oil Separation Plant Facility**



*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

Thirty-four task order modifications extended the period of KBR's performance, revised the scope, added and deleted requirements, and required other administrative changes. As a result, costs increased from \$43.7 million to \$84.5 million. Costs increased in spite of a modification that deleted construction from KBR's scope of work. According to the contracting officer, the scope of KBR's work was reduced from engineering, procurement, and construction to engineering and procurement only due to budget constraints. South Oil Company, an Iraqi company, assumed construction responsibility. Some key task order modifications affecting costs are shown in Table 3.



**Table 3—Key Modifications Affecting Costs of Task Order 12**

<b>Modification</b>	<b>Date</b>	<b>Purpose</b>	<b>Funding Change</b>
5	4/26/2005	Partially reduced scope in some areas, but also added desalters	\$7,575,033.00
6	4/24/2005	Definitized WQ8 and established and definitized CLIN 0012 for Hammar Mishrif	\$11,111,132.00
11	9/2/2005	Decreased the scope and decreased the base contract amount	-\$10,499,461.00
15	1/31/2006	Increased the authorized amount due to revised requirements for Gas Turbine Parts	\$2,395,000.00
16	2/23/2006	Added additional funds, corrected modification 15, reestablished a period of performance, etc.	\$224,765.00
18	4/14/2006	De-obligated funding due to descoping of 6.6 kV breakers	-\$117,300.00
19	5/4/2006	Obligated additional funds for the overhaul of turbines	\$669,885.00
20	5/12/2006	Obligated additional funds for the training of South Oil Company personnel on the turbines and for additional equipment for Majnoon	\$196,812.00
21	5/15/2006	Administrative changes to a previous modification, plus additional funds for vendor site support & training	\$1,000,000.00
22	6/12/2006	Recorded the amount of award fee available for invoicing and de-obligation of award fee	-\$365,186.00
23	6/17/2006	Changed vendor site support and training	\$297,272.00
24	6/21/2006	Descoped and deleted definitized work	-\$461,181.00
25	7/11/2006	De-obligated excess funds	-\$5,148,118.00
27	9/2/2006	Reduced the amount of award fee available for invoicing and de-obligated award fee	-\$731,336.00
30	5/14/2007	Adjusted under-runs and increased funding	-\$1,077,160.00

*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

According to documents in the contract file, work under this task order experienced “substantial slippage” between December 2004 and February 2005. On March 21, 2005, the government contracting official notified KBR that the slippage was unacceptable and directed KBR to submit a recovery plan. In the recovery plan, KBR identified engineering problems with the water injection pumps as the principal cause of the delay. On April 15, 2005, the government contracting official rejected this explanation and required KBR to submit a revised plan that more fully identified the causes and solutions to the schedule slippage problem. According to the contracting officer, analyses by the government and KBR revealed that the main cause of the delay was the unusually long period that KBR took to write the specifications and place the order

for equipment. He added that the pace of the procurement effort increased dramatically when KBR streamlined its process.

The contract files on this task order stated that KBR performed engineering and procurement activities for the 12 identified facilities. The engineering and procurement work began in December 2004 but was put on hold during rescoping in April 2005. According to the files, the rescoped work was completed between September 2005 and the end of 2006. Since KBR did not have construction responsibilities, purchased materials were turned over to the South Oil Company for installation. KBR also conducted training for South Oil Company personnel and assisted with start-up and operational problems on an as-needed basis. In March 2007, the South Oil Company accepted the work performed by KBR.

According to the contracting officer, at the time of demobilization by KBR and Foster-Wheeler, South Oil Company had begun installing equipment delivered to the various sites. However, he stated that most material purchased by KBR under this task order was sent to the South Oil Company warehouse in Iraq. From that point, according to the contracting officer, the United States had no visibility on installation activity since it no longer had responsibility for the projects or went to the sites.

## **Task Order 20 – Restoring Compressor Stations**

Task order 20 had 25 modifications that extended the period of performance, changed the scope of work, increased funding, or made other changes. These modifications increased the cost of the task order to \$24.4 million. The Coalition Provisional Authority issued Task Order 20 in June 2004 to repair the South Oil Company Compressor Stations (see Figure 11). The original task order was for \$10.6 million. The compressor stations included in the task order were those that support production goals at the Az Zubayr liquefied petroleum gas plant.

**Figure 11—Task Order 20 - Compressor for Installation**



*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

Depending on the task order project, KBR had different responsibilities. For one compressor station, it was responsible for engineering, procurement, and construction. For another, it was responsible for engineering and procurement only. While work progressed on the engineering and procurement work from December 2004, the majority of the work was put on hold in April 2005 for rescoping that was not resolved until September 2005.

Changes in requirements added to the rise in costs and work delays. In one modification, KBR received an additional \$301,850 to complete major commissioning activities. In another, it received an additional \$871,839 for in-scope work on one of the gas compressor stations. Finally, in a third modification, KBR received an additional \$1.3 million to cover cost overruns related to work under the task order.

According to contracting files, KBR completed its work between September 2005 and the dates that the projects were turned over to the South Oil Company--between September 2006 and April 2007. In addition to its engineering, procurement, and construction responsibilities, KBR also conducted operational and maintenance training for South Oil Company personnel.

## Significant Numbers of Task Orders Were Terminated

Contracting officers terminated 10 task orders—one-third of those issued—between November 2004 and May 2007 for the convenience of the government. At the time of termination, costs incurred on these task orders totaled \$167.5 million, as shown in Table 4. This represented 23.2% of total contract costs. By far, the largest dollar value terminated task order—number 11—was terminated due to funding shortfalls, but after most of the work had been completed.

**Table 4—Cost of Terminated Task Orders and Reason for Termination (IRRF costs as of 9/30/2008)**

Terminated Task Order	Cost Incurred	Reasons for Termination
01 – Transition Planning, Fuel Import and Delivery	-	Never Implemented
02 – Initial Mobilization and Replacement of Looted Chemicals	\$10,622,411	Changing requirements; replaced by task orders 14, 15, 16, 17
05 – Life Support South Camp	8,598,280	Changing requirements; replaced by task orders 14, 15, 16, 17
09 – Daura Refinery Power Restoration	1,153,904	Lack of steam to drive turbines
11 – Restoration of natural gas liquid and liquefied petroleum gas plants	146,669,470	Schedule delays, cost overruns, funding limitations
18 – Al Faw Peninsula Oil Control	100,000	Lack of additional funding <u>a/</u>
19 – Basra Oil Cleanup	85,407	Lack of contractor progress <u>a/</u>
24 – Pipeline Communications	136,316	Failure to agree on task order cost and scope <u>a/</u>
25 – Refurbish Loading Arms – Al Basra Oil Terminal	10,500	Funding limitations <u>a/</u>
27 – Rehabilitation of South Oil Company Workover Wells	152,255	Indemnification issues <u>b/</u>
<b>Total</b>	<b>\$167,528,543</b>	

Source: SIGIR analysis of USACE data.

**Notes:**

a/ Payments are made from the Development Fund for Iraq – amounts represent definitized value as of July 2007.

b/ KBR requested indemnification from liability, which the U.S. government referred to Iraq’s Ministry of Oil.

While specific reasons for the terminations were not usually stated in the task order modification documents, other documentation indicates that limited funds, failure to reach agreement on project cost, and poor contractor performance were among the factors contributing to the government’s decision to terminate these task orders. In particular, government contracting officials were displeased with schedule delays on task order 11 (the most costly of the terminated

task orders) and lack of progress on task order 19. However, in the case of the largest terminated task order—number 11—most work had been completed. Task Orders 11 and 19 are discussed below.

## **Task Order 11 – Restore Natural Gas Liquid and Liquefied Petroleum Gas Plants**

Task Order 11, the largest Iraq Relief and Reconstruction Fund task order, accounted for 87.5% of the terminated task order costs, and 20.3% of the total contract costs. At the time of termination in May 2007, \$146.7 million had been spent on restoration of Iraq’s natural gas liquid and liquefied petroleum gas plants, and essentially all work had been completed. This task order was modified 35 times. The U.S. government’s contracting officer stated that the parts to complete the project are still in an Iraqi company warehouse and have not been installed. Also, as discussed more fully later, the Defense Contract Audit Agency (DCAA) found that about half (\$70 million) of the \$144 million in costs proposed by KBR for five projects were unsupported and that the proposals could not be relied on by the government as a basis for negotiating prices.

