

Karachaganak Sustainability Report 2010

THE ENDURING BENEFITS OF KARACHAGANAK





Only **0.13%** of the total gas flared

Contracts worth over \$527 million placed with 283 Kazakhstani companies

2010 Safety Plan implemented

Five new wells 14 Workovers Global production 133.7 Mboe



Construction of 4th liquid stabilisation train under completion



Gold Paryz Award from the President of the Republic of Kazakhstan, Nursultan Nazarbayev



Three year

Emissions

Permit obtained

Environmental

New local content reporting requirements introduced

91% of the professional and supervisory roles

and **62%** of the managerial position filled by national staff



New secondary school in Aksai constructed



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OUR COMMITMENT TO SUSTAINABLE DEVELOPMENT

Our commitment to sustainable development is defined in our Sustainability Charter.

We take as our reference the Brundtland Commission's widely acknowledged definition of sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

As a business, KPO considers its contribution to sustainable development to be:

- minimising impacts and maximising opportunities linked to its presence;
- considering the long-term consequences of its decisions;
- engaging its stakeholders in a constructive dialogue; and
- incorporating strong GOVERNANCE and transparency.

This is the third sustainability report issued by Karachaganak Petroleum Operating B.V. (KPO), and is a demonstration of our commitment to sustainable development. In 2009, we became the first company based in Kazakhstan to produce an independently assured sustainability report to international standards. In the sustainability area, we aim to continue to build on this record.

REPORT PROFILE

This report is for the 2010 calendar year. It also includes information relating to 2008 and 2009, in order to allow an informed evaluation of our performance over the years. We intend to issue sustainability reports annually.

REPORT SCOPE AND BOUNDARIES

This report includes KPO's activities as described in the section 'Operating Karachaganak'. The content covers the most material aspects of our environmental, social and economic performance.

ASSURANCE

The data in this report has been independently assured by PricewaterhouseCoopers; their independent assurance report is included on pages 41-42. This process provides both KPO and the reader of the report with additional assurance that the data contained within is accurate.

GLOBAL REPORTING INITIATIVE

This report has been produced in line with the Global Reporting Initiative's G3 guidelines, the *de facto* global model for sustainability reporting. We have kept a C+ application level for 2010. The Standard Disclosure table is available at www.kpo.kz.

STAKEHOLDERS

As part of our normal business practice, we engage and consult with a wide range of stakeholders, including the government, the local community, vendors, employees and civil society. Good relationships with these stakeholder groups are essential to our long-term success, and input from our dialogue with them has helped to shape the content of this report.

Letter from the General Director



It is my great pleasure to present KPO's third Sustainability Report, in which we declare our 2010 performance and review the progress against the targets we set ourselves in 2009.

2010 saw significant changes in the governmental agencies that oversee the oil and gas sector in Kazakhstan. Principal among these changes was the replacement of the Ministry of Energy and Mineral Resources with the Ministry of Oil and Gas. The Authority under the FPSA was also changed from KazMunaiGas to PSA LLC, with the latter being incorporated as a separate company within the Ministry of Oil and Gas.

The development and operation of the Karachaganak field continued throughout 2010. Five new wells were drilled and 14 workovers were completed to streamline the well-stock in the field. The Unit-2 Material Replacement Project was completed during the year and the gas injection compressors were re-wheeled and re-powered. Both projects have increased the efficiency and reliability of the compressors allowing more gas to be injected into the reservoir. In September–October 2010, the total field shutdown planned to be held every two years was completed ahead of schedule and without incident. The construction of the fourth liquid stabilisation train at KPC has continued as expected and remains on target to be completed in 2011.

Safety remains our primary concern with a new Safety Plan developed and implemented for 2010, focussing on Contractor management, Hazard Awareness, Monitoring and Reporting, and Safety Leadership. Throughout the year, all the Senior management in KPO received Safety Leadership training as part of the Safety Plan. The purpose of this particular aspect of the Safety Plan was to reinforce the message that excellence in Safety Performance belongs with the management as well as the workforce.

KPO continued to maintain its high standards of Environmental Protection and on 29 December 2010 the Company was issued with a three year Environmental Emissions Permit. KPO also maintained its ISO 14001 accreditation. Overall gas utilisation in 2010 was 99.87%, which meant that out of the total gas production of just over 15 billion cubic metres (bcm), only 0.02 bcm (0.13%) was flared from the production and processing facilities in the field or during well clean-up operations. This level of gas utilisation is unprecedented in oil and gas operations anywhere in the world.

The ten-year Nationalisation Plan continues to be implemented despite reductions in the training and development budgets. At the end of 2010, all the skilled and clerical positions, 91% of the professional and supervisory roles and 62% of the managerial position in KPO were filled by national staff.

During 2010, KPO maintained its commitment to developing Local Content, responding actively to the changing political, legislative and business climate in Kazakhstan. Contracts worth over \$527 million were placed with 283 Kazakhstani companies for the provision of goods, works and services.

Remaining sections of the Uralsk Gas Pipeline Project were completed in the year such that by year-end final project close-out was underway with an expectation that the completed pipeline will be handed-over to the local authorities in 2011. A new secondary school in Aksai was opened at the start of the new school year in September. In recognition of KPO's involvement in developing local infrastructure, we received the gold Paryz Award from the President of the Republic of Kazakhstan, Nursultan Nazarbayev.

KPO's commitment to Sustainable Development remains undiminished. In 2010, the company continued to build on the initiatives began in 2008 and 2009, and I believe through our joint efforts in many different areas we keep laying a solid foundation which will ensure delivering long-term prosperity for Aksai, the areas surrounding the Karachaganak field, the West Kazakhstan Oblast and the Republic of Kazakhstan as a whole.

Giuseppe Pasi KPO General Director

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HEALTH AND SAFETY			
Our targets in 2010		Actions taken in 2010	Our targets for 2011
Maintain OHSAS Certification		Combined OHSAS/ISO Surveillance audit positively concluded with continued certification	Obtain re-certification in OHSAS 18001
Complete rationalization and improval of the current hazard identification reporting processes	~	Evaluation of existing Hazard Report Process completed. Trial of a New Hazard Report Card and associated tools completed at KPC Unit	 Launch new HSE Observation Reporting combining the hazard reporting and BBS observation systems
Train KPO employees and contractors on hazard awareness		Hazard Awareness Train the Trainer programme developed. 241 Trainers Trained, around 7000 KPO and Contractor employees trained	 Implement a Major Hazard Awareness Training Program to KPO workforce
Implement a programme of training and exercises to improve Level II and III emergency response and improve oil spill containment measures		Training conducted for over 30 members of the Level 2 IMT and Crisis Management Team. Two integrated emergency exercises conducted. KPO General Oil Spill Contingency Plan developed and pending finalisation	• Develop and implement a programme of exercises.Perform a full integrated emergency response and crisis management exercise (including operator mobilisation)
Improve the understanding, visibility, involvement and value of safety leadership within KPO	~	419 KPO and Contractors employees trained (353 KPO, 66 contractors) in Safety Leadership and Intervention Techniques sessions. Cross Departmental HSE Leadership visits programme implemented	Expand safety leadership skill base to those already trained and extend the programme to include health and environment
Improve contractor HSE performance to achieve an alignment with KPO expectations and contractor practices and performance	~	Contractor Management Working Group (CMWG) rejuvenated and detailed action plan developed. Risk identification conducted for high, medium and low value contracts, leading/lagging indicators developed for measuring contractors performance	Finalise documentation related to Contractor Management processes. Conduct workshops for Contract Owners and integrated Contractor/ KPO forums Review, consolidate and rationalise
Improve the effectiveness of current		Programme developed for independent	the HSE audit, inspection and
monitoring and management review methods and processes		assurance audits of Contractor Holder audits. 3 assurance audits conducted in 2010	management tour programme for all KPO
monitoring and management review methods and processes		assurance audits of Contractor Holder audits. 3 assurance audits conducted in 2010	management tour programme for all KPO
monitoring and management review methods and processes ENVIRONMENT Achieve GHG reduction of 55,5 ktonnes CO2e as stretch	2	assurance audits of Contractor Holder audits. 3 assurance audits conducted in 2010 GHG reduction of 34.5 ktonnes CO2e only was achieved due to the delay in implementation of certain GHG reduction measures	Achieve GHG reduction of 46,7 ktonnes CO2e
monitoring and management review methods and processes ENVIRONMENT Achieve GHG reduction of 55,5 ktonnes CO2e as stretch Commence Fieldwide wastewater treatment upgrade project		GHG reduction of 34.5 ktonnes CO2e only was achieved due to the delay in implementation of certain GHG reduction measures Separate detailed designs were developed for KPO b.v. facilities and submitted for State Expert Review	 Management tour programme for all KPO Achieve GHG reduction of 46,7 ktonnes CO2e Implement the upgrade Project Commission two new automatic Environmental Monitoring Stations close to the Berezovka village
monitoring and management review methods and processes ENVIRONMENT Achieve GHG reduction of 55,5 ktonnes CO2e as stretch Commence Fieldwide wastewater treatment upgrade project Update Corporate Waste strategy		GHG reduction of 34.5 ktonnes CO2e only was achieved due to the delay in implementation of certain GHG reduction measures Separate detailed designs were developed for KPO b.v. facilities and submitted for State Expert Review Waste Management Strategy updated	 Management tour programme for all KPO Achieve GHG reduction of 46,7 ktonnes CO2e Implement the upgrade Project Commission two new automatic Environmental Monitoring Stations close to the Berezovka village Complete construction of the waste coorganian unit
monitoring and management review methods and processes ENVIRONMENT Achieve GHG reduction of 55,5 ktonnes CO2e as stretch Commence Fieldwide wastewater treatment upgrade project Update Corporate Waste strategy Implement secondary raw materials segregation project (paper and plastic waste)		GHG reduction of 34.5 ktonnes CO2e only was achieved due to the delay in implementation of certain GHG reduction measures Separate detailed designs were developed for KPO b.v. facilities and submitted for State Expert Review Waste Management Strategy updated Research projecton waste and paper submitted to Environmental Authorities. Paper Recycling Project launched	 Management tour programme for all KPO Achieve GHG reduction of 46,7 ktonnes CO2e Implement the upgrade Project Commission two new automatic Environmental Monitoring Stations close to the Berezovka village Complete construction of the waste segregation unit Evaluate feasibility of recycling opportunities for plastic waste
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OUR PEOPLE			
Our torracto in 2040		Actions taken in 2010	Our terrete for 2011
Expand the Competence Management System (achieve 75% implementation)		Actions taken in 2010 80% Competence Management System for non technical jobs finalised Professional Development Needs Identification carried out on the basis of the competency models process	Fully finalise the CMS system development and launch on-line system to implement and manage PDNI
Develop and implement professional development program for Engineers		Program developed and launched	 Achieve OPITO accreditation for P&M CMS system
Launch OPITO Professional Development scheme for existing technical workforce (Technicians / Operators)	X	The approach was changed and now is based on Competence Management System for technical jobs	 Expand technical CMS framework to other operation departments Introduce coaching scheme
Implement T&D Plan for KPO national workforce		T&D Plan delivered as planned	for nationals development and knowledge transfer
ECONOMIC DEVELOPMENT			
Continue with the nationalisation programme so to achieve results planned for 2010: • Category 1 - 58% • Category 2 - 89%		Nationalisation Plan 2010 Achievements: Category 1 – 62% Category 2 – 91%	Nationalisation Plan 2011 Targets: Category 1 – 64% Category 2 – 92%
Maintain stable increase of purchase of goods and services from		KPO awarded contracts worth over 527 million USD for supply of goods and services to 283 Kazakhstani companies. New Local Content Reporting was introduced in compliance to RoK Government approved Single methodology on the calculation of local content	 Contribute to the continued development of the national market for production of goods and services demanded by O&G sector
needs of KPO		KPO waged a campaign on informing KPO Contractors and Suppliers about new requirements on reporting and unified methodology of calculation the local content in respect of procuring the goods, works and services	 Achieve 20% local content out of total expenditure for purchasing of goods and services of Kazakhstani origin Proactively work for ensuring safety
Ensure contractors deliver to specified standards in safety and quality	~	Vendor development activities performed (provision of information, development of competencies to international standards and requirements of KPO)	and quality standards are met and for the implementation of the new Local Content reporting system and calculation methodology
COMMUNITY			
Issue and implement Social Performance Plan and Social Investment Strategy	~	Social Performance Plan 2010-2011 has been developed and approved in June 2010	 Issue the Social Performance Plan 2011-2012
Launch the KPO Rural Development Programme	×	Talks are still underway with the Republic and the Partners in the Venture concerning the launch of such programme. The expected programme duration is 30 months	 According to the outcome of the discussions, undertake a review of the feasibility of the Programme
Issue an updated Grievance Procedure		The updated Grievance Procedure was approved in March 2010, the grievance booklets published and distributed to the villages with explanation how to submit the grievances	 Monitor the effectiveness of the new grievance procedure and proactively manage all issues raised

Operating Karachaganak

The Karachaganak field is one of the world's largest oil and gas condensate fields. Located in north-west Kazakhstan and covering an area of more than 280 square kilometres, it holds an estimated 9 billion barrels of condensate and 48 trillion cubic feet (tcf) of gas. To date, around 7-8% of the recoverable hydrocarbons initially in place have been produced.