Task Order 11 was originally issued in May 2004 with a not-to-exceed funding level of \$5 million.<sup>6</sup> The task order was modified in June 2004 to increase the estimated cost to \$46.1 million. The task order required KBR to restore the natural gas liquid and liquefied petroleum gas plants in southern Iraq to increase domestic liquefied petroleum gas production to 3,000 metric tons per day. Work was to include repair of Iraq’s South Gas Company’s<sup>7</sup> North Rumayla plant and the Khor Zubayr plant. These plants were extensively damaged as a result of sabotage and looting after major combat ended.

Figure 12 shows one of the five identical cryogenic liquefied petroleum gas storage tanks at the storage facilities at Umm Qasr. The relief valves at the top of the tank required repair and maintenance. To do this, the valves had to be removed from the tank and brought to a ground surface repair facility. To reach the valves, however, a crane with an especially long boom was required. This picture was taken to help develop a lifting plan to undertake the work and visually depicts the considerable length of boom necessary.

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<sup>6</sup> According to government contract personnel, it was common practice in 2004 to assign \$5 million to any project that was identified but not yet defined.

<sup>7</sup> South Gas Company is a company under Iraq’s Ministry of Oil.

**Figure 12—Cryogenic Liquefied Petroleum Gas Storage Tank at the Bulk Storage Facilities at Umm Qasr (February 2006)**



*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

Modification 2 to the task order, issued in March 2005, provided \$134.3 million for the engineering, procurement, and construction necessary to refurbish or replace the existing South Gas Company's natural gas liquid and liquefied petroleum gas facilities.

Task order 11 was modified 35 times, and costs had increased to \$146.7 million. The increased cost was due principally to added equipment and material costs; additional management and support costs due to an extended construction schedule; and training, reconstruction, and project closeout costs. Some of the key task order modifications are shown in Table 5.



**Table 5—Key Modifications Increasing Task Order 11 Costs**

<b>Modification</b>	<b>Date</b>	<b>Purpose</b>	<b>Funding Increase</b>
21	2/13/2007	Additional funding for relocating air compressor at Khor Zubair; extension of the period of performance; relocating compressor at Khor Zubair.	\$1,885,988
22	2/16/2007	Additional funding for 430 cable glands at Liquefied Petroleum Gas Central; new booster pump skid and additional electrical bulk materials.	\$1,958,105
23	2/17/2007	Additional funding for technical turnover packages	\$611,573
24	2/28/2007	Additional funding for electrical and piping work; bulk materials; and additional utility equipment.	\$2,589,791
25	3/5/2007	Additional funding for management costs.	\$551,202
26	3/23/2007	Additional funding for Nitrogen Unit, Cooling Water Tower Package; funds for additional labor costs.	\$2,218,496
28	4/1/2007	Additional funding for vendor representatives for installation and commissioning of gas chromatographs at Umm Qasr; additional funds for unit at Liquefied Petroleum Gas Central.	\$1,802,706

*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

In addition, a major shift by the Iraq Reconstruction Management Office regarding the direction and schedule to repair the natural gas liquid plant increased life support and security costs and ultimately caused the project to be terminated for convenience due to insufficient funds.

At the time of termination in May 2007, essentially all the work had been completed with two exceptions. First, although the rotors for the turbine gas compressor at North Rumaila natural gas liquid had been refurbished in Dubai and shipped to Iraq, KBR's subcontractor did not have time to reinstall them before termination. Second, KBR was unable to purchase a new Nitrogen Plant for Umm Qasr due to the bankruptcy of a subcontractor. Further, while the remaining facilities were mechanically complete, some systems, although installed, were not commissioned or started up before KBR demobilized. KBR estimated that the unfinished work would cost approximately \$12.5 million to complete, including the cost of a replacement nitrogen plant, according to the contracting officer.

SIGIR discussions with government contracting officials and oil experts familiar with the project indicate that when the task order was terminated, there were enough working parts to produce in excess of 3,000 metric tons per day at this facility; however, this production level has not been achieved. We were advised in August 2008 that production for the southern liquefied petroleum

gas plant was only 1,150 metric tons per day. According to the contracting officer, the refurbished turbine is still in Iraq’s South Oil Company’s<sup>8</sup> warehouse and has not been installed.

## DCAA Audit of KBR-Proposed Costs

In December 2004, the U.S. government’s contracting officer asked DCAA to examine KBR’s five price proposals under Task Order 11. The objective of these audits was to determine whether the costs proposed were acceptable as a basis for the government to negotiate fair and reasonable contract prices. The five projects associated with Task Order 11, totaling \$144.5 million, were

- Project 1 - \$40.7 million to repair Iraq’s Oil Infrastructure - South.
- Project 2 - \$31.7 million for the Khor Zubayr natural gas liquid facility.
- Project 3 - \$22.9 million for work at the North Rumaila natural gas liquid facility.
- Project 4 - \$20.5 million for liquefied petroleum gas production at Khor Zabayr.
- Project 5 - \$28.7 million to repair and expand the Storage/Shipping Terminal at Umm Qasr.

On February 5, 2005, DCAA issued a report on each of the five projects. DCAA reported that significant amounts of the proposed costs were unsupported and that KBR was unable to provide adequate justification of price reasonableness for proposed equipment, material, subcontracts, and other direct costs for each of the projects. DCAA concluded that the proposals were not acceptable as a basis for negotiating fair and reasonable prices.

Table 6 compares the KBR-proposed costs with costs that DCAA concluded were unsupported.

**Table 6—KBR Proposed and Unsupported Costs (\$ millions)**

<b>Project</b>	<b>Proposed Cost</b>	<b>Unsupported Cost</b>
1	\$40.7	\$28.1
2	31.7	14.7
3	22.9	8.7
4	20.5	6.8
5	28.7	12.8
<b>Total</b>	<b>\$144.5</b>	<b>\$71.1</b>

*Source: DCAA reports.*

<sup>8</sup> South Oil Company is a company under Iraq’s Ministry of Oil.



On February 21, 2005, the government conducted negotiations with KBR on the proposed work, and in the end, all parties agreed on a price of \$133.5 million. According to the government pre- and post-negotiation memorandum, on January 26, 2005, KBR provided revised cost estimates totaling \$136.3 million, which the government used to establish its negotiation objective of \$132.6 million. The government's negotiation objective, according to the pre-negotiation memorandum, was based on an Independent Government Cost Estimate and was prepared using catalog prices and actual cost data provided with contractor invoices for labor rates and oil and gas industry regulations. The government's concern was that KBR had used historical data in preparing its cost estimates with very few actual quotes or catalog prices. As a result, the government believed that its Independent Government Cost Estimate was more reliable. In addition, the government noted that previous negotiations substantiated that KBR's historical data is only an engineer's impression of a past occurrence that may or may not be valid. KBR also tended to overstate its labor estimates and often included a pricing contingency, according to government negotiating officials.

## **Task Order 19 – Pipeline Oil Spill Cleanup**

Task Order 19, issued on June 17, 2004, required KBR to remove crude oil from large pools near a damaged pipeline in the Basra area so that another contractor could more easily repair the pipeline (see Figures 13 and 14). KBR subcontracted the work to Halliburton; however, no progress was made and the task order was terminated for convenience. The work was subsequently given to Iraq's South Oil Company who successfully pumped and removed the oil. Ultimately, the government agreed to pay KBR a final settlement under Task Order 19 the amount of \$40,269, which included an award fee of \$1,173.<sup>9</sup>

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<sup>9</sup> As previously mentioned, for consistency of presentation, data reliability and data availability, we have used the obligation amounts shown in the Corps of Engineers Financial Management System as the costs under all contract task orders other than those funded by the Development Fund for Iraq. For Development Fund for Iraq task orders, we obtained the information from contract files, which did not readily have payment data. Thus, in the case of this task order, there is a difference between the amount shown as obligated and the agreed final settlement costs, as discussed in this report. Overall, the differences between obligations and expenditures are not expected to be material.