Main Control Room in the Karachaganak Processing Complex

The Karachaganak field is located in a remote and challenging working environment, where the ambient temperature ranges from minus 40 degrees Celsius in winter to plus 40 degrees in summer. The field, the top of which is located at a depth of around 3,500 metres, is some 1,600 metres thick and very complex. The hydrocarbons contain up to 4.5% of highly toxic hydrogen sulphide, as well as carbon dioxide which can, in certain conditions, be highly corrosive.

Since 1997, the Karachaganak field has been developed and operated by KPO, a partnership between four international oil companies: BG Group and Eni (joint operators with 32.5% holding each), Chevron (20% holding) and LUKOIL (15% holding).

In 1997, the partners signed a Final Production Sharing Agreement (FPSA) with the Republic of Kazakhstan that places responsibility for field development with KPO until 2038. The partners pool their combined international experience to share it with the republic so that the maximum value can be realized from the Karachaganak field. Due to Karachaganak's remote location, most of the hydrocarbons produced are exported. Around 80% of liquid production is exported as stabilised oil to Western markets via the CPC pipeline to Novorossivsk on the Black Sea and the Atyrau-Samara pipeline to the Transneft system for onward shipment to Primorsk on the Baltic Sea and other European destinations. The sales, performed either to Trading Affiliates of KPO's Parent Companies or third party buyers, are realised at international price benchmarks. The remaining liquids are exported as unstabilised condensate to Russia via Orenburg. Virtually all of the gas that is produced from the field is either sold as sour gas to Russia or re-injected into the reservoir to help maintain reservoir pressure. A small percentage of the gas is sweetened to remove the hydrogen sulphide before it is used either to generate electricity or provide heating. Only 0.13% of the produced gas is flared in normal production and drilling operations. More details on gas utilization at Karachaganak can be found in the section 'Delivering environmental performance' on page 16.

Achievements obtained by deploying advanced technology include:

- developing an innovative high-pressure, high-volume sour gas re-injection system;
- drilling the deepest multilateral wells in Kazakhstan to date;
- reducing greenhouse gas (GHG) emissions from well testing and operations through the pioneering use of a well-testing equipment and Dry Low Nox (DLN) tuning of gas turbines.

For a description of the field layout, please see pages 21-22.

More than 4,000 people work in KPO today to form a talented and multicultural team. Since the signing of the FPSA, KPO's Parent Companies have invested approximately USD 16 billion into developing the field, applying industry leading technology aimed at maximizing sustainable economic value.



Panoramic view of Karachaganak Processing Complex



2010 PRODUCTION

Global Production	Mboe	133.7
Unstable Liquids Condensate to Orenburg Gas Plant and Mini Refinery	kt	2,346
Stable Liquids Oil and stabilised condensate to CPC and Atyrau-Samara	kt	8,064
Raw gas To Orenburg Gas Plant	Mscm	7,901
Sweet gas production Providing energy for the plant and the community	Mscm	650
Gas injection Not included in global production, as this is not sold	Mscm	6,437

2010 OPERATIONS AND FUTURE GROWTH OPPORTUNITIES

In 2010, KPO produced 133.7 million barrels of oil equivalent in the form of stable and unstable liquids, sour gas, and sweet gas for use as fuel. This was a decrease of about 5.8 million barrels of oil equivalent as compared to 2009 (139.4) due to the scheduled mandatory total field shutdown conducted in September-October 2010. In addition, 6,437 million cubic feet of sour dry gas was injected into the reservoir, a volume equivalent to approximately 43% of the total gas produced. December 2010 marked KPO's best historical field performance which propelled the Venture's daily and monthly production to new record levels.

The principal development activities that KPO undertook in 2010 were to:

- drill five wells and continue its programme of well workovers to optimise production and injection well stock in the field;
- continue the construction of the fourth liquid stabilisation train at KPC;
- continue the capital works planned to upgrade asset integrity;
- continue the de-bottlenecking of the production facilities installed during Phase II / IIM (Maintenance), including re-powering and re-wheeling the gas injection compressors at Unit-2 as well as completing the Unit-2 Material Replacement Project; and
- examine a series of short-term development opportunities that will act as stop-gaps between the current stage of field development and the eventual long-term development and whose primary purpose would be to preserve the current production rate from the field.

Corporate governance at KPO

Good governance is essential for ensuring the sustainability of large-scale investments. In the more complex environment of a joint venture such as KPO, our strong governance, controls and assurance processes are vital to our ongoing success.



ORGANISATION AND GOVERNANCE STRUCTURE

Our organisational structure has been designed to help us meet our business objectives and fulfill our obligations to the Kazakhstan authorities as set out in the FPSA, the Venture's governing document.

KPO's most senior governance body is the Joint Operating Committee, which comprises senior management from the four parent companies, representatives from the Authority under the FPSA,

which is appointed by the RoK Government, and the local Akim from the West Kazakhstan Oblast.

KPO's most senior partner body, the Contractors Committee, comprises representatives from the four Parent Companies. KPO's most senior executive officer, the General Director, represents the Operator companies, BG Group and Eni, at the Contractors Committee.

The General Director is a member of, and works with, the Operating

Committee, which reports directly to the Operator companies, BG Group and Eni. The General Director, the deputy General Director and other directors of KPO are nominated by their respective Parent Companies.

MANAGEMENT SYSTEMS

In all aspects of its activities and in accordance with the FPSA, KPO operates to internationally recognized standards which are implemented in the company through a series of policies, procedures and appropriate best practices. These are embedded in our management systems and include our Code of Conduct, Health, Safety and Environment (HSE) Management System, HSE Policy and five year Strategic HSE Plan, Operations Management System and Corporate Management System Manual.

In 2009, following intensive work conducted by the Operators Sustainability Working Group, KPO issued its Sustainable Development Charter. This charter is intended to lay the foundations and set the guiding principles for KPO's efforts towards sustainable development; and is drawn from international best practice and the Operator companies' experience.

The KPO Sustainable Development Charter is available at www.kpo.kz and on the company's intranet portal.

ASSURANCE

All these systems and policies are subject to audits, which provide assurance to KPO management and the four Parent Companies that effective and efficient processes are in place to identify and manage risk, including sustainability risk, and to ensure compliance with approved processes. Internally, assurance activities are undertaken by a number of groups including Internal Corporate Audit, which audits all of KPO's activities. Specific areas are identified for audit each year using KPO's internal risk identification system, discussions with directors, Parent Company requests and KPO's own Audit Model, which details KPO process areas and the required audit frequency for each area.

In addition to internal assurance processes, our HSE Management System is externally certified to ISO 14001, the internationally recognized Environmental Management System standard. In 2009, we achieved OHSAS 18001 certification for the occupational health and safety aspects of our management system.

External assurance reviews also occur on a regular basis, including an annual Parent Company Audit to ensure KPO complies with its own policies and standards and industry best practices, and regulatory reviews to ensure compliance with legislation of the Republic of Kazakhstan.

COMPLIANCE FRAMEWORK

The Compliance Framework regulates and provides guidance on all aspects of compliance throughout the company and establishes KPO's fundamental values and core beliefs, cascading and applying these throughout the organisation.

The main point of reference within the Compliance Framework is the Code of Conduct. This establishes the core principles, values and behaviours that govern how KPO conducts its business. A revised code was launched in early 2009 by the General Director, and all KPO personnel are obliged to read it. All KPO personnel are also required to read the Conflict of Interest Policy, which was revised and issued at the same time.

Should any employee have a grievance or dispute within KPO, the Grievance Handling Procedure provides details of the procedure to be followed.

The Compliance Framework is managed by the Legal Compliance Counsel and Compliance Coordination Manager both of whom work in the Legal Directorate. KPO has a Compliance Committee, which is chaired by the General Director, and it meets quarterly to review all matters relating to compliance.

STAKEHOLDER ENGAGEMENT

Major stakeholder groups identified by KPO are the RoK government, the company's employees, local and regional communities, vendors and non-governmental organisations representing civil society. A number of departments within the company, such as Government Relations and External Affairs, Community Relations, Corporate Safety, Corporate Environment, Permits & Licensing, Internal Communications, Employee Relations, Local Content Development, engage regularly with these stakeholders.

KPO developed a Government Stakeholder Matrix which identifies the key RoK stakeholders along with the areas of interest, modes of engagement and KPO contacts. KPO has also developed a Political Stakeholder Management Strategy, to describe the Venture's political risks and proposed mitigation strategies.

KPO's Corporate Communications Policy outlines the mechanisms and processes that KPO uses at a corporate level to communicate internally and externally. It also provides lists of stakeholders with an indication of who within KPO is authorised to engage with the external stakeholders. Processes with other relevant stakeholders are determined by several policies and procedures, such as the Stakeholder Engagement Operating Procedure, the KPO Sponsorship and Donations Policy, the Internal Communications Policy, and the Local Content Development Programme.

HUMAN RIGHTS

KPO supports the protection of human rights in its sphere of influence. This commitment is stated in the KPO Code of Conduct. KPO voluntarily tested its compliance with international standards and best practices in 2008 with the support of the Danish Institute for Human Rights and received a good assessment.

EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE

All four Parent Companies are signatories to the Extractive Industries Transparency Initiative (EITI) in Kazakhstan and support the efforts of the government and society to strengthen governance of the revenues generated by the extractive industry by improving transparency and accountability.

Each year, the partners in the KPO venture report to the EITI consolidating body the amounts they have each paid to the Republic.

PROMOTION OF THE KAZAKH LANGUAGE

KPO's official working languages are English and Russian, however increasing attention is being paid to develop and enhance the use of the Kazakh language. A language project team was created in KPO and staffed with professional Kazakh/Russian/English language translators. Messages which are of general interest to staff are issued in the three languages; these include messages about safety, the HSE Policy, the Sustainability Charter, the KPO website and this report. The Karachaganak Newsletter, the company magazine that reaches out to employees and a wide variety of stakeholders, includes a section in Kazakh. The company has developed its own trilingual technical glossary. Kazakh language training courses are available for all employees.



Performance at the corporate event celebrating the Languages Day of the People of Kazakhstan

Health, Safety and Security

At KPO safety is at the core of everything we do. Developing and operating a field of Karachaganak's technical complexity requires every employee and contractor to keep safety in mind at all times. All oil and gas operations carry inherent safety risks: at Karachaganak, this challenge is compounded by extreme temperature fluctuations, the high hydrogen sulphide content in the hydrocarbons we produce and process, and high-pressure sour gas injection.

MANAGEMENT APPROACH

KPO has developed an integrated HSE Management System to provide the framework necessary to meet targets for safety, health and environmental performance, control risks and encourage continual HSE improvement. HSE Management System requirements are described in the HSE Management System Manual, which has been rolled-out across the company. Senior management's commitment to improving HSE performance at KPO is expressed in the HSE Policy, which was revised in 2009 and endorsed by the General Director. The HSE Policy clearly states that

KPO is fully committed to pro-actively managing health, safety and environmental protection and expects everyone to recognise their personal responsibility for HSE and their right to openly report any HSE issues of concern.

This policy applies to all assets owned and operated by KPO and all personnel operating for or on behalf of KPO, including contractors and visitors.

In October 2009, KPO obtained OHSAS 18001:2007 certification for its Occupational

Health and Safety Management System. OHSAS 18001 certification followed ISO 14001 certification of KPO Environmental Management System in 2008. In 2010, ISO 14001/OHSAS 18001 Surveillance audit in KPO confirmed the continuation of certification.

Risk management is an important activity at KPO. We adopt advanced risk analysis techniques and identify risk reduction measures for each KPO facility within the Karachaganak Field.

SAFETY PERFORMANCE IN 2010

In 2010, KPO achieved significant reduction in the number of Total Recordable Injuries down to 15 (24 in 2009) which demonstrates effectiveness of efforts both by the company management and employees. 2010 Total recordable injury frequency performance (TRIF – number of recordable injuries per million man hours worked) was 0.38, 41% lower than in 2009 (0.65 in 2009). The Chart 1 below presents Lost Time Injury Frequency (LTIF) and TRIF for 2010 and the last six calendar years.





Despite the fact that KPO demonstrated clear reduction in number of Total Recordable injuries, seven lost time injuries were recorded in 2010. Lost Time Injury Frequency therefore has increased from 0.13 in 2009 to 0.18 in 2010.

Each incident is critically investigated to identify root causes and develop effective action plans to correct and prevent recurrence of similar incidents. All actions are prioritised by high, medium or low categories and entered into the company-wide web based system where deadlines and actions are traceable and auditable.

KPO Key Performance Indicators are annually benchmarked against statistical data, which is reported to the International Association of Oil and Gas Producers by many world wide exploration and production operations. Comparison analysis demonstrates that KPO's LTIF performance has been significantly lower than average rates reported to OGP in 2009 (Chart 2). At the time of writing the report, OGP data for 2010 were not available.

KPO 2010 SAFETY PLAN

To complement the KPO's existing five-year strategic HSE plan and steer the company's efforts to enhance safety in the operations, KPO developed a 2010 Safety Plan focused on four key areas of improvement: safety leadership, contractor management, hazard awareness, and monitoring and review. The plan has set strategic objectives and annual targets with specific actions and responsibilities assigned. To ensure continuous improvement of KPO's overall HSE Management System, the key focus areas are supported by additional elements such as emergency preparedness, risk management, training and competence, and communication.

SAFETY LEADERSHIP

Strategic Objective: Improve the understanding, visibility, involvement and value of safety leadership within KPO

Safety Leadership and Intervention training sessions were run by external experts to enable and encourage personnel to demonstrate leadership in safety. 419 people were trained (353 – KPO, 66 -contractors). Leadership baseline criteria and guideline were developed and tested in 2010 to measure leadership performance. Once finalised, such criteria will be included into Leadership performance indicators over the next years.

CONTRACTOR MANAGEMENT

Strategic Objective: Improvement of contractor HSE Performance to achieve an alignment with KPO expectations of contractor practices & performance



A Contractor Performance working group has been set up with participants from different departments. The working group was tasked to:

- Assess current contract owners working practices and knowledge across KPO;
- Re-map contract life cycle and define roles and responsibilities of contract owner for each stage of the contract life cycle;
- Develop specific guidelines and tools for contract owner based on world-wide best practices.

Assurance reviews of contractor audits performed by the contract holders were also undertaken. The purpose of the Assurance Program is independent review of the Contractors' HSE Compliance audits carried out by the contract holders to ensure that audits are being performed in a consistent and standardized manner by all KPO contract holders and contractors are effectively assessed in compliance with both Schedule D and HSE Plans requirements. Assurance reviews were also aimed to help in identifying the gaps in the current system of Contractors' HSE audits, establish areas and steps for improvement and provide recommendations for implementation of at least a consistent audit program/plan/scope for the contract holders across the company.

General Assurance audit schedule was developed on the basis of Contractor HSE Audits prepared by KPO contract holders. In 2010, KPO specialists independent from the contract holder departments effectively took part in four reviews selected from the General Assurance schedule randomly.

HAZARD AWARENESS

Strategic Objectives:	Improve hazard awareness for all personnel (contractors & KPO);
	Implement consistent hazard reporting system;
	Improve the efficiency and application of BBS

Hazard awareness of personnel, reporting, analysis and hazard control systems were also included into the Safety plan as dedicated element to enhance proper and timely recognition of the workplace hazards by employees, identify its possible impact and apply control measures against them. Being a proactive tool hazard reporting scheme allows any employee to raise concerns or report observed hazards which provides continuous improvements in HSE and can help in preventing incidents.

Specific focused hazard recognition training materials were developed on hazards related not only to the core oil & gas activities but also to the construction, logistics, warehouse and office activities. To ensure quality and timely delivery of the project it was decided to conduct "Train-the-Trainer" sessions and monitor the effectiveness of the training course and obtain feedback through evaluation forms and make analysis through assessment and site interview forms.

Totally around 7,000 personnel both from KPO and contractor organisations successfully passed through the dedicated training programmes.

MONITORING AND REVIEW

Strategic Objective:

Effective monitoring and management review methods and processes



At the Integrated Emergency Response Exercise

Cross departmental leadership HSE visits have been introduced as a new proactive tool on the basis of the findings of the investigation of the fatality which happened at the end of 2009. Respected company's leaders from different departments and directorates visit the work areas in order to demonstrate their commitment to HSE and interest in people's activity and safety. Two-way communication with the workforce immediately at the workplace is the main idea of these inspections. During the visits the company's and contractors' employees are questioned on the Life Savers familiarity and overall and specific hazards awareness. Totally more than 90 managers and supervisors participated in 44 cross departmental leadership HSE visits in 2010. This tool is being continuously applied in 2011.

Other improvements introduced to support safety performance in 2010 were related to emergency preparedness. In order to actively assess incident potential, company's preparedness for an emergency, effective response in the event of an emergency and ensure continued and effective leadership during crisis management, Incident and Crisis Management Training courses were held for crisis management and incident management teams at all levels of the KPO emergency response function. As part of KPO emergency response and management capability in 2010 KPO completed two integrated emergency exercises, "ECHO" with involvement of three levels of KPO Emergency response structure and "CONDOR". Both exercises were aimed to test integrated actions of all response levels involving numerous KPO functions, formations and services (Security, Emergency and Rescue Teams, Fire Fighters, Medical Teams, Transport Department etc.) These exercises were conducted to determine the level of readiness of KPO resources to a potential event of emergency.

In relation to training and competence, Safety Training and Enhancement Programme (STEP) started in 2009 was continued addressing competency gaps by provision of core skill training and enhanced skill development in line with internationally certified standards in order to add value to the work of HSE personnel and upgrade the existing knowledge and skills of KPO HSE and operational staff. The programme was designed pursuant to the Republic of Kazakhstan government's strategy to harmonise its legal system with international HSE standards. STEP also meets the requirements of the Institute of Occupational Safety and Health (IOSH) and includes a vocational on-the-job programme specifically developed for KPO HSE professionals from recognised international ENTO standards adopted by OPITO, Petroskills and NEBOSH. An individual coaching and assessment program commenced in KPO at the end of March 2010 to allow individuals to use daily activities to develop inspection techniques and enhance knowledge base. 23 HSE delegates started the program.

88 % of IOSH Managing Safely (Steps 1&2) attendees passed the exams and as per the results more than 50 % of delegates demonstrated high or above average scores. Contractor IOSH training program is also being implemented.

ROAD SAFETY

KPO operates in a remote location, which consequently requires its employees and contractors to travel long distances to go about their work. Mitigating the risks associated with road travel therefore remains a high priority for KPO.

Several initiatives have been undertaken to improve KPO drivers' ability to drive safely, even in harsh conditions. These vary from dedicated safe driving courses to safe

driving observation cards provided to passengers, implementation of mobile road patrols and installation of an In Vehicle Monitoring System on all company vehicles. Three language leaflets were distributed among all KPO and contractors' drivers. These initiatives were believed to have supported the reduction in the Road Traffic Incident Frequency (road traffic incidents per million kilometres driven) in 2010, however unfortunately the frequency

Road Safety Campaign function in one of the Aksai schools

HSE Awards - Best Driver Performance



increased from 0.04 in 2009 to 0.09 in 2010.

Road safety in the local community is also an area of concern for KPO. Since 2007, KPO has run road safety campaigns within the community to enhance road safety awareness. The campaign includes a radio phone-in quiz, an annual art competition to design road safety pictures for use as billboards and presentations at schools supported by volunteers from KPO staff.

To supplement the road safety campaigns, KPO undertook a number of infrastructure improvements, including installation of speed reducing bumps and road signs on hazardous road stretches of Aksai, constructing more than 20 bus stop shelters to provide safe waiting areas for passengers and refurbishing the road running alongside the KPO accommodation camp. These improvements completed in 2010 predominantly benefited the citizens of nearby homes and included putting in a dedicated pedestrian sidewalk along the busy road.

2011 HSE PLAN

In 2010, KPO has worked to produce an integrated 2011 HSE Plan incorporating safety, environment and health aspects with no requirement for separate departmental plans. However, there will still be a departmental specific HSE schedule for day–to-day activities.

The 2011 Plan is in line with the HSE strategy set in 2010 and the focus will be to further develop and improve the four elements of the 2010 Safety Plan: Safety (now HSE) Leadership, Contractor Management, Hazard Awareness and Monitoring, Review & Lessons Learned. In the 2011 Plan, Road Safety has also been added as a fifth element. To ensure continuous improvement, we will also continue focusing on improvements in the HSE Management System elements.

SAFETY CULTURE

Raising and enhancing safety awareness and continuing to strengthen the safety culture within the organisation is an area of significant focus and effort.

It is based on a series of minimum mandatory safety expectations identified for seven high-risk activities.

These mandatory expectations underpin KPO's Golden Rules and reflect experience gained from incidents at Karachaganak, our parent companies' assets and across the oil and gas industry.

KPO activities on enhancing the safety culture also reach the communities around KPO. Company specialists run a popular radio programme in cooperation with a local network covering a variety of health, safety and environment issues which are of benefit and general interest to the local community. Topics include electrical safety, fire protection, grass fires, high blood pressure, and more.

PARTNERING IN ASSET INTEGRITY AND INDUSTRIAL SAFETY

In 2010, KPO continued to play a central role in the Kazakhstan Oil & Gas Operators Association (KOGOA). This association comprises operators who are willing to openly discuss and address the safety challenges facing the oil and gas sector. This initiative began in late 2008 under the auspices of the Ministry for Emergency Situations to identify global best practice solutions and implement them in Kazakhstan to improve safety in hazardous industrial facilities. The members of the association met three times in 2010 to progress the agreed key areas of co-operation, which include technical issues directly impacted by RoK regulations and standards (e.g. risk-based inspections, inter-casing pressure, pipeline integrity, training and development). Of note the association held a workshop in Atyrau to review technical training standards and competency assurance management systems for tradesmen with the objective of proposing a new solution that may be adopted by all operators within RoK territories.

Thanks to this mutual effort and the cooperation of the Ministry for Emergency Situations, the Committee under the State Control for Emergency Situations & Industrial Safety and the WKO Emergency Situations Department, KPO continues to realise significant benefits in developing new solutions, having received formal approval of its risk-based asset management practices for Karachaganak Field assets.



Presentation of new ambulances for emergency medical care in KPO

HEALTH

Health management in KPO is aimed at preventing occupational illness, promoting good health and wellbeing of employees and providing emergency medical support to the company. It is conducted in compliance with the RoK regulations on labour protection, as well as best international practice, and requires constant monitoring of personnel and their work and living environments, identification and implementation of adequate prevention measures, and diagnosis and treatment of work-related illness and diseases.

Due to remoteness of the company's facilities, high risk nature of work and seriousness with which KPO address the health of their employees, strong emphasis has been put in 2010 to enhance the medical staff's

First aid and emergency medical treatment is guaranteed at four main clinics active in the operating units at the Karachaganak field and at the accommodation camp. 22 doctors, 16 feldshers and 22 ambulance drivers work in four main teams plus one mobile team working at 24/7 schedule. In 2010, six new ambulances were acquired by KPO to rejuvenate the existing fleet.

ability, utilizing recognised international standards. In particular, two section heads, 22 doctors and 16 feldshers successfully passed the Advanced Cardiac Life Support course (ACLS) and two section heads passed the Advanced Trauma Life Support course (ATLS) improving their familiarity with the latest best practice approaches in the management of the severely injured patient. In 2010, Medical Emergency Response Plan (MERP) was revised and tested through a number of exercises assisting KPO to identify and correct weaknesses in the system for more effective response to an emergency.

Health risk assessments (HRAs) were continued in 2010 for both field and non-field activities. HRA results are used to identify areas for health surveillance as well as to find appropriate remedial measures for reducing health risks. Closure of corrective actions will be ensured by a new Synergi tracking system module that has been introduced.

As a preventative measure, all workers undergo mandatory preliminary and periodic health checks; special medical examinations and pre-shift exams are

also required for certain groups of employees, such as drivers. KPO employees are not permitted to work if they have not passed these medical examinations or have been deemed unable to work because of a health condition.

As a requirement under the Republic of Kazakhstan's sanitation laws, regulations and standards, all personnel working in the field are provided with a health surveillance plan, and KPO has put into place a comprehensive health surveillance programme. Cards for regular medical examinations for preventive treatment

were prepared for employees with revealed diseases. In addition to what is set in the law, a programme of medical screenings of non-field based employees was organised in order to evaluate general health of the workforce not involved in field operations and to increase their awareness of the importance of protecting their health and detecting early signs of illnesses.

The sanitary laboratory performs:

- Mandatory sanitary hygienic monitoring, which includes instrumental measurements of physical factors (lighting, noise, vibration, electro magnetic fields (EMF), electro static fields (ESF) and microclimate) and of workplace air (including hydrogen sulphide, carbon monoxide, nitrogen dioxide, mercaptans, mineral oils, benzene etc).
- 2 Inspections of catering service facilities in the Field and residential camps.
- 3 Workplace assessments including ergonomics evaluation.
- 4 Consultancy support in the industrial hygiene matters.

In 2010, with assistance of the national health authorities, 23 occupational diseases were officially diagnosed, 22 of which were noise induced hearing loss of varying degrees and one case of occupational dermatitis. It can be argued that many of these people might have acquired their hearing impairment in the years prior to 2010. All the affected employees underwent a medical examination and treatment in the Republican Centre of Occupational Health and Labour Hygiene in March-April 2010. The noise induced hearing loss cases have reinforced the importance of hearing conservation in our business and have intensified efforts to ensure employees' awareness of noise and its effects and the need for proper use of the PPE.

In November 2010, ten of the Occupational Health and Hygiene staff completed an internationally recognised Ergonomics Essentials training course. An Ergonomics assessment programme is in the development stage.

The course of Allen Carr's "Easy Way to Stop Smoking" was organised in 2010 and assisted 130 people to address the unhealthy habit. The initiative achieved a 50 per cent success rate after six months. This was a part of KPO's drive to assist employees reduce cardiovascular health risks and adopt a healthier lifestyle.

protect our personnel, physical assets, information and reputation.