**Figure 13—Task Order 19 - Ruptured Pipeline and Leakage of Oil**



*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

**Figure 14—Task Order 19 – KBR Attempting to Pump Oil from Ruptured Pipeline**



*Source: Joint Contracting Command-Iraq/Afghanistan contract files.*

KBR was expected to begin work immediately. However, the government contracting officer issued a “stop-work order” on June 22, 2004, after five days of work, because of the lack of

progress. The task order was subsequently terminated for convenience (Task Order 19 was funded by the Development Fund for Iraq).

Written communications on June 22, 2004, from the U.S. government to KBR on Task Order 19 show that contracting officials were displeased with KBR's lack of performance. In the stop-work order, the government contracting officer stated that no progress had been made on the task order and that not a single drop of oil from the spill site was removed. As a result, the site was demobilized and the on-site equipment transferred to Iraq's South Oil Company for its repair work. KBR stated in a letter dated June 25, 2004, that the initiative failed because of incomplete planning during the rapid response and the using the wrong type of pumps to perform the work.

Government contracting officials met with KBR late in November 2004 to discuss the termination settlement and establish the award fee. The lead negotiator for the government requested that KBR provide the necessary documentation to support the termination costs that KBR was reflecting in its cost report. KBR was unable to adequately substantiate its cost during this meeting, according to the government. KBR subsequently provided a figure of \$31,000 to the contracting team; it provided no supporting documentation.

In December 2004, KBR again met with the government's contracting team and provided additional insight into the cost incurred for Task Order 19. According to the government's termination settlement agreement, KBR did lease a pumping machine and attended a couple of meetings with the South Oil Company. The cost for the pumping machine was \$28,533 and labor costs were \$9,831. KBR did have a purchase order for the lease of the pumping machine to verify the cost. As a result, the government agreed on a settlement amount of \$38,364. In addition, the government agreed to pay KBR an award fee of \$1,173. Upon review of the information, the government made the determination that the final settlement cost of \$40,269 was fair and reasonable.

## **Support Task Orders Consumed a Third of Contract Costs**

Costs for contract support such as security, transportation, personnel support, and management totaled \$241.3 million, or 33.4% of contract costs, and were paid from the Iraq Relief and Reconstruction Fund. Security alone accounted for 26.6% of support costs and 8.9% of total contract costs. On June 7, 2004, four task orders were issued to cover support costs incurred on the contract. Task Orders 14, 15, 16, and 17 provided support for logistics, transportation, freight, management and administration, security, and basic life support. These four task orders replaced task orders 2 and 5, which were terminated for convenience after spending about \$19 million. Since the purpose of these task orders was to pay for support costs, they were modified 80 times to extend the periods of performance into 2007 and in some cases through most of 2007 so that reconstruction work could be completed on the contract. Table 7 shows the cost of these support task orders. A discussion of them follows the table.

**Table 7—Summary of Support Task Order Costs (Costs as of 9/30/2008)**

<b>Task Order</b>	<b>Number of Modifications</b>	<b>Cost</b>
2 - Initial Mobilization	Terminated	\$10,622,411
5 - Life Support, South Camp	Terminated	8,598,280
14 - Transportation and Mobilization	17	44,106,849
15 - Management and Administration	21	60,943,604
16 - Security	19	64,152,304
17 - Life Support	23	52,910,744
<b>Total</b>	<b>80</b>	<b>\$241,334,192</b>

*Source: SIGIR analysis of Corps of Engineers Financial Management System data and contract files.*

## **Task Order 14 – Transportation and Mobilization**

Task Order 14 was issued in June 2004. It was modified 17 times, and final costs totaled \$44.1 million. The task order was issued to cover KBR’s cost for transportation and mobilization operations. It replaced Task Order 2 (initial mobilization) under the same basic contract that was terminated for convenience of the government. The scope of work included transporting supplies, materials, and equipment from outside Iraq to their final destination in Iraq. It also covered the cost of mobilization, such as bringing employees into the country, establishing offices, and purchasing supplies and materials

## **Task Order 15 – Management and Administration**

Task Order 15 was also issued in June 2004. The task order was modified 21 times, and final costs totaled \$60.9 million. The task order was issued to cover the cost of home office support, program management, procurement activities, commissioning and startup support, project controls, scheduling, cost engineering, cost estimating, and support staff. It also included contract management expenses, such as home office supplies, materials, and office space, which could not be charged directly to a project.

Costs increased from the initial not-to-exceed estimate of \$6 million due in part to an additional requirement for KBR to prepare Commercial Turnover Packages<sup>10</sup> for all task orders. Modifications 12 and 13 increased funding by \$1.2 million to cover the cost of preparing these packages. The extent of the documentation required in the Commercial Turnover Packages was not envisioned by the government or KBR during project planning.

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<sup>10</sup> Commercial Turnover Packages provide the government a detailed description of the execution of a task order.

## **Task Order 16 – Security**

Final costs under Task Order 16 totaled \$64.2 million; the task order was modified 19 times to increase or decrease funding, extend the security contract, and add armor to (“up-armor”) security vehicles. Task Order 16, issued in June 2004, required KBR to provide protection to its employees, subcontractors, other contractors, and U.S. government employees assigned to its operations in Iraq from the actions of terrorists, anti-coalition forces, and criminals. Efforts included providing security, the hardening of base camps and other facilities, security escorts to facilitate the movement of personnel, personnel security details while on job sites, and materials such as hardened vehicles and protective gear. Construction delays under task orders 11 and 20 contributed to the need for additional security time. The Armor Group, one of KBR’s subcontractors, provided security support to construction activities.

## **Task Order 17 – Life Support**

Task order 17 was modified 23 times and cost \$52.9 million. The task order required KBR to provide life support services for government and contractor personnel performing work under the contract. Life support consisted of housing, meals, laundry, and water; procurement of supplies; and maintenance of a secure environment for personnel.

Task Order 17, when issued, had a not-to-exceed amount of \$12.0 million. It was subsequently definitized at \$51.5 million. Part of the cost increase was for time extensions on other task orders. For example, modification 18 increased funding by \$616,722 to cover an extended period of performance. Modifications 11 and 14 added requirements to provide life support services to personnel from the Commander, Joint Special Operations Task Force/US Special Forces, and Iraq Special Forces.

## **Pre-Contract Looting, Security, and Inadequate Iraqi Maintenance Were Also Major Factors Affecting Contract Costs**

Task order costs were significantly increased by looting that took place during and after initial combat, the general security environment, and the impact of inadequate Iraqi maintenance of the facilities over time. Similarly, some concerns exist about prospects for maintenance of reconstructed facilities.

During the contract solicitation in July 2003, USACE officials shared with potential bidders a Rough Order of Magnitude estimate of the amount and type of work projected to be done to restore the Iraqi oil infrastructure, its rough dollar value, and the schedule for accomplishing the work. The Rough Order of Magnitude estimate identified a funding requirement of \$1.7 billion to restore Iraq’s oil infrastructure in the entire country, as shown in Table 8.

**Table 8—Rough Order of Magnitude Cost Estimate (\$ millions)**

<b>Cost Category</b>	<b>Cost Estimate</b>	<b>Percent</b>
System restoration	\$980	58
System maintenance and operating equipment	21	1
Vehicle and heavy equipment	65	4
Security, safety, and environment	70	4
Communications	43	3
Other (driven by benzene and LPG costs)	499	30
<b>Total</b>	<b>\$1,678</b>	<b>100</b>

*Source: Corps of Engineers Request for Proposals, 7/2003.*

Data were not available to break out these costs between the northern and southern sectors. In arriving at the Rough Order of Magnitude cost estimate, the USACE used damage assessments provided by KBR, which was then the sole-source contractor repairing the oil infrastructure. Since not all damage assessments were completed, it estimated costs based on a sample of assessments. According to U.S. Department of State, Bureau of Near Eastern Affairs officials, the Rough Order of Magnitude estimate was developed in a series of meetings between USACE and the Iraq Ministry of Oil. The purpose of developing these estimates was to determine what the United States should focus on and what should be left to the Government of Iraq to do on its own. According to the USACE, it included the estimate in the Request for Proposal for this contract to remove any perception that KBR had information concerning requirements that were not available to other potential bidders.

In formulating the cost estimate, the USACE separated costs between those related to war damage and those related to looting, excluding a 20% contingency factor. The analysis shows that \$943 million, or 67% of the total estimated cost, was due to looting.

SIGIR's review of contract files confirmed that much of the oil infrastructure suffered from looting. For example:

- Ten water injection facilities service the South Rumaila and North Rumaila oil fields. Assessment of these facilities during an earlier KBR contract found that looting had caused significant damage to electrical, mechanical, and instrumentation items.
- Task Order 12 directed KBR to repair and restore 12 South Oil Company Gas Oil Separation Plants in southern Iraq to full capacity. The repairs at these facilities were needed primarily due to a lack of maintenance prior to the war and the looting that occurred immediately after the end of hostilities in March 2003. U.S. contracting officials stated that virtually all items procured under task order 12 were for replacement of looted items or items that were in disrepair because of poor maintenance before the war.
- Task Order 8 required KBR to completely restore the Qarmat Ali Water Injection Project in southern Iraq. According to the task order, many of the buildings, pump stations, and



other facilities were damaged due to looting during and after combat operations resulting from Operation Iraqi Freedom.

- Also related to Task Order 8, KBR noted in one of its weekly progress reports that “Significant parts were stolen from the...gas turbine generator...” It also noted that “Approximately 500 gallons of diesel fuel was stolen on the evening of 16 Jan 05.”
- For Task Order 12, the executive summary document describing the work performed to restore gas and oil separation plants, noted that the basis for repairs at these facilities is due, in part, to “...looting that occurred immediately after the cessation of hostilities in March 2003.”
- Task Order 28 required KBR to replace chemicals in refineries and gas plants that were destroyed or looted during and after combat operations resulting from Operation Iraqi Freedom.
- As part of Task Order 7, KBR was required to replace equipment (office, field control, and laboratory) lost “...due to looting.”

## **Ongoing Security Concerns During Contract Execution**

In addition to looting, other ongoing security concerns also affected contract execution as noted in the following examples.

- On Task Order 26 to repair and upgrade oil products pipeline and facilities operated by Iraq’s Oil Pipeline Company, security concerns in November 2005 prohibited project managers from attending weekly progress meetings and caused delays in delivering materials to a work site. In September 2006, the private security company hired to escort the delivery of materials was unable to do so because of the elevated threat level. As a result, scheduled deliveries were delayed.
- In August 2004, security concerns caused the cancellation of essential data-gathering sessions on both Task Order 12 to repair gas and oil separation plants and Task Order 20 to repair gas compressor stations. In July 2004, personnel movement restrictions and a security lockdown impaired data-gathering efforts and adversely impacted KBR’s ability to make progress on the task orders.
- On Task Order 20, the repair of gas compressor stations, the compressor skid refurbishment subcontractor left Iraq and would not return. The subcontractor decided that the security environment had deteriorated substantially since it agreed to provide installation oversight, commissioning, and startup supervision. To resolve this problem, KBR used another of its subcontractors to complete the remaining work. KBR stated that this situation caused schedule delays.
- On Task Order 8 to complete the construction and commissioning activities at pump stations in the Qarmat Ali Water Treatment Plant, in August 2004, the Indian Embassy refused to allow Indian nationals into Iraq, which delayed construction. KBR filled these positions with Iraqi nationals, but their skills were reportedly not equal to those of the Indian nationals.

- On Task Order 16, provision of security for personnel, in February 2007, KBR reported that intimidation and kidnapping of host country nationals and other personnel could lead to project delays. Specifically, it stated that half the host country national workforce did not show up for work at the Baghdad International Airport Camp following the abduction of personnel in February 2007.
- On Task Order 23, procurement and installation of telecommunication systems, KBR, in August 2004, expressed concern about its ability to hire qualified subcontractors to work in Iraq given the problem of kidnappings.

## **Iraqi Equipment and Facilities Maintenance**

SIGIR's discussions with government contract personnel in Baghdad, review of the government's KBR contract file, and our prior audits on reconstruction activities raise concerns about whether the equipment and facilities that the United States spent millions to repair or replace will be properly maintained.

According to U.S. contracting officials, once a project has been turned over to the Iraqis, U.S. government agencies have limited visibility on activity at the project sites since they no longer have responsibility for the projects. SIGIR discussions with government and contractor personnel suggest that Iraqis may not be adequately maintaining facilities and equipment based on past observations of Iraqi habits. For example, on June 28, 2004, the government, under the KBR contract, issued task order 25 to repair ship loading arms at Al Basrah Oil Terminal. The intent was to complete work started under the earlier Restore Iraqi Oil contract and enhance crude export capacity. In January 2005, the task order was terminated for convenience for the government. We were told that a follow-on contract was awarded to Parsons-Iraq Joint Venture (Parsons) to complete the work. A government contracting official stated that when Parsons went to the site, it found that the Iraqis had not lubricated the joints in the loading arms for over a year. In fact, company officials said that they saw the Iraqis forcefully pull the loading arms downward because the joints were stuck. In an April 2006 letter from Parsons to the South Oil Company, Parsons referred to the retraction problem with the loading arm, stating that Parsons "...repeatedly advised the Terminal Manager that it was necessary for his maintenance staff to grease the bearings on the loading arm. To the best of our knowledge this was never done."

In addition, contract officials said that on many projects, KBR and Foster-Wheeler repeatedly stressed to the Iraqis the need for a preventive maintenance plan, and KBR provided training to Iraqi operators. However, we were told by a USACE contracting official that the Iraqis did not seem to care about preventive maintenance and the U.S. government had little influence once the projects were transferred to the Iraqis.

In previous reports, SIGIR and others have raised concerns about the Government of Iraq's need to prepare to take responsibility for projects' operations, security, and sustainability. In a capping report that looked at 122 SIGIR audit reports, one common theme was the need for U.S. recognition of the importance of working with appropriate Government of Iraq ministries in the transfer of reconstruction projects to ensure long-term sustainability of the projects completed.



# **Contract Administration and Oversight Beset By a Number of Challenges**

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The scale and complexity of the rebuilding of the oil infrastructure was challenging to government contract oversight officials and required use of a contractor to help provide program management support. Also, contract oversight suffered from the lack of continuity of contracting officials. Since January 2004, 13 government contracting officers have served an average of 4 months each.

KBR's was criticized for its inability to adhere to cost and schedule goals and produce oversight reports required by the contract. Weaknesses were also identified in KBR's cost information data, estimating system controls, and purchasing system controls. Further, in January 2007, the government's contracting officer expressed concern about the use of substandard piping material and fraudulent material certification by one of KBR's suppliers—a problem attributed to inspection and acceptance of the substandard materials by a KBR receiving clerk instead of having been inspected by a Quality Assurance/Quality Control Inspector, as required by KBR's Quality Control Plan. Contract files indicate that KBR referred the matter to the U.S. Army Criminal Investigation Division, but SIGIR found no record of any investigation of this matter.

Finally, the contract provided an award-fee plan in which KBR could earn up to a maximum of 3% of the negotiated estimated cost of the task orders based on its performance. However, KBR earned only about 25 percent of the amount it could have earned under this contract.

## **Request for Proposals**

The initial Request for Proposal for repairs to Iraq's oil infrastructure called for two contracts—one for the northern oil infrastructure and one for the southern oil infrastructure—to replace the one sole-source contract previously awarded to KBR in March 2003. The RFP was issued in July 2003, and six companies submitted proposals. Evaluation criteria included past performance and experience, business and management approach, contract administration plan, and cost. The contract to repair the oil infrastructure in the southern portion of the country was awarded to KBR in January 2004.