KPO security system was verified in 2010 both by the Parent Companies and internally through an Internal Corporate Security Audit completed in November 2010. A new standard concerning the perimeter security of KPO field premises and operating facilities was developed.

New electronic access control system Apollo has been acquisitioned and system will be operational in 2011. Apollo will help bringing on stream a new badge project for the benefit of all KPO employees as well as the contactors.

Dialogue with communities along the pipeline on security issues has continued and proved to be effective as illegal activity prevention measure. Communities have been visited twice in 2010.

Both security managers have completed their security management courses in 2010 provided by ARC at the International Academy for Security Management in the UK. One of our field security supervisors has been successfully graduated with an International Management Qualification Diploma.

A very limited number of incidents involving KPO employees in Aksai and surrounding is to be reported in 2010 including a considerable decrease in the number of theft incidents in KPO compounds.

Illegal pipeline taps

The number of such incidents has decreased in the last few years and none were reported in 2010. KPO continues to be vigilant and has improved its ability to prevent, detect and quickly repair illegal taps with a sophisticated anti-intruder system, state-of-theart inspection technologies and an early response capability that together ensure that health of the community, environment and assets are fully protected.

SECURITY

A secure working environment is essential to the success of KPO. KPO embraces the Voluntary Principles on Security and Human Rights and supports employees to raise significant concerns about any malpractice, improper conduct or unethical behaviour, as well as any attempts to conceal such behaviour.

Master Security Plan issued in 2009 is the guiding management tool for security in KPO. The plan defines policies, procedures and measures, both at corporate and operational facility level, to

Carrying out of laboratory analyses at the KPO Health Department



Delivering Environmental Performance

Delivering leading environmental performance in the technically complex Karachaganak Field is a constant challenge. KPO deploys world-class techniques and innovative technologies to protect the environment in which we operate and to contribute to global efforts tackling climate change.

Protecting the air, soil, water, biodiversity and ecosystems of Karachaganak is the main goal of our Environmental Programme. Environmental impacts are identified at the early stages of any new project through an environmental impact assessment (EIA), and a comprehensive set of monitoring programmes and prevention and mitigation measures are implemented for ongoing operations in accordance with the Kazakh regulations and the rules and procedures set in our Health. Safety and Environment Management System (HSE MS). KPO's HSE MS was developed in accordance with industry best practices, and an ISO 14001 certification was obtained by KPO in 2008. Certification to an international standard requires continuous effort, and our compliance with ISO 14001 was verified again in 2010 by two integrated ISO 14001 and OHSAS surveillance audits undertaken by external certification auditors. Recertification of both Environmental and Occupational Health and Safety management systems is planned for August 2011.

EMISSIONS TO AIR

In the course of recent years, KPO has developed and adopted a variety of innovative techniques and technologies aimed at reducing emissions to air associated with hydrocarbon production processes.

In particular, within the period 2008-2010 KPO has successfully implemented the following emissions reduction measures:

Installation of Unit-2 Bypass Line, which allowed gas when required to be directed from KPC to Unit 3 resulting in the reduction of flaring.

Use of the test separators of production facilities during well testing that allows for the testing of new wells without hydrocarbons flaring.

Installation of equipment to accept and compress flash gas from MTU-400 (Oil Refinery Company located at the Karachaganak Field close to Unit-3). Starting

In 2010, KPO has intensively worked to obtain the Environmental Emissions Permit 2011-2013 and to develop the 2011-2013 KPO Production Environmental Control Programme for the Karachaganak Field and export condensate pipeline.

Since assuming the operatorship of Karachaganak in 1997, KPO has invested over USD 156 million in specific environmental protection measures to improve the environmental performance of the field. Comprehensive disclosure of 2010 performance with reference to emissions to air, water consumption and discharge and waste can be found in the Data Table at the end of this Report.



Over the last three years, the total indicator of air emissions per unit of oil production decreased from 1.17 to 1.02. The minor increase of the emissions per unit of oil production in 2010 in comparison with 2009 was due to the total shutdown of



2010 Emissions and liquids production

process units performed in 2010 for planned safety inspection and maintenance. During the shutdown of process units, production is ceased though some emissions are still generated from the testing processes, which accounts for this increase.

FLARING

Flaring remains a key area of KPO's commitment to further cutting down volumes of emissions and enhancing hydrocarbon recovery. Although only 0.13 per cent of the total gas produced by KPO was flared in 2010 (0.14 per cent in 2009), KPO continues to look for possible ways of maintaining high levels of plant reliability and introduce further emission reduction technologies, especially in the areas of well testing and well clean-up.

The volume of gas flared decreased by about eight per cent in comparison with 2009 (21.7 Mscm in 2009 to 20.03 Mscm in 2010).

In 2010, KPO commenced a feasibility study in relation to recovering hydrocarbon liquids during well clean-up operations. The implementation of this initiative is planned to decrease hydrocarbon liquids flaring by 2800 tonnes per year.



GAS UTILISATION IN 2010

In 2010, KPO achieved a world-class gas utilisation rate of 99.87 per cent (99.86 per cent in 2009) whilst the regulatory target approved within Gas Utilisation Programme is 99.66 per cent.

In 2010, KPO produced just over 15 billion cubic metres (bcm) of gas, of which:

 7.90 bcm (52.64 per cent) was sold via Orenburg. KPO is working to increase the amount of gas sold through this route;

■ 6.43 bcm (42.89 per cent) was re-injected into the reservoir using innovative high-pressure sour gas injection technology;

 0.65 bcm (4.33 per cent) was utilised as fuel gas, providing energy for the process units and for the local community; and

Only 0.02 bcm (0.13 per cent) of gas was flared, making Karachaganak the leading oil and gas condensate field in Kazakhstan for gas utilisation.



Gas utilization in 2010

Drillina

Rig 249





Mobile environmental monitoring station

AIR QUALITY MONITORING

Air quality monitoring in the Karachaganak field and in the settlements located along the perimeter of the field was ensured on the basis of the 2008-2010 KPO Production Environmental Control Programme for the KOGCF and export condensate pipeline, designed in accordance with the requirements of Chapter 14 of Environmental Code and approved by MEP, WKO Department of Committee for State Sanitary-Epidemiological Surveillance under the Ministry of Health of the Republic of Kazakhstan and Atyrau Oblast Department of Committee for State Sanitary-Epidemiological Surveillance of the Ministry of Health of the Republic of Kazakhstan.

The results of this monitoring show that air pollutants concentration in the field, at the sanitary protection zone (SPZ) boundary and nearby villages are below the maximum permissible concentrations (MPC) set by regulators, and that there is no indication that pollutants are accumulating in the air of Karachaganak field or its surrounding area.

In order to further enhance its ability to timely monitor air quality where required, KPO has acquired a second mobile environmental monitoring station (MEMS). Moreover, as a result of the works of the Berezovka Working Group led by the Ministry of Environment, KPO has initiated site identification, design and procurement of two additional fixed environmental monitoring stations to be located in Berezovka village. This will provide additional assurance with reference to the quality of air in the village. Finally, KPO is working in close cooperation with the Ministry of Environment in order to comply with the recent requirement to grant an online access to the competent authorities to monitoring data.

Details of the air quality monitoring conducted at KPO and of the community preparedness activities are reported in the Engaging with the Communities section of this Report on pages 34-35.

GHG REDUCTION STRATEGY

In line with the requirements of the Republic of Kazakhstan and its commitment to the Kyoto Protcol, KPO is committed to reducing greenhouse gas (GHG) emissions, recognised as the main cause of global warming. A GHG Reduction Strategy has been developed that sets the challenging objective of a one million tonne CO2e reduction over five years. The strategy endorsed by senior management focuses on enhanced practices for operational optimisation, application of best practices, targeted capital investment, prioritised high-end returns, promotion of essential baseline studies and formalisation of a data verification process.

Based on the Parent Companies' methodology for calculating GHG reductions, in 2010 the GHG emissions (in CO2eq) decreased by 81 thousand tonnes (2.043 million tonnes in 2009) to 1.962 million tonnes. The GHG emissions per million barrels of oil production increased very slightly in 2010 due to the planned full field shutdown which occurred in the third quarter and which resulted in a reduction in 2010 production when compared with 2009. The GHG savings achieved by KPO are verified annually by an independent third party. In 2010, KPO achieved a reduction of 34.496 tonnes CO2e.

(carbon dioxide equivalent) tonnes per million barrels of production

15.20

Greenhouse Gas emissions



WATER

Conservation of fresh water is one of the important and priority tasks set before the entire humanity as the water is not just feedstock for developing industry but, more importantly, is a primary source of life. KPO strives to optimize its consumption of fresh water by rationally using water resources, adopting conservation measures and recycling where possible.

In 2010, KPO developed regulatory documentation that was approved by the Ministry of Environmental Protection of the Republic of Kazakhstan. Within the framework of this document, the KOGCF water management system was inspected, water consumption and discharge volumes were calculated, water balance sheets were drawn up for specific production sites, maximum-permissible discharge limits for contaminants were established for 2011-2013. Moreover, KPO has in place an internal procedure on implementing control over the accounting of water consumption and water discharge at production facilities, which allows for the effective management of issues related to rational use of water resources in the field, and also complying with the established limits and water use conditions.

Surface and groundwater is monitored to verify water quality, documenting water stream movement, potential pollutant migration and conformity to the sanitation and hygienic standards in force.

GROUNDWATER MONITORING

Under the Groundwater Monitoring Programme for 2008-2010, KPO started to receive information from the eight new observation wells that had been drilled in 2010 around the landfill under construction and irrigation lagoons for rain and melt water from non-contaminated areas of Unit-2, KCC, and KPC. In total, the observation network for the Karachaganak field and Atyrau Terminal comprises 67 water observation wells, where water samples are taken every quarter for lab tests.



Water consumption

Monitoring results suggest concluding that there is no deterioration observed of groundwater quality in the Karachaganak field from surface waste storage sites and effluent ponds over the reporting year.

TECHNICAL WATER

The key source of water supply for operational needs in Karachaganak field is a pond of technical water at Konchubay gully, of which the volume of water abstraction for KPO technical needs for 2010 remained within the volumes of 2009 water consumption and amounted to 354,189 m3.

The volume of water consumption for 2010 amounted to only two thirds of the allowed quantity KPO could have abstracted according to the Republic's Special Water Use Permit for abstracting surface water from Konchubay gully (528,280 m3).

In order to reduce fresh water abstraction the Company applies the required efforts and strives to reuse and recycle treated effluents for technical needs. Thus, in 2010 the company continued working in this direction:

- 1 Technical regulations for reusing effluents in the field for 2010-2013 were developed and approved by the authorities of the Republic of Kazakhstan.
- As a result of actions taken the volume of treated wastewater reused for preparation of drilling mud for well operations, trees irrigation and dust suppression in 2010 amounted to 40,093 m3.
- Putting into operation the system of storm water collection and treatment from the sites of field facilities enables to use treated effluents for irrigation purposes, which contributes to reducing discharge of storm runoffs onto local terrain. In 2010, the reduction of runoffs discharge to terrain reached 30 per cent as compared with 2009.
- In order to improve the waste water treatment quality the works on Phase II of Upgrade of treatment facilities for domestic and oily wastewater at KPO production facilities are ongoing:
 - based on the overall conceptual upgrade project, the separate detailed designs were developed for KPO facilities and submitted for the State Expert Review. Implementation of the upgrade Project is planned for 2011.
 - the works on conservation of the effective treatment facilities for Unit-2 domestic waste water were carried out and vehicle removal of untreated domestic waste water to KCC treatment facilities was performed.

Control over water quality in Konchubai gully and Berezovka River is carried out on a continuous basis and care is taken of the water conservation areas.

POTABLE WATER

The source of potable water supply in Karachaganak field is the Zharsuat acquifer. The volume of KPO water use for drinking needs for 2010 was 184,932 m3; this indicator is lower by four per cent as compared to the level of 2009. Such reduction was made possible thanks to the company's efforts to rationally use water, which included the following steps:

- Water use improvement;
- Compliance with the set limits and condition of water use;
- Maintenance of water facilities and technical devices in operating condition, scheduled maintenance of water line and fittings with the aim to prevent loss of water as leaks;
- Keeping records and timely reporting on the use of water recourses.

WASTE MANAGEMENT

In 2010, the total amount of waste generated at KPO facilities decreased by 24 per cent with reference to 2009, totalling 52,597 tons. This reduction is due to the recycling of waste and to a smaller amount of new wells drilled compared to 2009.



Processing and recycling of bulk waste is carried out at the Eco Centre. The Eco Centre consists of a thermomechanical cuttings cleaning (TCC) facility, which enables the safe and efficient treatment of oil-base mud cuttings; a liquid mud plant (LMP), the processing facility for mixing and treating drilling mud; a liquid treatment plant (LTP), which treats hydrocarbon contaminated water, recycles brines used for work-over operations and reconditions water-based mud used in top hole drilling operations; and a rotary kiln incinerator (RKI), which is used to process oil-contaminated soil and materials other than drilling cuttings.