Based on KBR's damage assessments of the condition of the oil infrastructure, the USACE amended the solicitation in October 2003, establishing the contract cost ceiling at \$1.2 billion for southern Iraq and \$800 million for northern Iraq with a minimum of \$500,000 for each of the two regions. USACE officials stated that after the Request for Proposal closed, assessment of the fragile infrastructure and the continued looting and sabotage showed that additional work would be needed to bring the system up to pre-war capability. Furthermore, the USACE calculated that the original cost ceiling of \$500 million would be consumed in less than three months. Rather than compete the contracts again, the contracts' ceiling was increased to \$2.0 billion.

The new contracts were to cover a full range of services. These included, but were not limited to, extinguishing oil well fires; environmental assessments and cleanup at oil sites; oil infrastructure

condition assessments; engineering design and construction necessary to restore the infrastructure to a safe operating condition; oilfield, pipeline, and refinery maintenance; procurement and importation of fuel products; distribution of fuel products within Iraq; technical assistance in marketing and sale/export; and technical assistance and consulting services to the Iraqi oil companies.

In an earlier report, SIGIR reviewed the procedures used to award 12 design-build construction contracts, including the KBR contract above.<sup>11</sup> This report noted that because KBR had the prior oil infrastructure contract, it had accumulated knowledge in developing the contingency support plan and the costs likely to be involved in performing work under the follow-on contract. Also, the government had already reimbursed KBR for its mobilization costs, and KBR already had staff in place.

## **Contracting for Program Management**

As the contracting activity for the KBR contract, the USACE had the authority, through a duly appointed Procuring Contracting Officer, to enter into, administer, and/or terminate the contract and related task orders and to make related determinations and findings. It could also designate a Contracting Officer Representative to oversee the execution of the KBR contract.

According to USACE officials, the government could not oversee a program as large as the Iraqi oil infrastructure reconstruction without contractor support. As a result, and as noted earlier, in March 2004, a program management contract was awarded to Foster-Wheeler at an estimated cost of \$8.4 million. According to the acquisition plan, Foster-Wheeler was to provide a range of services, including program integration and coordination, requirements management, monitoring and reporting, acquisition, procurement, logistics support, and quality assurance.

In an earlier review of the U.S. use of contractors, SIGIR reported that assessments of Foster Wheeler's performance varied significantly, making it difficult to conclude how well the company had provided program management services in the oil sector. SIGIR stated that USACE officials believe that the company performed in an outstanding manner. However, other senior consultants criticized the contractor's performance.<sup>12</sup>

## **Lack of Continuity of Government Oversight Personnel**

Government contract files show that the original contract and the first several task orders were awarded by USACE's Fort Worth District. This contract was the follow-on to the original Task Force Restore Iraqi Oil contract awarded in 2003 and was transferred to the Coalition Provisional Authority in 2004. Around June 2004, the contract was again transferred to the newly established Project and Contracting Office under DoD. In 2005, the program component of the Project and Contracting Office was assigned to USACE's Gulf Region Division (GRD), and the contract component was transferred to the Joint Contracting Command-Iraq/Afghanistan (JCC-

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<sup>11</sup> *Award of Sector Design-Build Construction Contracts*, Report Number 04-005, July 23, 2004.

<sup>12</sup> For more detail on these oversight issues, see *Review of the Use of Contractors in Managing Iraq Relief and Reconstruction Projects*, SIGIR-08-003, October 29, 2007.

I/A). JCC-I/A and GRD were newly established organizations. The Project and Contracting Office ceased to exist once the transfer took place. JCC-I/A provided information showing that contracting officer had changed 13 times since inception of the KBR contract, as shown in Table 9. The average tenure of each contracting officer was about four months.

**Table 9—List of Contracting Officers**

<b>Contracting Officer</b>	<b>Date of Change</b>	<b>Affiliated Organization</b>
1	01/16/2004	U. S. Army Corps of Engineers, Ft. Worth District Office
2	4/19/2004	Coalition Provisional Authority-Program Management Office
3	8/25/2004	Department of State and USACE Project and Contracting Office
4	12/16/2004	Department of State and USACE Project and Contracting Office
5	12/30/2004	Department of State and USACE Project and Contracting Office
6	6/11/2005	Department of State and USACE Project and Contracting Office
7	12/15/2005	Joint Contracting Command-Iraq/Afghanistan
8	4/10/2006	Joint Contracting Command-Iraq/Afghanistan
9	4/24/2006	Joint Contracting Command-Iraq/Afghanistan
10	10/12/2006	Joint Contracting Command-Iraq/Afghanistan
11	10/15/2006	Joint Contracting Command-Iraq/Afghanistan
12	6/22/2007	Joint Contracting Command-Iraq/Afghanistan
13	7/1/2007	Joint Contracting Command-Iraq/Afghanistan

*Source: Joint Contracting Command – Iraq/Afghanistan.*

KBR information indicates that in addition to the frequent rotation of contracting officers, there were also numerous rotations of other contracting officials, such as Procuring Contracting Officers. According to KBR data, of the 25 contracting officials associated with the contract, 75% served only four-month tours. KBR added that in several instances contracting officers assigned to administer KBR’s contract had never managed cost reimbursable contracts or had any experience with contracts over \$10 million.

## **Concerns Regarding Substandard Piping Material and Fraudulent Certification**

In January 2007, JCC-I/A notified KBR of its concern over use of substandard piping material and a fraudulent material certification by one of KBR's suppliers. The material related to failed 12-inch flanges used in the North Rumaila Natural Gas Plant. The JCC-I/A contracting officer stated that installing components in a high-pressure gas piping system with the incorrect metallurgy was a serious concern.

JCC-I/A requested KBR to provide a Corrective Action Plan to address concerns about all material obtained from this supplier, identify the extent of the problem, and provide a corrective action plan. In mid-February 2007, KBR provided the Corrective Action Plan and stated that it replaced nine apparently adulterated flanges. It also noted that in a random surveillance inspection of construction activities by a KBR Quality Control Inspector, inconsistencies were noted in the stampings of flanges provided by a Kuwaiti company that were not compliant with the governing code. Four flanges were identified as suspect.

The KBR report also noted that the root cause of the problem was that inspection of the substandard materials was conducted by a KBR receiving clerk and not by a Quality Assurance/Quality Control Inspector, as required by the Oil Quality Plan. KBR reported in February 2007 that it had referred the matter to the U.S. Army Criminal Investigation Division and provided information necessary for it to make a decision on whether to investigate. In our discussions with the U.S. Army Criminal Investigation Division, they stated they could find no record of any investigation of this matter. This matter has been referred to SIGIR's investigations unit for consideration.

## **KBR's Financial and Internal Control System Weaknesses**

In August 2004, the government's contracting officer notified KBR, that it considered KBR to "have universally failed to provide adequate cost information as required under [its] contract." The letter referenced a DCAA report<sup>13</sup> stating that KBR "...does not maintain policies and procedures that require periodic management reviews of its estimating system process; does not provide adequate disclosure and basis of estimates for incurred cost and estimates-to-complete; does not provide adequate cost/price analysis of subcontracts; and, does not ensure assigned personnel have sufficient training, experience and guidance to perform estimating tasks in accordance with the Defense Federal Acquisition Regulation Supplement and its established policies and procedures."

In September 2004, the contracting officer sent another letter to KBR noting that "...timely payment of invoices is being hindered by the fact the invoiced amounts do not correlate to KBR's cost reports." The letter added that the Procuring Contracting Officer "has been unable to correlate any invoiced amount to any Cost Report element because of deficient cost reports..." as explained in the August 2004 letter. In January 2005, the contracting officer requested that

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<sup>13</sup> DCAA Report Number 3311-2004K24010001.

“[d]ue to continuous discrepancies and an ongoing DCAA audit, it is requested that payment be withheld until further notice on the KBR Oil Contract.”<sup>14</sup>

In January 2005, JCC-I/A notified KBR that its failure to produce Earned Value Management System<sup>15</sup> data in accordance with the contract and its failure to deliver a usable, accurate cost report were endangering contract performance. According to the contracting officer, the government made numerous attempts to work with KBR to bring its cost reporting procedures up to minimal acceptable standards, but to no avail. Until KBR corrects the cost-reporting deficiencies required by the contract, any earned value management system data would be useless, according to JCC-I/A. The contracting officer added that cost containment and funds management were the biggest detriments of the program. Examples cited by JCC-I/A of cost containment and fund management issues include:

- a cost overrun of \$67.2 million, or 36.9%, on Task Orders 14-17,
- expenditures of \$378,681 on Task Order 25, which had a not-to-exceed amount of \$10,000,
- expenditures of \$464,524 on Task Order 18, which had a not-to-exceed amount of \$100,000.

The issues concerning the monthly cost report, according to KBR, had to do with how project costs were captured and presented to the government for review and not with the validity of the costs or the adequacy of the cost-reporting system. The government initially directed KBR to change its monthly progress report to reflect a traditional oil and gas industry format but later asked KBR to return to a reporting format based on an Earned Value Management System.

KBR stated that it had worked diligently and expeditiously to implement the changes requested by JCC-I/A and that it had worked closely with the Project and Contracting Office to ensure that the company’s monthly cost reports were fully aligned with the government’s expectations.

According to KBR, subsequently, the government contracting officer wrote to KBR stating that it had met the contractual requirements, had implemented an earned-value management system, and had demonstrated adequate contract compliance. The contracting officer also stated that the government was encouraged by KBR’s progress, according to KBR.

## **Estimating System Controls**

Estimating system controls represent a contractor's policies, procedures, and practices for generating estimates of costs and other data included in proposals submitted to customers in the expectation of receiving contract awards. The contract provides that KBR shall establish, maintain, and comply with an estimating system that is consistently applied and produces reliable, verifiable, supportable, and documented cost estimates that provide an acceptable basis

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<sup>14</sup> See *DCAA Audit of KBR-Proposed Costs*, p. 12.

<sup>15</sup> A management system for measuring project progress, including technical, schedule, and cost performance and providing early warning of potential problems.

for negotiation of fair and reasonable prices. In early 2004, the Defense Contract Management Agency requested DCAA to audit KBR's Estimating System, and it received the DCAA report in August 2004.

DCAA concluded that KBR's estimating system and related internal control policies and procedures were inadequate for providing verifiable, supportable, and documented cost estimates acceptable for negotiating a fair and reasonable price. Its examination noted significant deficiencies in the design or operation of KBR's internal control structure. In DCAA's judgment, these deficiencies could adversely affect KBR's ability to formulate, process, summarize, and report estimates of costs in a manner consistent with applicable U.S. laws and regulations.

In August 2005, DCAA performed a follow-up examination of KBR's estimating system to determine if the deficiencies identified in the August 2004 report had been corrected. It concluded that there were improvements as a result of corrective actions taken by KBR. However, DCAA also reported that additional corrective actions were still required in certain areas. As a result, it concluded that KBR's estimating system was "inadequate in part" versus the earlier conclusion that it was inadequate overall. According to a DCAA auditor, the estimating report was only a follow-up audit. Until the full audit is performed, DCAA believes that KBR's estimating system is high risk.

## **Purchasing System Controls**

Consistent application of sound purchasing procedures and processes is an important management control to ensure that a contractor is economically and efficiently conducting its operations, thereby reducing the government's risk. In March 2004, DCAA issued a report on the results of its audit of KBR's purchasing system. This audit was conducted to determine whether the contractor had consistently complied with established internal controls. DCAA's evaluation was limited to certain contractor purchasing system practices used in preparing its analysis and selection of subcontractors.

During its audit of KBR's subcontract management, DCAA noted certain purchasing system practices used in the bidding and analysis of subcontractors' submissions that required corrective actions to improve the reliability of KBR's future subcontract purchasing transactions. These deficiencies were as follows:

- KBR does not maintain adequately documented subcontract procurement files necessary to provide a complete and accurate history of purchase transactions to support decisions on the subcontractor selected and the price paid. Documentation of a comprehensive history of a transaction is needed to provide a complete background of the basis for informed decisions at each step in the procurement process.
- KBR does not maintain an approved supplier list or rating system that can assist procurement personnel with source selection.
- KBR did not provide adequate documentation as to why the lowest bidder was not selected. KBR did not take into consideration subcontract pricing considerations specified in the Federal Acquisition Regulation; as a result, subcontract awards were

issued on an “advice or quoted” price basis without an adequate price/cost analysis or negotiations to establish a fair and reasonable price.

In June 2006, DCAA issued another report on KBR’s purchasing system internal controls. DCAA found that certain policies, procedures, and practices and relating purchasing system internal controls were “inadequate in part.” It identified significant deficiencies in two areas. These deficiencies were as follows:

- KBR’s policies, procedures, and practices and related internal controls were not adequate with respect to subcontract award and administration and the use of metrics for purchasing management and administration.
- KBR’s policies, procedures, and practices and internal controls related to purchasing source selections, compliance reviews, and pricing and negotiations were not adequate in all respects because its proposed corrective actions are vague, corrective actions had not been implemented, and/or DCAA had not tested implementation.

## **Defective Cost or Pricing Data**

10 U.S.C. 2306(a) requires KBR to provide the government with accurate, complete, and current cost or pricing data as a basis for negotiating fair and reasonable contract prices. Cost or pricing data that as of the date of agreement on the price of the contract (or another date agreed upon between the parties) were inaccurate, incomplete, or noncurrent are considered defective cost or pricing data.

In February 2005, JCC-I/A requested DCAA to examine KBR’s cost or pricing data for the initial pricing of Task Order 12 to ascertain whether the cost or fee negotiated was increased by a significant amount because the contractor did not comply with the statutory requirements to provide accurate, complete, and current cost or pricing data.

DCAA concluded that KBR overstated equipment, material, and subcontract costs. DCAA recommended a price adjustment of \$4.9 million principally because KBR concealed from government negotiators amounts contained in two hidden columns of a spreadsheet used to prepare the estimates. However, while finalizing its audit, the task order was modified to reduce the scope of work. This modification, according to DCAA, made the government “whole,” and its recommendation for price adjustment was therefore no longer pertinent.

## **KBR Performance Limited Award Fee Received**

The contract provided an award-fee plan in which KBR could earn up to a maximum of 3% of the negotiated estimated cost of the task orders based on its performance.<sup>16</sup> Under the plan, an Award Fee Evaluation Board (Evaluation Board) would assess KBR’s performance on each task

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<sup>16</sup> Award fees are provided to a contractor for excelling in contract performance and as a way to incentivize further improvement.

order using the pre-established rating scale shown in Table 10. KBR’s performance would be given one of four ratings: average, good, very good, or excellent. To receive award fees, KBR had to attain a weighted numeric score greater than 70 points and a rating better than average. The percent of award fee earned depends on both the numeric score and rating.

**Table 10—KBR Award Fee Rating Scale**

Rating	Numeric Rating	Percent Award Fee
<b>Average:</b> Performance is at the minimum required level to meet needs. Areas of good performance are offset by deficiencies and problems, which reduce performance to a level that is minimally acceptable.	0 - 70	-
<b>Good:</b> Contractor exceeds some requirements in a manner demonstrating commitment to the program. Work completed is much better than minimum required performance. Areas of deficiency and minor problems are more than offset by areas of good performance.	71 - 80	4 - 40
<b>Very Good:</b> Performance is of high quality and approaching the best that could be performed. Work completed greatly exceeds an average performance level. A few minor problems are experienced during the evaluation period without impacting the overall level of performance.	81 - 90	44 - 80
<b>Excellent:</b> Performance is of the highest quality that could be achieved under the contract. No areas of deficiencies or problems are encountered during the evaluation period.	91 - 100	82 - 100

*Source: Joint Contracting Command – Iraq/Afghanistan contract files.*

The Evaluation Board rated KBR’s performance based on technical, cost, and management factors. These factors were further divided into sub-factors and given various weights in calculation of a final score. According to the award fee plan, the Evaluation Board emphasized cost and technical performance in the criteria, which make up 70% of the total performance score. Table 11 shows the evaluation factors and their respective weight.

**Table 11—Evaluation Factors and Weight**

Factors and Sub-Factors	Weight
Technical Performance (60%)	-
A. Adherence to Schedule	35%
B. Health and Safety	25%
B. Quality of Work	20%
C. Responsiveness	20%
Cost Performance (10%)	-
Management (30%)	-
A. Business Management	60%



B. Identification and Resolution of Problems	20%
C. Liaison	10%
D. Initiative	10%

Source: Joint Contracting Command – Iraq/Afghanistan contract files.