KPO is now able to recover and reuse expensive base oil, which composes 65 per cent of the oil-based mud,





and to separate base oil and water from cuttings, thus reducing the hazardous characteristics and the volume of waste deposited at the storage site. Construction of the general purpose incinerator (GPI) has progressed. When in operation, the GPI will make it possible to reduce the volume of disposed municipal waste up to 95 per cent. Finally, to allow for the permanent safe disposal of treated drilling waste KPO is currently constructing a permanent landfill site designed to the strictest safety and environmental standards at the Eco Centre.

The summary table below set out the total volume of waste treated at the Eco Centre's waste treatment facilities during 2010.

Waste	Volume (tonnes)
Drilling cuttings (generated at the rig sites) processed in the Thermo-mechanical cuttings cleaner (TCC) to recover base oil for recycling.	15,703
Base oil (primary) recycling for reuse in oil based mud (OBM)	945
Drilling mud and brines recycled at the liquid mud plant (LMP)	10,950
Liquid waste recovered from the drilling process recovered and recycled at the liquid treatment plant (LTP)	6,618
Treated solid waste from drilling and production process treated at the rotary kiln incinerator (RKI) to remove hydrocarbons prior to disposal.	1,332



Recultivation activities at the Gryphon Zone

Furthermore, the following projects are in place currently:

In 2010, a pilot project on separate collection of waste paper from four offices was launched and is successfully being implemented. Waste paper is collected and sent to the Pavlodar Cardboard plant, with which a memorandum of understanding for recycling of paper waste had been signed in 2009.

Research work to find solutions on treatment of household wastewater sludge is being carried out. The work has practical value from an environmental and economic point of view, since the use of sludge as organic fertilizer will prevent the accumulation of sediment on the sludge beds and reduce the payments for its disposal. Also, the addition of sediment will improve soil fertility and provide a better survival rate of seedlings and drought-resistance, as well as frostresistance to the trees.

SPILLS

There was no any spill on soil in 2010.

GRYPHON AREA REMEDIATION

Since 2000, KPO has been restoring the land in the Gryphon area that was contaminated after the blowout of the well 427 in 1987. The intention is to restore the land to an agricultural grade. The total area of contaminated land to be remediated is 49.1 hectares.

In 2010, remediation activities were continued as per the project schedule and 13.1 hectares are left to complete the full scope of the project. This will be completed in 2011.

BIODIVERSITY AND ECOSYSTEMS

Biodiversity conservation has risen rapidly up the economical, environmental and political agenda and now represents one of the most important challenges. In view of signing a number of international agreements (Convention on Biological Diversity, Cartagena Protocol) many countries have commissioned specific research studies on biodiversity conservation and restoration as the biodiversity conservation is the key step in ensuring effective function of the ecosystem.

KPO has not remained indifferent to this issue as the Karachaganak field and nearby areas is the habitat of a large number of flora and fauna representatives, among which there are some rare and endangered species included in the Red Data Book of Kazakhstan.

To this end, in 2010 the Company completed a research study on biodiversity conservation. The scope of the study covered the biodiversity baseline survey and the impact assessment of Field operations upon biodiversity. As outcomes, KPO prepared a draft Biodiversity Action Plan (BAP) and a Biodiversity Standard, aimed at conducting operations in a way that prevents and reduces adverse impact on flora and fauna species in the field.

The purpose of further conservation and restoration activities in 2011 will be to implement the prepared BAP and Standard and monitor their implementation.

Karachaganak at a Glance

AN INTERCONNECTED SYSTEM

85 producing wells and 15 sour gas re-injection wells are currently online at Karachaganak, with a total well stock of 358 wells. Production and processing occurs at the three major units: the Karachaganak Processing Complex, Unit 2 and Unit 3. Approximately 2,000 kilometres of pipelines make up the infield system linking the major facilities and allowing efficient flows of production from the wells and among the units.

KPC

The Karachaganak Processing Complex processes oil condensate from 36 production wells and from Unit 2. Oil and gas are separated through slug-catchers. The oil feed is treated by three stabilisation trains and pumped into the export pipeline to Atyrau for sale on international markets.

The gas phase splits into two streams. One feeds the sweetening plant, providing fuel gas supply for the field's power station and sweet gas supply for the local market. The second stream is directed to Unit 2 for re-injection and/or to Unit 3 for export to Orenburg.

UNIT 3

Unit 3 has been operating since 1984. It separates and partially stabilises gas and oil condensate from 30 incoming wells before exporting via pipeline to a processing facility at Orenburg Processing Plant in Russia.

Unstabilised condensate is also supplied to a neighbouring privately-owned facility for treatment.

UNIT 2

Introducing leading technology has made Unit 2 a unique multi-functional facility. It is able to separate, process and re-inject high pressure sour gas and to produce oil, then sent for stabilization at KPC prior to export. 19 incoming production wells feed Unit 2.

One of the highest pressure sour gas injection systems in the world is in place at Unit 2. Three compressors are capable of injecting gas at a pressure up to 550 bar with a high H2S content (up to 9%).

This gas injection scheme has been proving to be successful as it provides partial pressure maintenance, improves liquid recovery and also eliminates the need to extract sulphur, which delivers important environmental benefits.

ECO-CENTRE

The KPO Eco-Centre consists of a thermo-mechanical cuttings cleaning (TCC) facility, which enables the safe and efficient treatment of oil-base mud cuttings; a liquid mud plant (LMP), the processing facility for mixing and treating drilling mud; a liquid treatment plant (LTP) enabling treatment of hydrocarbon contaminated water, recycling of brines used for work-over operations and reconditioning of water-based mud used in top hole drilling operations; and a rotary kiln incinerator (RKI) used to process oil contaminated soil and materials other than drilling cuttings.





Investing In Our People

Developing and operating the Karachaganak Field requires thousands of dedicated and capable employees in a wide range of disciplines, from petroleum engineers and technicians to accountants and logistics specialists.

Our people are the key to our success. We invest massively in the development of our national workforce using the international expertise of our partners in the venture, appropriate classroom training and renowned educational institutions. We apply an individualised approach to employee needs in training and development, offering customised development activities including vocational in-role training, assignments to parent companies and opportunities for external training for new skills and qualifications.



The main goal and challenging target for KPO in the forthcoming years is retaining the skills and knowledge grown internally in order to guarantee the future of the company and safe and effective production process.

At the end of 2010, 4142 people were working at KPO. During 2010, the number of expatriate and national staff decreased by more than 200 people as capital projects, such as the Unit-2 Material Replacement Project, were completed, and the number of staff working in the Project Development Directorate was reduced. The implementation of the company's nationalisation plan also contributed to the reduction in the number of expatriate staff. At the end of 2010, the decision was taken to relocate the Project Development Directorate from London to Kazakhstan, in order to further enhance the effectiveness of the KPO organisation in its liaison with the technical authorities.

TRAINING AND DEVELOPMENT

KPO offers an extensive training and development programme aimed at:

 ensuring that employees meet the competency (skill, knowledge) requirements in order to do their jobs effectively;

developing employees to be able to take on larger roles with more responsibilities within the organisation, supporting the business with talented and motivated persons to fill critical positions.

In 2010, some 210,861 hours of training were delivered to national staff (on average 63.3 hours of training per attendant). In terms of average expenditure, this corresponds to USD 4,226 per attendant spent on training and development in 2010.

Such an approach requires a continuous evaluation of development needs across the business, but it enables us to tailor development plans to the specific needs of an individual in a specific company area, thus maximising results. This also ensures a robust control over the implementation of the training and development plan and the use of the training and development budget, and enables fair and efficient monitoring of the employee's improvements in effectiveness and competence. The most widespread training method in the company is the use of short- and long-term training courses aimed at providing employees with professional skills they need to do their job.

In 2010, KPO introduced a new scheme of development of HSE competence and culture amongst KPO and contractor personnel - Safety Training and Enhancement Programme (STEP) for HSE professionals. The program was developed in collaboration with the Institute of Occupational Safety and Health (IOSH), KPO Field HSE, and Training and Development Department. It took over six months to develop the programme. Over 120 KPO employees and 167 representatives of KPO core contractors completed the programme during 2010. The STEP programme will enable KPO to adhere to the government strategy of the Kazakhstan Republic of harmonizing its legal system to accommodate international HSE standards. In addition, the STEP initiative manifests the KPO compliance to the OSHAS 18001 safety accreditation for continuous improvement and training of the KPO workforce in



Contracts & Procurement employees having obtained CIPS certificates

health and safety that we have been targeting over the past year.

Another facet of training and development at KPO is the expansion of opportunities to attend internationally certified programmes. KPO general strategy depends on the introduction of international practices and technologies. Employees not only need to possess the skills required to operate new equipment or work with new technologies, but also to acquire the advanced knowledge required by the industry at the international level. Besides production-related needs, programmes are also instrumental in personal development, staff motivation and retention.

GRADUATE DEVELOPMENT SCHEMES

At the Foreign Investors Council session on June 4, 2010 the President of the Republic of Kazakhstan N.A. Nazarbayev set the task to deploy international standards for high and vocational education. At Karachaganak we are proud to have been working successfully in this direction since 2008.

KPO graduate development programme is continuing to meet the forecasted needs and requirements of manpower planning within the company. For a number of years KPO has been developing different ways for graduates of Kazakhstan universities to join our company, develop themselves and contribute to future growth.

These programmes are aimed at developing specialists able to fulfill the resourcing needs of KPO's technical departments, both from a qualitative and quantitative point of view. Through tailored theoretical and practical training and on-the-job experience, young graduates are provided the competences required working in the oil and gas industry, thus contributing not only to KPO's success, but also to the creation of a talented Kazakhstan workforce able to secure sustained growth.

Professional Development Programme for production operators and maintenance technicians launched in KPO in 2008 is based on the OPITO Oil & Gas Academy's Modern Apprenticeship Scheme. KPO is the first company in the CIS to run OPITO certified training which is recognized internationally. Once completed, the training scheme provides opportunities for high-performing individuals to secure employment with KPO and for KPO to hire qualified operators and technicians. Each year we select a small group from this pool to specialize in well operations.

In 2010, KPO not only continued to develop technician and operators, but also introduced the OPITO approach for engineering positions. During the year, the following results were achieved:

65 trainees for Production and Maintenance departments successfully completed the OPITO Professional Development programme and were assigned to the relevant departments for the on-the-job training;

35 trainees for engineering positions finished the first level of theoretical programme and moved to on-job-training in order to understand the specific processes of KPO production. In 2011, they will come back to classes and complete the study programme for further joining KPO as internationally certified discipline engineers;

10 trainees finished the basic theoretical level of OPITO schema (BU) and were assigned to a theoretical course for Drilling Supervisors developed by ENI Corporate University and KPO.



KPO employees awarded with STEP certificates at the official ceremony

KPO SCHOLARSHIP PROGRAMME

Since 2003, KPO has supported talented students from Kazakhstani universities who have chosen a field of study related to the oil and gas industry. Scholarships are advertised at the universities, and a dedicated internal KPO committee evaluates applications. In 2010, 14 students were granted scholarships worth USD 3,000 each. To date, 128 students have received scholarships from KPO.

Scholarships are also offered to KPO employees and their children as a means of supporting their desire to advance their education. In 2010, 16 employees and 27 children of employees received scholarships from KPO for a total of USD 129,000. Since 2002, when this programme started, 95 employees and 206 children have received scholarships for a total of USD 821,000.

COMPETENCY MANAGEMENT SYSTEM DEVELOPMENT

The complexity of KPO activities requires robust competence management in order to ensure that KPO employees' level of competence complies with the established standards. From 2008 KPO has been implementing the competence management system as a core approach in people's development.

The model and development need identification system are finalized for all supporting and non-technical jobs within the company. In 2010, KPO targeted to introduce the system within the Operations/Maintenance departments, and in 2011 will follow execution of the KPO Competency Management System (CMS) for Production and Maintenance technical staff.

A robust Competency Management System will provide real and lasting benefits to KPO, its employees and the Republic of Kazakhstan. These benefits include:

- Provide the workforce with the skills, knowledge, and experience to carry out their tasks safely, efficiently and consistently;
- Improve staff performance and motivation;
- Tools to support staff development within the organization;
- Reduction in severity and frequency of incidents and accidents;
- Improve production.

138 technical standards have been developed specifically for KPO, and National Assessor training is in progress to provide internationally qualified personnel to apply these standards. Over 13,000 assessments are scheduled to be performed within the next two years.

KPO is in process of obtaining OPITO's approval of its Competency Management System, and if successful we will be the first Oil and Gas Exploration and Production company in Central Asia to achieve this recognition.

EMPLOYEE RELATIONS

In KPO the rights of workers to associate and collectively negotiate working conditions are fully respected. Employees working in KPO are represented by two Trade Unions working under the Collective Agreement signed between KPO and Trade Unions. The Collective Agreement provides a framework under which issues brought by the employees and Trade Unions are discussed. The Collective Agreement contains as well a number of social benefits for KPO employees and is applicable to all KPO employees irrespective of whether they are members of the Trade Unions. Terms and conditions of the Collective Agreement are reviewed regularly, which in practice is not less than every three years.