As shown in Table 12, KBR’s performance during the contract varied from average to excellent, earning KBR \$6.5 million from a possible award fee of \$25.4 million (25% of the amount it could have earned). It received an award fee for all periods except for period one, for which it was rated average and thus did not qualify for an award. In the seven evaluation periods, the Evaluation Board listed KBR’s strengths as having in place health and safety measures, a robust quality control, and sound property management. However, its strengths were overshadowed by weaknesses in adherence to schedule, ability to forecast cost overruns, and accuracy in progress reporting.

**Table 12—KBR Award Fee Earned**

Award Fee Period	Dates	Numeric Score	Adjectival Rating	Award Earned	Award Pool
1	1/14/2004 – 1/29/2005	67	Average	-	\$7,900,000
2	1/30/2005 – 7/23/2005	75	Good	\$876,713	4,383,566
3	7/24/2005 – 1/21/2006	83	Very Good	2,336,031	4,695,563
4	1/22/2006 – 7/21/2006	79	Good	2,263,855	6,288,486
5	7/22/2006 – 1/21/2007	82	Very Good	855,125	1,782,525
6	1/22/2007 – 6/30/2007	75	Good	45,865	229,323
7	7/1/2007 – 12/31/2007	98	Excellent	79,721	83,043
<b>Total</b>				<b>\$6,457,310</b>	<b>\$25,362,506</b>

Source: Joint Contracting Command – Iraq/Afghanistan contract files.

# Conclusions, Recommendations, and Lessons Learned

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## Conclusions

The lack of security, the absence of protection against infrastructure looting, and poor pre-war maintenance were the major contributors to the increased cost of this contract. Had the security environment been better, had the facilities been protected against looting, and had the infrastructure been properly maintained, U.S. reconstruction costs would have been significantly less. KBR ended up building facilities better than Iraq had before the war began.

U.S. reconstruction projects in Iraq were undertaken in an unstable security environment, with funding uncertainties and time constraints. These conditions created very real challenges in accomplishing pre-award planning and defining project requirements. There were also challenges associated with the administration and oversight of this contract, such as the use of a separate contractor to provide program management support and whose performance was viewed as providing unclear results. Further, contract oversight suffered from a lack of continuity of government contracting officials.

Maintaining the oil infrastructure is now up to the current Government of Iraq. Going forward, unless the Government of Iraq completes what KBR started and maintains what it provided, it is likely that the value of the U.S. funds for the Iraq reconstruction effort will be diminished or possibly lost. There is anecdotal evidence that maintenance of U.S. funded and built facilities is being neglected. This report and SIGIR's other audits have identified the importance of properly preparing the Government of Iraq for assuming responsibility for the assets transferred to it and highlights the need to ensure unity of effort among responsible U.S. agencies.

## Recommendations

SIGIR recommends that the U.S. Ambassador to Iraq take the following actions:

1. Direct the Economic Section of the Embassy to examine the extent to which the Government of Iraq is properly maintaining oil projects built by KBR.
2. If the Economic Section of the Embassy concludes that project maintenance is lacking, direct the Economic Section of the Embassy to propose an entity to develop and implement a strategy to facilitate proper training of Iraqi personnel in project maintenance.

## **Lessons Learned**

SIGIR identified a number of lessons that U.S. government organizations could apply to future reconstruction projects in a contingency environment. They include the following.

- In a war zone, the immediate protection of existing facilities and equipment may be key to avoiding extensive looting and property destruction, which significantly increase reconstruction costs.
- The risk of product substitution and fraud increases if material received is not inspected by a qualified Quality Assurance/Quality Control Inspector.
- The need for stability and continuity in oversight personnel is important to effective contract oversight.

# Management Comments and Audit Response

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The U.S. Army Corps of Engineers, Gulf Region Division (GRD), provided written comments on a draft of this report; its response is included in full at Appendix D. Overall, GRD agreed with the facts as presented in the report. However, it believes that the report fails to emphasize the environment in which most of the contracting activity occurred and suggests that SIGIR presents every contract task order change, modification, or adaptive technique as an improper deviation from normal contracting practice.

SIGIR believes that it has clearly noted throughout the report the challenging security environment that existed during the execution of this contract and the high cost of security protection. Also, each of these points is prominently addressed in the conclusions and lessons learned sections of this report. Further, the discussion of the frequent contract task order modifications and changes were for the purpose of highlighting the high degree of uncertainty that existed at the time. SIGIR in no way suggests or implies that these were “improper deviations from normal contracting practice.” SIGIR recognizes that there were “fact of life” conditions that presented enormous challenges to clearly defining the scope of the work to be done both initially and during contract execution. However, we note that in “normal contracting practice” the goal is to clearly define the work to be done to minimize the number of contract modifications, which by their nature tend to be non-competitive changes.

Regarding SIGIR’s draft recommendation to ascertain the condition of the facilities built by KBR and turned over to the GOI, GRD stated that its responsibility for project execution concludes upon turnover of the facilities and that it retains no responsibility for the long-term maintenance or use of these facilities. Based on this comment and comments from the U.S. Department of State, Bureau of Near Eastern Affairs, we revised our final recommendation to reflect the current U.S. organizational responsibilities for working with the GOI on oil infrastructure sustainability issues.

GRD also provided technical comments on a draft of this report, which were incorporated in this report, as appropriate.

Further, the U.S. Department of State, Bureau of Near Eastern Affairs provided technical comments, which were incorporated in this report, as appropriate.

# Appendix A—Scope and Methodology

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To accomplish our audit objectives, we visited or held discussions with officials and/or reviewed data from the following organizations:

- USACE Forth Worth District
- USACE Southwestern Division
- USACE Gulf Region Division
- Defense Contract Audit Agency
- Joint Contracting Command-Iraq/Afghanistan
- Multi-National Security Transition Command-Iraq
- Kellogg, Brown, and Root, Inc.
- Foster-Wheeler Corp.

We obtained and reviewed relevant contract, financial, and other information from these organizations relating to the pre-award, award, oversight, and performance of KBR under its contract. This information includes the basic contract, task orders, task order modifications, and scope of work changes; invoices submitted by KBR for work under the task orders; weekly and monthly progress reports on the work performed; quality assurance reports prepared by the USACE Gulf Region Division and Foster-Wheeler; quality inspection reports prepared by KBR; Contract Fund Status Reports; and photographs of the sites both before and after reconstruction. We also reviewed relevant portions of the Federal Acquisition Regulation, DCAA procedures for invoice review, and DCAA and prior SIGIR reports relevant to the KBR contract.

This audit was performed under the authority of Public Law 108-106, as amended, which also incorporates the duties and responsibilities of inspectors general under the Inspector General Act of 1978. We conducted our audit from January to December 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our results based on our audit objectives. Based on those objectives, we believe that the evidence obtained provides a reasonable basis for our audit results.

## Use of Computerized Data

A principal source of financial data on the obligations and expenditures on the KBR contract was the Corps of Engineers Financial Management System. To determine the reliability of the data shown for the KBR contract under review, we crosschecked the information with data in JCC-I/A contract files. We noted that the obligations shown in the Corps of Engineers Financial Management System for Task Order 14 (transportation and mobilization) and Task Order 16 (security) were significantly below the obligations reflected in the contract files. Our further review showed that two modifications for each task order (four in total), totaling about \$74.0 million, or 10.2% of total contract costs, were charged against contract W9216G-04-D-0001

rather than contract W9126G-04-D-0001. We found no other IRRF charges for KBR to the former contract. When SIGIR included these four modifications with the other Corps of Engineers Financial Management System data the total obligations were very close to those reflected in the contract files. According to Corps of Engineers officials, these four entries were errors and should have been charged to contract W9126G-04-D-0001. The effect of this separation of costs is that the costs associated with contract W9126G-04-D-0001, as reflected in the Corps of Engineers Financial Management System, materially result in an understatement of the total costs associated with the KBR oil contract. We have, therefore, included security and transportation costs under contract W9216G-04-D-0001 in the total KBR costs shown in this report.

## **Internal Controls**

We did not examine KBR's internal management and financial control systems. Rather, we relied on DCAA reviews of KBR invoices and accounting and purchasing systems and contract files to identify indications of fraud, waste, and abuse. Also, since the work was largely complete at the time of our audit, we could not monitor construction progress. Further, we were unable to observe the condition of the construction projects at the time of or after their completion. Thus, we relied on available quality assurance reports in the contract file and discussions with key oversight officials for insight on internal controls.

We did review the U.S. government contract management controls to include oversight related to this specific contract, but not for the system as a whole.

## **Related Reports**

The following reports are related to this assignment:

*Key Recurring Management Issues Identified in Audits of Iraq Reconstruction Efforts*, SIGIR-08-020, July 27, 2008.

*Review of Outcome, Cost, and Oversight of Water Sector Reconstruction Contract with FluorAMEC, LLC*, SIGIR-08-018, July 15, 2008.

*Review of the Use of Contractors in Managing Iraq Relief and Reconstruction Projects*, SIGIR-08-003, October 29, 2007.

*Defense Contract Management: DOD's Lack of Adherence to Key Contracting Principles on Iraqi Oil Contract Put Government Interests at Risk*, GAO-07-839, July 2007.

*Award of Sector Design-Build Construction Contracts*, SIGIR Report Number 04-005, July 23, 2004.

## ***Other Reports in the Series of Focused Contract Audits***

*Review of Bechtel's Spending Under Its Phase II Iraq Reconstruction Contract, SIGIR-07-009, July 24, 2007.*

*Interim Review of DynCorps International, LLC Spending Under Its Contract for the Iraqi Police Training Program, SIGIR-07-016, October 23, 2007.*

*Outcome, Cost, and Oversight of Reconstruction of Taji Military Base and Baghdad Recruiting Center, SIGIR-08-004, January 15, 2008.*

*Outcome, Cost, and Oversight of Iraq Reconstruction Contract W914NS-04-D-006, SIGIR-08-010, January 28, 2008.*

*Outcome, Cost, and Oversight of Electricity-Sector Reconstruction Contract with Perini Corporation, SIGIR-08-011, April 29, 2008.*

*Outcome, Cost, and Oversight of Water Sector Reconstruction Contract with FlourAMEC, LLC, SIGIR-08-018, July 15, 2008.*

*Outcome, Cost, and Oversight of the Security and Justice Contract with Parsons Delaware, Inc., SIGIR-08-019, July 28, 2008.*

*Cost, Outcome, and Oversight of Local Governance Program Contracts with Research Triangle, SIGIR-09-003, October 21, 2008.*



# Appendix B—Acronyms

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<b>ACRONYM</b>	<b>DESCRIPTION</b>
DCAA	Defense Contract Audit Agency
DoD	Department of Defense
GRD	U.S. Corps of Engineers, Gulf Region Division
IRRF	Iraq Relief and Reconstruction Fund
JCC-I/A	Joint Contracting Command-Iraq/Afghanistan
KBR	Kellogg Brown & Root Services, Inc.
SIGIR	Special Inspector General for Iraq Reconstruction
USACE	U.S. Army Corps of Engineers

## **Appendix C—Audit Team Members**

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This report was prepared and the audit work was conducted under the direction of David R. Warren, Assistant Inspector General for Audit, Office of the Special Inspector General for Iraq Reconstruction. The staff members who contributed to the report include:

Bonnie Casill

Tinh Nguyen

Nancy Ragsdale

Charles Thompson

# Appendix D—Management Comments

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REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
GULF REGION DIVISION  
BAGHDAD, IRAQ  
APO AE 09348

CEGRD-CG

29 December 2008

MEMORANDUM FOR Special Inspector General for Iraq Reconstruction, US Embassy Annex,  
M-202, Old Presidential Palace, APO AE 09316

SUBJECT: Draft SIGIR Audit Report – Cost, Outcome, and Oversight of Iraq Oil  
Reconstruction Contract with Kellogg Brown & Root Services, Inc. (SIGIR- 09-008)

1. The Gulf Region Division reviewed the subject draft report and provides additional comments for clarity and accuracy in the enclosure.
2. Thank you for the opportunity to review the draft report and provide our written comments for incorporation in the final report.
3. If you have any questions, please contact Mr. Robert Donner at (540) 665-5022 or via email [Robert.L.Donner@usace.army.mil](mailto:Robert.L.Donner@usace.army.mil).

Encl  
as

*Michael R. Eyre*  
MICHAEL R. EYRE  
Major General, USA  
Commanding

**COMMAND REPLY**  
to  
**SIGIR Draft Audit Report – Cost, Outcome, and Oversight of Iraq Oil Reconstruction**  
**Contract with Kellogg Brown & Root Services, Inc.**  
**SIGIR Report Number 09-008**  
**(SIGIR Project 8003)**

**Overall Comment.** The Gulf Region Division (GRD) reviewed the report and generally agrees with the facts as presented in the study. However, we believe that the report fails to emphasize the environment in which most of the contracting activity reported occurred and reports almost every change, modification or adaptive technique as an improper deviation from normal contracting practice. SIGIR did not visit any of KBR's construction projects nor did it review any of KBR's cost controls or other data systems.

**Recommendations:**

SIGIR recommends that the U. S. Ambassador to Iraq take the following actions:

1) Direct the Iraq Transition Assistance Office (ITAO) to lead the examination of the extent to which the GoI is properly maintaining oil projects built by KBR.

**Command Comment.** SIGIR notes in its report that there is only anecdotal evidence that maintenance of U. S. funded and built facilities is neglected. The examination of the extent to which the Government of Iraq is properly maintaining oil projects built by KBR could prove both lengthy in time and expensive in operation. The examination could also raise difficult questions of national sovereignty. As we have previously noted, there are many reasons for poor project maintenance.

2) If the Iraq Transition Assistance Office concludes that project maintenance is lacking, direct the Iraq Transition Office and the U. S. Army Corps of Engineers develop and implement a strategy to facilitate proper training of Iraqi personnel in project maintenance.

**Command Comment.** Remove the reference to the U. S. Army Corps of Engineers. The newly approved Joint Campaign Plan identifies the U. S. Government (USG) in an assist role for providing training and an influence role for Operations and Maintenance (O&M).

Annex B, Task 1.1.1 identifies ITAO as the lead USG organization to assist with on-the-job training (OJT) and formal training programs for workers and facility managers of essential services facilities constructed with USG funding.

Annex B, Task 1.1.5 on Operation and Maintenance identifies ITAO as the lead USG organization to influence and work with the Iraqi Government to assume full ownership and responsibility for operation and maintenance of USG funded projects. The annex does not list GRD as a responsible organization for either task but may execute requirements on behalf of ITAO if it is tasked.

USACE responsibility for project execution concludes upon turnover of properly constructed and operating facilities and retains no responsibility for the long-term maintenance or use of these facilities.

<p><b>SIGIR's Mission</b></p>	<p>Regarding the U.S. reconstruction plans, programs, and operations in Iraq, the Special Inspector General for Iraq Reconstruction provides independent and objective:</p> <ul style="list-style-type: none"> <li>• oversight and review through comprehensive audits, inspections, and investigations</li> <li>• advice and recommendations on policies to promote economy, efficiency, and effectiveness</li> <li>• deterrence of malfeasance through the prevention and detection of fraud, waste, and abuse</li> <li>• information and analysis to the Secretary of State, the Secretary of Defense, the Congress, and the American people through Quarterly Reports</li> </ul>
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<p><b>Congressional Affairs</b></p>	<p>Hillel Weinberg  Assistant Inspector General for Congressional Affairs  Mail: Office of the Special Inspector General  for Iraq Reconstruction  400 Army Navy Drive  Arlington, VA 22202-4704  Phone: 703-428-1059  Email: <a href="mailto:hillel.weinberg@sigir.mil">hillel.weinberg@sigir.mil</a></p>
<p><b>Public Affairs</b></p>	<p>Kristine Belisle  Director of Public Affairs  Mail: Office of the Special Inspector General  for Iraq Reconstruction</p>

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