Finally, KPO also has a confidential whistleblowing policy which is captured through the Code of Conduct. Following a review of KPO's compliance policies, the company is investigating ways to make this particular aspect of employee relations independent of KPO, that is, it will be operated by an independent third party.

INTERCULTURAL COMPETENCE DEVELOPMENT PROGRAMME

Intercultural Competence Development programme is the continuation of an initiative started by KPO with its

sponsorship of the conference for Cultural Diversity and Intercultural Communication held in 2007 in Astana. The programme is aimed at maximizing the benefits of having a diverse workforce and turning cultural diversity into an asset.

Organized in three phases, the Intercultural Competence Development programme will support KPO employees and managers in developing their ability to work successfully in a multicultural environment.

Phase I of the programme was completed in 2009. In 2010, under Phase II about 1,450 KPO employees undertook the training course on Improving Intercultural Communication within KPO. In Phase III, the programme aims at sharing KPO's experience with government ministries and authorities, thus creating a sustainable "virtuous circle" of communication between KPO and its partners and contributing to the Republic of Kazakhstan's efforts to build a multicultural society.

Immediate post-programme evaluations of the training have been largely positive for both managers and employees. A comparative pre/post study of changes in KPO managers' intercultural competence and a qualitative study of changes in managers' perception of cultural differences will enable KPO to measure the efficacy of the programme as it proceeds.



Aliya Subkhankulova awarded with NEBOSH International Certificate

Contributing to Economic Development

Maximising the value of the Karachaganak Field to Kazakhstan means more than generating revenues and taxes through oil and gas production. It means forming long term, durable partnerships for economic development.



New local content law and reporting

KPO recognises the significance and the necessity of the efforts undertaken by the Republic of Kazakhstan to develop local content and supports strategic efforts to systemise the regulatory framework.

KPO has been represented in the Foreign Investors Council Local Content Working Group and took a serious and proactive role in the discussion of the new Single Methodology concept for calculating local content as well as to the draft concept statement.

Single Methodology for calculating local content was approved in Kazakhstan as a means of increasing the local content in goods, works and services purchased by subsoil users. Relevant legislation was amended to establish requirements for subsoil users for reporting on local content.

To ensure compliance, awareness and effective reporting on the local content, KPO organised training seminars on new Single Methodology of calculation for contractors providing services and goods for the needs of KPO.

SUPPORTING KAZAKHSTANI BUSINESSES

Local suppliers' capacity building through sustainable development and skills transfer are central to the way KPO works. KPO aims to continue to develop the competencies and capabilities of local companies to meet international standards and oil and gas industry requirements.

Karachaganak's vendor development initiative, in place since 2001, has resulted in the registration of over 3,000 Kazakhstani vendors. During 2010 contracts for over USD 527 million have been concluded with 283 Kazakhstan companies for the provision of goods, work and services.

KPO representatives at the 2010 Local Content exhibition in Almaty

In 2010, the Kazakh Content in Karachaganak made up to 17 per cent (USD 86 M). Kazakh content percentage was calculated according to the new Single methodology for calculating Local Content in purchasing of goods, works and services, where actual expended amounts are taken as the basis for calculation.

KPO actively promotes vendor development through a range of initiatives like assisting local businesses in developing their key staff through international qualifications in environment, quality, health & safety, finance and project management. KPO benefits from development of local companies as this creates a sustainable business environment delivering direct benefits to all local suppliers.

In 2009, ten WKO based major local manufacturers successfully achieved an integrated implementation of ISO 14000 and OHSAS 18000 owing to assistance provided by KPO.

KPO also continued hosting a series of monthly workshops for Kazakh vendors. The objective is to improve relationships with the local business community and assist them in overcoming barriers such as being able to comply with KPO's standards and conditions for HSE performance. Through these workshops, KPO achieved a better understanding of its needs by suppliers and improved skills of local vendors, which represents the key driver for enhanced business cooperation.

> In an endeavour to contribute to the continued development of the national market for production of goods and services demanded by oil and gas sector and encourage inward capital investment and skills and technology transfer, the Kazakhstan Association of Oil and Gas Companies and three major oil and gas operators in Kazakhstan, NCOC, TCO, and

KPO, jointly hosted a waste management supplier forum in May 2010 in Atyrau.

The co-hosted forum was arranged to help attract the latest waste management technologies and solutions to the Kazakhstan oil and gas sector, and develop local service providers. The organisers aimed to promote foreign investment in waste management sector of the Republic of Kazakhstan (RoK), and encourage international best practices, knowledge and experience to be shared with companies in Kazakhstan.

The event offered valuable insights into the RoK's strategy for managing waste produced by the energy sector. It highlighted RoK waste management regulations and requirements, and environmental aspects of RoK waste management operations. The organising companies also shared their requirements for contracting and procurement, as well as procedures for the pregualification and evaluation of waste management companies.

The forum brought together some 250 people, including representatives from the RoK ministries of environment, oil and gas, industry and new technologies, and from KazMunaiGas (KMG), the Akimats of Atyrau, West Kazakhstan and Mangistau oblasts, as well as Kazakhstani and international waste management experts.

On 31 March -1 April 2010, KPO participated at the Republic meeting on Kazakh Content and at the Exhibition "Local Content 2010"

on development and promotion of Kazakhstani goods held in Astana. Seminars on the issues of electronic state procurement and legislation with regard to Local Content were held in the course of the meeting and exhibition. 174 companies including local manufacturers, national holdings and development institutions, national companies and enterprises, subsoil users and foreign companies participated in the event.

KPO received a Letter of Gratitude from the Deputy Prime-Minister and Minister of Industry and New Technology A. Isekeshov for active participation at the Exhibition «Local Content - 2010».

INVESTING IN LOCAL PEOPLE

Workforce nationalisation is a crucial building block in the creation of KPO's economic legacy, maximising the number of local employment opportunities and investing in the workforce of Kazakhstan. We have met the targets set by the Republic of Kazakhstan and already set new benchmarks for the next 10 years that will see a Kazakhstani management team steering the future course of Karachaganak.

In 2010, 20 additional senior positions at KPO were nationalised. At the end of 2010, local employees filled all of the venture's skilled and clerical positions and 91 per cent of professional and supervisory roles. At the managerial level, 62 per cent of positions are filled by local employees.

New targets set in the next Nationalisation Plan include:

Category	Description	2010	2018 Plan
1	Management	62%	70%
2	Professional staff and supervisors	91%	95%
3	Technical staff	100%	100%
4	Support and clerical staff	100%	100%

The KPO nationalisation strategy is closely linked to the main strategy of the company. In order to deliver on nationalisation targets, while at the same time improving organisational capabilities particularly in the area of management, the strategy relies not just on the development of knowledge and technical skills, but in the overall management capabilities and experience of the individuals involved. Recognising the critical importance of development of national employees, KPO has established an approach for transitioning the most



talented Kazakh nationals into an increasing number of business critical managerial roles.

The strategic approach of HR towards the nationalisation process basically boils down to the effective planning and implementation of the local staff training and development process rather than the mere replacement of expatriate personnel with Kazakhstani staff. This will in its turn ensure that all KPO operations are carried out at the highest level and in accordance with international standards. This will allow KPO to meet the objectives set by top management with the highest possible level of quality. Given the company management focus on Category 1 Nationalisation and our commitment to reach 70 per cent in the next 10 year nationalization plan, KPO introduced a program aimed at the enhanced development of Kazakhstani staff. Its aim is to identify KPO's high potential national staff, develop them to their full potential in a defined time frame and to report on progress against measurable targets.

and the Western Kazakhstan oblast authorities, and a Memorandum of Intent was subsequently signed in the presence of the President of the Republic of Kazakhstan Nursultan Nazarbaev.

The Karachaganak-Uralsk Gas Pipeline project was divided into three start-up complexes with the intent to supply gas, first of all, to those populated areas where no any gas supply system had been before. Construction is conducted by a local company.

Construction of the first start-up complex of the Gas Pipeline going from Uralsk City to the village Novopavlovka, including new AGDS and supplying gas to the populated areas of Terektinsky District of WKO, was completed in December 2009.

Construction of the second start-up complex, including 116 km 10" gas pipeline and AGDS in the village Dzhambeity and supplying gas to the populated areas of Syrymsky and Karatobinsky Districts of WKO, was completed in June 2010.



Opening of 54MW Gas Turbine Power Station in Uralsk

CONTRIBUTING TO MAKING ENERGY AVAILABLE FOR REGIONAL DEVELOPMENT

The Karachaganak-Uralsk gas pipeline that will ensure stable supply of environmentally clean fuel to more than one hundred thousand residents of five WKO districts is currently approaching its completion.

This achievement is significant both from economical and social perspectives since not only does it represent the tangible result from the co-operation between the Republic of Kazakhstan and the Karachaganak Partners, but it is also a powerful incentive for the continued development of the region. The Karachaganak-Uralsk gas pipeline is an important social project, which will support the development of Kazakhstan's domestic gas market, as well as encourage further industrial growth by delivering much needed energy to communities within the Western Kazakhstan Oblast.

Construction of the pipeline had been agreed by the Karachaganak partners, the Republic of Kazakhstan

Construction of the third start-up complex, including new AGDS and gas lines to supply gas to Uralsk city and Aksai town and also the populated areas in Burlinsky and Zelenovsky Districts of WKO, is coming to a close.

The entire Project is planned to be completed by middle 2011, after the necessary integrated commissioning stage of the three start-up complex and the handover to final owner, activities that are expected to be completed by middle 2011.

The estimated budget for construction project of Karachaganak-Uralsk gas pipeline is about USD 300 million.

Finally, portions of gas extracted at Karachaganak and electric power produced by KPO are delivered to the local market, thus contributing to a secure energy supply in the region. Sweet gas is provided to a gas distribution company for local consumption in nearby villages and in Aksai. Gas is also provided for electric power generation and distribution in the West Kazakhstan oblast. Though certain volumes of Gold Paryz Award received by KPO for achievements in social development

gas supplied for power generation were set already in the FPSA, KPO voluntarily agreed to expand delivery to fulfil local demand. The total volume of sweet gas supplied in 2010 was 134,020 Mscm.

As for electric power, in 2010 about 390 million KWh produced at the KPO power plant were sent to the country's national grid.

SUPPORTING SOCIAL INFRASTRUCTURE

Under the terms of Annex 5 to the FPSA, KPO provides USD 10 million per annum to the development of social infrastructure projects identified by the West Kazakhstan Oblast Akimat in accordance with social development priorities. These projects mostly take place in the regional capital, Uralsk, and include

NOLUE

Social Projects (Uralsk)

Construction of	Description	Budget allocated in 2010 (Million USD)
Construction of electrical networks from the constructed 54 MW gas turbine power station in Uralsk <i>Completed</i>	This project is a part of Industrial Development Program of the Oblast that will provide power supply to residential areas of Uralsk and will remove power shortages of West Kazakhstan Oblast. The project will enable reduction of power costs reducing power import from Russian Federation.	15.1
Construction of heating networks from the constructed 54 MW gas turbine power station in Uralsk <i>Ongoing</i>	This project is a part of Industrial Development Program of the Oblast. The heating lines will provide heating supply to residential areas of Uralsk and will remove heating supply shortages in Uralsk. The project includes replacement of old heating lines in order to provide proper and save operation of old / existing heating lines during heating season.	13.3
Construction of Celebration Palace in Uralsk <i>Ongoing</i>	In order to broaden ability for performance of festive events it is planned to build a complex compatible with modern architectural requirements, sanitary and construction norms. The Celebration Palace will be one of the symbols of Uralsk.	4.8
	Tota	33.2



Presentation of the new Aksai School to WKO Authorities

building schools, nurseries, hospitals and cultural and sporting facilities.

In 2009, the RoK Government and KPO Joint Operating Committee (JOC) doubled the amount of funding for social and infrastructure projects, from USD 10 million to USD 20 million.

KPO receives a list of the projects set by the WKO Akimat and ensures the design, contracting, project management and delivery of the works, which are then handed over to the Republic of Kazakhstan. All social projects are realised by Kazakh companies.

In 2010, KPO completed construction of kindergarten in Uralsk that was initiated with funds allocated in 2009. The kindergarten satisfies the demand for such a service in a new micro-district of Uralsk. It accommodates 280 children (12 groups) and was provided fully equipped. KPO has also completed construction of electrical networks and commenced the building activities of heating networks from the constructed 54 MW Gas Turbine Station in Uralsk. Development of the design for the Celebration Palace in Uralsk was also initiated. Data in the tables on pages 30 and 32 are reported as they appear in the JOC Resolutions approving the allocation of funds.

In 2008 and 2009, the RoK Government and the KPO Joint Operating Committee exceptionally allocated USD 10 million to improvement projects in the town of Aksai, where much of KPO's administrative activity takes place (approximately 30 kilometers from the Karachaganak field).

With 2008 funds, and in accordance with the projects identified by the district authorities, KPO completed in 2009 the refurbishment of roads and a kindergarten, and purchased medical equipment for the local hospital. Also, KPO constructed a secondary school for 900 children in micro-district 10 of Aksai, which was inaugurated at the beginning of the 2010/2011 school year in September 2010.

Funds allocated for 2009 could not be spent in 2009. With these funds, in 2010, KPO started significant projects to provide an additional source of potable water to the town of Aksai and improve its heating system. Two road repair projects were completed and one is still on going.

Aksai Social Projects

Construction of	Description	Budget allocated in 2010 (Million USD)
Secondary School for 900 children in micro-district 10 of Aksai <i>Completed</i>	The School is aimed to accommodate 900 children from micro-district 10 and shabby-house district adjacent to Czech Camp. The School will consist of 36 classrooms, 2 gymnasiums, conference room, canteen and amenity block. Budget allocated for 2009 was 8 Million USD.	0.21
Construction of water supply line Akbulak-Aksai <i>Ongoing</i>	Water supply line 42 km in length will be built in order to provide potable water for the houses in Aksai. In the framework of the project it is also planned to install 2 water tanks 500m ³ each, UV unit and pump stations.	5.26
Complete refurbishment of central boiler house in Aksai <i>Ongoing</i>	The project is aimed to improve heating supply to micro-districts of Aksai. The project includes supply and installation of a new boiler, internal repair of boiler house.	1.05
Reconstruction of boiler house in microdistrict 10 of Aksai <i>Ongoing</i>	The project is aimed to improve heating supply to micro- district 10 of Aksai. The project includes replacement of two boilers and construction of new boiler house building.	1.07
Construction and reconstruction of road base and surface of car parking in front of communal market of Aksai <i>Completed</i>	The project is aimed to improve condition of the road base and surface of car parking in front of communal market of Aksai. The Scope of Works included replacement of top course, installation of fence, improvement of sidewalks and installation of curbs.	0.16
Construction and reconstruction of road base and surface of Jubileynaya Street of Aksai <i>Completed</i>	The project is aimed to improve condition of motor road and sidewalks at Jubileynaya Street. The scope of works comprised roadside broadening, replacement of top course, installation of curbs, construction of road shoulders and sidewalks, installation of road signs.	0.83
Repair of Sovetskaya Street of Aksai <i>Ongoing</i>	The project is aimed to improve condition of motor road and sidewalks at Sovetskaya Street. The scope of works comprised replacement of top course, installation of curbs, construction of road shoulders and sidewalks, installation of road signs and installation of electric poles.	1.3

Total

Engaging with the Communities

KPO is committed to being a good neighbour of the communities around its operations and to support the efforts of the local authorities to pursue their development goals. We therefore work to avoid or minimise impacts from our activities, maintain effective communications and relationships with interested and affected stakeholders, and create opportunities to enhance benefits to society.

Village

Council

village

meeting at

the Zharsuat



A STRATEGIC APPROACH

The reference framework for KPO activities in this area is set by the Social Performance Policy, Standards and Operating Procedures, introduced in 2008 and inspired by the Performance Standards of the International Finance Corporation. Though our social performance extends to reach all our society stakeholders, special (Village Councils) to public hearings and ad-hoc meetings with local authorities, NGOs and other key informants.

The Village Councils also identify priorities for KPO's social investment in the villages. This dialogue enables KPO to respond to issues as they emerge and develop opportunities, which benefit both KPO and the neighboring communities.

In 2010, the Village Councils met a total of 21 times. During the meetings the Village Council representatives and KPO Community Relations staff discussed issues of concern and the social, educational and infrastructural programmes to be implemented with support from KPO.

Finally, two public hearings were held in 2010 in order to discuss the Environmental Impact Assessment for the Karachaganak-Uralsk pipeline construction project and the Landfill of industrial solid waste project.

Handling complaints

KPO has a formal policy in place for handling complaints. Every resident of the neighbouring villages has the right to raise a complaint, either

Village Councils covering the eight villages closest to the field have been set up in the four rural districts around the Karachaganak Field. These consultative bodies were established in 2005 with a Memorandum of Understanding. Locally trusted village residents, representatives from the local authorities and KPO experts meet regularly on an ad-hoc basis to discuss issues of interest or concern and receive updates on current and planned KPO activities.

attention is given to our area of direct impact, defined by the proximity to KPO operations. In June 2010, KPO issued its 2010-2011 Social Performance plan, with the purpose of supporting the delivery of KPO business objectives by securing alignment with community and Government objectives and managing our relevant operational and project risks. Through this, KPO aims to contribute to the socio-economic aspects of the broader sustainable development agenda of the neighbouring communities and the Republic of Kazakhstan.

BUILDING A CONSTRUCTIVE DIALOGUE

Consultations are a fundamental pillar of KPO activities in the social performance sphere. Different tools are adopted, ranging from formalized consultative bodies verbally to a KPO Community Liaison Officer or in writing using dedicated forms and boxes installed in all the villages. The company will then investigate the complaint and make a proposal for settlement. In 2010, no significant complaints were raised through this mechanism. This could

be due to the fact that a less formal way of filing complaints is preferred, namely by direct appeal to the KPO Community Liaison staff that often visit the villages, and that few operational activities directly impacting the communities were undertaken in 2010.

Nevertheless, in order to secure effectiveness of the compliance mechanism, in 2010, KPO reviewed its Grievance Procedure and discussed the proposed changes at the Village Councils. Community brochures describing the grievance procedure and the process of handling complaints were printed. In December 2010, meetings with the communities of the five rural districts have been held to present the revised Grievance Procedure and disseminate the printed brochures.

MONITORING AND PREVENTING IMPACTS ON THE LOCAL COMMUNITIES

A Sanitary Protection Zone exists around the Karachaganak Field, with the aim to act as a buffer zone between the industrial plant and the communities and protect human settlements from potentially hazardous impacts of industrial activity. The boundaries of the SPZ for the Karachaganak Field, which are defined by the Ministry of Health, are currently of 5 km. An update of the design project of the boundaries of the SPZ is due to commence in 2011, following changes in the relevant legislation and a request from the Environmental Authorities.

Compliance with the environmental quality parameters set by the legislation is ensured at KPO thanks to a thorough environmental monitoring programme. This programme enables the timely detection of any abnormal occurrence potentially constituting a threat to the environment and to the local communities.

In particular, air quality monitoring is conducted:

- At the source of emissions in the Karachaganak Field, where permanent gas detectors are installed at all KPO production facilities. Should the concentration of pollutants exceed the Maximum Permissible Concentrations (MPC), an emergency signal will activate;
- Within the Karachaganak field and at the boundaries of the Sanitary Protection Zone, with 12 fixed automatic environmental monitoring stations (EMS) installed, continuously in operation and integrated into the automatic system of environmental monitoring. Automatic environmental monitoring system performs a dual function acting as a notification system and a system of collecting data on air quality in the area of the Karachaganak field. The notification system activates an alarm when the level of pollutants in the air emitted as a result of production activities at units exceeds the relevant allowable limits. These stations are equipped with ultrasensitive gas analysers which gather real-time data on air quality in terms of main pollutants, such as hydrogen sulphide (H2S), sulphur dioxide (SO2), nitrogen dioxide (NO2) and carbon monoxide (CO) content. Daily air samples are taken by Gidromet, an independent state-licensed company, at the boundary of the SPZ of 5,000 m, which is the current SPZ valid for KPO;
- In nine villages around the Field, where stationary posts are installed and instrumented with air sampling equipment that routinely monitor content of the following pollutants in air: sulphur dioxide (SO2), nitrogen dioxide (NO2), carbon monoxide (CO), hydrogen sulphide (H2S). Samples are taken discretely four times per day at 1, 7, 13, and 19 of local time, so that a daily average concentration can be determined. Aromatic hydrocarbons content in air including benzene (C6H6), xylene (C8H10), toluene (C7H8) is determined every 10 days. Methylmercaptan content (CH4S) is additionally

Fixed Environmental Monitoring Station



monitored in Beryozovka village. Gidromet test laboratory is contracted to provide air quality monitoring. Monthly air quality test reports are published in the local mass media and sent to the villages where they are displayed on notice boards;

- If village residents call to report gas odour, an unscheduled air sampling can be carried out at any time of the day or night as the sampling specialists are village residents.
- Two mobile environmental monitoring stations

(MEMS) are also available to quickly mobilise for air quality monitoring in villages in the event of receiving gas odour reports. In addition, the MEMS ensures under-flare monitoring of air quality during flaring and well acidizing with account of wind direction near the surrounding villages.

Owing to this extensive monitoring system, KPO has up-to-date information available to guarantee early detection and prompt response to any potential pollutant exceeding the relevant allowable limits. In 2010, the MPC for any monitored parameters was not exceeded in the air of villages adjacent to the field and at the SPZ boundary. Finally, KPO is working in close cooperation with the Ministry of Environment in order to comply with the recent requirement to grant online access to the competent authorities to monitoring data.

The compliance of air quality in the village of Berezovka with the parameters set by the legislation was acknowledged by the Astana Economic Court, ruling in June 2010 on the civil case brought against the Government of the Republic of Kazakhstan. The case concerns the determination of the boundaries of the Sanitary Protection Zone around the Karachaganak Field and the right of the residents of the Berezovka village to be resettled.

Having reviewed the air quality of the village, the Court ruled that there is no ground for the resettlement of the village, except for those few who live within the boundaries of the 5 kilometres SPZ. Thus, the Court defined the duty for the local executive bodies to relocate the real properties identified to lie within the boundaries of the 5 kilometres SPZ.

In order to address the concerns raised by the case, a governmental Working Group was set up, led by the Ministry of Environment. Among the actions taken, the Working Group requested KPO to further enhance its monitoring network with the installation of two Environmental Monitoring Stations close to the said village. KPO has agreed to the request and has begun implementation.

Also, KPO has agreed with the Environmental Authorities to conduct a further three year study on the environmental conditions of the said village. KPO has been conducting similar analysis on the vegetation, soil, surface water and livestock of the surrounding communities, including Berezovka, for the last three years, upon the initiative of the Village Councils. The results of this study, conducted by a state licensed research institute, indicate that the conditions of the villages around the Field are not different from the ones registered in the test villages selected at a distance from the KPO operations.

Community Preparedness

KPO continues to actively engage with the communities and the authorities in order to ensure coordination and effective response in the event of an emergency situation. Unique Communication and Public Information systems have been installed in 11 Villages where more than 6 000 residents live. The systems control is maintained 24 hours a day by KPO. Moreover, to ensure all emergency response systems remain effective, regular exercises are held in each of the villages according to the set notification and evacuation plans.

Once a year, a joint emergency exercise involving officials and communities from the villages surrounding the Karachaganak field is held. In 2010, upon a recommendation of the local authorities the joint large scale exercise was conducted in the Zharsuat Village located in proximity to the field. The exercise involved the Akims of the villages, Zharsuat village community, representatives of the Burlin District and the West Kazakhstan Oblast Emergency Situations Departments and the representatives of the Russian Federation

> Renovated primary school in Karachaganak Village

ES authorities (Orenburg City). For this type of exercise KPO Emergency Communication Centre receives a simulated environmental incident, which activates numerous emergency and environment response personnel to investigate and mitigate the emergency. The village alarm system is activated, the village Akim is contacted, and procedures are implemented instructing residents to take appropriate actions. KPO response teams directly participated in the exercise and provided all necessary assistance to local authority emergency management teams until the drill was declared over. Representatives of the District and Oblast authorities evaluated the exercise and its overall success very positively.

Strong emphasis is given throughout the year to develop and enhance awareness and capability of the village authorities and communities in emergency response. Training sessions and meetings are regularly held with the villages around the Karachaganak field and along the export pipelines (approximately 1,800 residents of 45 villages along the pipeline route).

Cooperation with the local Emergency Situations Departments is well established and, in 2010, KPO was also involved in developing Evacuation Plans for the interested communities.

KPO will continue this effort to ensure that villages are protected to the fullest and continues to upgrade environmental monitoring, communication and village alarm systems to incorporate the latest technology and meet the highest standards.

SUPPORTING DEVELOPMENT

Improving livelihoods is a key aspiration for the communities around Karachaganak, and KPO strives to be supportive of these aims, complementing the efforts made by the local authorities.

Village Council projects

In the framework of the Village Council, projects are proposed by the communities and implemented by KPO with the aim to improve the basic social infrastructure of the villages and their social life.



Meeting of the Village Councils' representatives with KPO senior management

KPO then evaluates the proposals received in terms of alignment with community needs, overall priority, technical feasibility and budget associated, and a set of Village Council Projects is agreed and realized in the eight villages surrounding the field. Over the years, a balance of involvement is maintained across the different villages.

Also, every year KPO provides funds for children from the villages to go to summer camps and for pensioners and teachers to go to health resorts. Importance is also given to the social and cultural life of residents and initiatives aimed at improving it.



Community Development Projects

Community development activities are conducted to fulfil KPO's social responsibilities with respect to neighbouring communities and to contribute to their long term development. In 2010, KPO continued to support the Mobile School of Arts project. The aim of the project was to provide access to vocational training and aesthetic education for school age children in village communities around the Karachaganak field and the town of Aksai. A pool of teachers held regular classes in the schools in the afternoons.

2010 Village Council Projects

Beneficiaries	Projects	Cost in thousand USD
All villages	Summer spa health treatment for 180 elderly people and teachers	83,500
	Summer camps for 140 children	35,100
	Refurbishment of Berezovka Clinic	27,300
Berezovka	Purchase of musical equipment for the House of Culture	800
Uspenovsky rural district includes Uspenovka, its satellite Karakemir and Zhanatalap	Engineering/design of the technical water system upgrade	48,700
	Provision of spare parts for installation of the water pumps for the village technical water pump station	1,600
Zharsuatsky rural district includes Zharsuat. Dimitrovo	Fencing of the WW2 memorial, House of Culture and school in Zharsuat	54,000
and Karachaganak	Renovation of Karachaganak Village School	135,300
6 rural schools (Berezovka, Uspenovka, Zhanatalap, Priuralnoye, Kzyl-Tal and the Burlin Boarding- School)	Donation of buses during an official ceremony on the Knowledge Day	143,700

Total 530,000



Medical equipment donated to Burlinsky District Hospital

Besides, two new projects were launched in 2010.

The English Language Project was launched for the school year 2010-2011 aiming at providing extracurricular training on the English Language for the local schoolchildren of Aksai and the four rural districts of Burlinski Districts located in close proximity to the Field (about 250 students involved). The final objective is to enhance the skills in English language as a tool for further education and better employment.

The pilot Community Scholarship Project was launched in cooperation with the District Education Department to enhance the availability of professionals in the rural districts. Children from the villages are funded to have specific education under the commitment for them to come back to their rural district and serve for a certain number of years. KPO would like to grant approximately



15 scholarships a year. In 2010, four students have been enrolled for the pilot phase.

A new strategic programme was also developed in cooperation with a leading international agency. The programme was aimed at supporting growth in the rural districts around the Karachaganak Field. Talks are underway with the Republic and the Partners in the Karachaganak Venture in order to finalise the programme and decide on its launch.

KPO expenditure in 2010 towards the communities, including the Village Council Projects and the Community Development Projects, totalled USD 657,507.

Sponsorship programme

A dedicated fund administered by an internal committee in accordance with the KPO Sponsorship and Donation Policy enables KPO to support vulnerable groups and public associations active in the fields of community health and safety, education, arts and culture, and sports. A part from evaluating proposals for funding coming from the organizations, KPO also actively engages with them to stimulate initiatives responding at identified challenges in society.

Children from Mobile School of Arts 'Levsha' received diplomas of the Environmental Drawing Contest held in Astana



Handing over keys of new buses purchased by KPO for rural schools

Through this programme, 38 different projects were supported in 2010 for a total of about USD 431,208.

One of the main targets for KPO corporate contribution in 2010 was the Burlinskyi District Association of the Disabled People, which arranges for the sanatorium treatment of elderly people, summer rest for disabled children, the holding of sports and cultural events and the provision of medicine for the disabled. In the framework of the Association's performance, which has 550 members, the specially-designed Committee for the Distribution of Charity Funds regularly reviews incoming requests received from disabled people facing hardship and provides needed assistance.

Two buses were donated to two schools in rural districts (Chapaevo village boarding school in Akzhaik rural district and Prirechnoe village school in Terektinskyi rural district) in order to facilitate the right to education and allow students to participate in cultural, educational and sports events in other towns and villages.

In the healthcare area, KPO rendered a considerable amount of support to Burlinskyi District Hospital in acquiring medical equipment, namely electro coagulator, electrocardiograph, bedside monitor, and other. In the sphere of youth development, KPO offered support to the "Digital wind" computer contest arranged by the West Kazakhstan Technical Engineering University and The II Youth Economical Forum organized by the Centre of the Youth Initiative. Also, the Youth Guidance Project obtained funding from KPO, supporting difficult youngsters and those released from jail.

In 2010, KPO donated USD 50,000 to the Kazakhstan Red Crescent Society to support the emergency efforts required to respond to the severe consequences of the floods that hit the Almaty region in March 2010. A total of about 1,500 residential houses were reported to be flooded, part of them completely destroyed, with around 10,000 people temporarily resettled to safe locations.

2010 Sponsorship and Donations Programme



Data Table and GRI Indicators

In order to ensure the relevance of the data provided in this performance table, and to conform to international best practice, we have used indicators from the Global Reporting Initiative indicator set. The comprehensive Standard Disclosure table is available at www.kpo.kz. Air emissions data have been derived using the internationally recognized American Petroleum Institute's (API) methodology. For context explanation of the numbers below, please refer to relevant chapters.

ENVIRONMENTAL DATA

GRI indicator	Energy use					
addressed	Direct energy consumption by primary	Gas 2010	Electricity 2010	2010 Total ¹	2009 Total	2008 Total
EN 3	energy source (Megawatt hours)	475 150	8 211	483 361	518 159	466 338

Water use

	Water supply sources							
EN 8	m3	Kigach water intake (Atyrau)	Konchubai Gully water intake	Serebryakovsky water intake (Bolshoi Chagan)	Zharsuat intake	2010 Total	2009 Total	2008 Total
	Total water use by source	2 815	351 374	1 944	182 988	539 121	527 076	584 575
	Technical water	2 815	351 374			354 189	334 317	404 356
	Potable water			1 944	182 988	184 932	192 759	180 219
)10	2009		2008		
EN 10	Volume of potable water	m3	%	m3	%	m3	2000	%
	Tecycleu	40 093	22%	42 762	22%	44 460		25%
EN 21	Total water discharged:	Destination	Treated wastewater to field holding ponds	Treated wastewater to Atyrau holding ponds	Storm run-off to adjacent steppe	2010 Total 2009 Tota		2008 Total
	By destination	Thousand m ³	129.745	0.902	5.780	136.4265	139.27	139.27

Emissions to air

Emissions to air (tonnes)	Flaring	Fuel use	Other	2010 Total	2009 Total	2008 Total	2010 normalised rate ²	2009 normalised rate	2008 normalised rate
Carbon dioxide	82 475	1 299 970	5 772	1 388 217	1 444 686	1 439 908	10 388	10 359	10 557
Carbon monoxide	140	1 290	0	1 430	1 754	1 670	11	13	12
Nitrogen oxides	56	2 940	0	2 996	3 421	3 439	22	25	25
Sulphur dioxide	985	62	0	1 047	2 482	3 843	8	18	28
Methane	268	338	26 699	27 305	28 483	27 730	204	204	203
Volatile organic compounds	83	251	0	334	656	219	2.5	5	2
Total greenhouse gases (tonnes of carbon dioxide equivalent) ³	88 096	1 307 071	566 448	1 961 614	2 042 837	2 022 236	14 679	14 649	14 826

Waste

EN 16 EN 20

EN 22

Type (tonnes)	Disposal method			Generated in 2010	Generated in 2009	Generated in 2008	
	Recycled	Landfill	Third party contractor	Stored on site			
Solid		5 076	912	13 788	19 777	38 919	24 627
Liquid (not including wastewater)	20667		584	11 569	32820	30 351	38 523
Total	20667	5 076	1 497	25 356	52597	69 270	63 150



WORKFORCE DATA

		2010	2009	2008
LA 1, EC 7	Total number of employees Of which Kazakhstani nationals Percentage of total workforce nationalised Percentage of managerial positions nationalised Gender split in workforce (men/women)	4 142 3 706 91% 62% 2994/1148	4 375 3 755 87% 49% 3186/1189	4 378 3 571 87% 44% 3224/1154
LA4	Percentage of workforce covered by collective bargaining agreements	100%	100%	100%
LA 10	Average hours of training per year per employee ⁴ Average training expenditure per year per employee (US\$) ⁴	63.3 4 226	67.2 5 569	103 4 500

SAFETY DATA

		2010	2009	2008
	Lost time injury frequency per million hours worked (LTIF)	0.18	0.13	0.11
LA 7	Total recordable case frequency per million hours worked (TRCF)	0.38	0.65	0.4
	Total fatalities	0	1	0

SOCIO-ECONOMIC DATA

EC 6	Local Content (before 2010) ⁵	2010	2009	2008
	Value of orders for goods and services placed with Kazakhstani firms (USD million)	-	683	537
	As a percentage of total purchases	-	49%	57%
	Local Content (from 2010)⁵			
	Value of Kazakh content for goods, services and works as paid during the year (US\$ million)	86	-	-
	As a percentage of total paid invoices	17%	-	-
		1		
	Social infrastructure investment/Uralsk (USD million)	33.2	11.45	8.35
	Social infrastructure investment/Aksai (USD million)	10	-	10
	Community projects (USD million)	0.6	0.42	0.6
	Philantropy (USD million)	0.4	0.37	1.3

Note:

- ¹ Methodology for energy consumption was refined in 2010. Data on 2009 and 2008 are shown as recalculated with the new methodology.
- 2 Tonnes per million barrels of oil equivalent
- ³ GHG calculation was made based on Parent Companies' methodology.
- ⁴ Average hours and average training expenditures are calculated based on number of KPO national employees (excluding personnel (drivers) contracted by Career agency) as of December 31, 2010. Data from 2008 did not include non direct employees.
- ⁵ The method of calculation of Local Content has changed in 2010 in accordance with changes in the RoK law as approved by the RoK Government. Since 2010 Local Content percentage is therefore calculated according to the new methodology, i.e. actual expended contracts figures are taken as the basic data for calculation. Previous years calculation was based on awarded contracts values and percentages. This makes impossible to compare 2010 absolute values and calculated percentages against the published values in the previous years.

Verification statement



• Review of the KPO Sustainability Report 2010 against the criteria of the GRI Application level requirements.

Site visits

- Visiting the Karachaganak field, selected KPO operational entities at the Karachaganak Field and the KPO main office (the Main Office) in Aksai, Kazakhstan.
- Interviewing personnel responsible for internal sustainability reporting and data collection at the sites we visited and at the Main Office to obtain an understanding of KPOs internal sustainability reporting guidelines and how they are applied.

Assessment of the key figures

• Performing tests on a sample basis of evidence supporting data in the Data Table in this Karachaganak Sustainability Report 2010 concerning completeness, accuracy, adequacy and consistency of such data.

Review of the documentation and analysis of relevant policies and basic principles

• Reviewing the relevant documentation on a sample basis, including KPO sustainability policies, management and reporting structures and documentation.

Assessment of the processes and data consolidation

- Reviewing the appropriateness of the management and reporting processes for sustainability reporting; and
- At the Main Office level assessing the consolidation process of data from the Data Table of Karachaganak Sustainability Report 2010.

Review of the KPO sustainability report

• Review of the Karachaganak Sustainability Report 2010 against the criteria of the GRI G3 Application level requirements.

Conclusions

Based on our work described in this report and on our assessment of the Criteria:

- Nothing has come to our attention that causes us to believe that the performance indicators and data mentioned in the subject matter and disclosed in the Karachaganak Sustainability Report 2010 (the Data Table) are not fairly stated in all material respects in accordance with:
 - KPO's defined procedures and internal sustainability reporting guidelines, by which the Sustainability Related Information is gathered, processed and aggregated internally by KPO; and
 - The 'Sustainability Reporting Guidelines G3' published on October 2006 by the Global Reporting Initiative (GRI).
- Nothing has come to our attention that causes us to believe that the Karachaganak Sustainability Report 2010 does not meet the requirements of the GRI G3 Application Level of "C+".

Pricendatahoureloopers LLP

Almaty, Kazakhstan March 4, 2011

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Glossary

Terms/Abbreviations	Definitions		
Akim	Head of administrative region (can be at the village, town or region level)		
FPSA	Final Production Sharing Agreement		
КРО	Karachaganak Petroleum Operating B.V.		
Partners in the venture or parent companies	Refers to BG, Eni, Lukoil and Chevron		
WKO	West Kazakhstan Oblast		
bcm	Billion cubic metres		
Brundtland Commission	World Commission on Environment and Development		
CAO	Compliance Advisor Ombudsman		
CIS	Commonwealth of Independent States		
CLO	Community Liaison Officer		
CMS	Competency Management System		
CO2e	Carbon dioxide equivalent		
CPC	Caspian Pipeline Consortium		
DLN	Dry low NOX fuel		
EIA	Environmental Impact Assessment		
EMS	Environment Management System		
EOPS	Early Oil Production Satellite		
ERM	Environmental Resources Management company		
FIC	Foreign Investors' Council		
GDP	Gross Domestic Product		
GHG	Greenhouse Gas		
GRI	Global Reporting Initiative		
H2S	Hydrogen Sulphide		
HRA	Health Risk Assessment		
HSE	Health, Safety and Environment		
IFC	International Financial Corporation		
IOSH	Institute of Occupational Safety and Health		
ISO 14001	ISO 14001 is an internationally accepted standard that sets out requirements for putting in place an effective Environmental Management System (EMS)		

IUCN	International Union for Conservation of Nature
JOC	Joint Operating Committee
KATS	Karachaganak-Atyrau Transmission System
KOGCF	Karachaganak Oil and Gas Condensate Field
KOGOA	Kazakhstan Oil & Gas Operators Association
КРС	Karachaganak Processing Complex
KPI	Key Performance Indicator
kt	Kiloton
LMP	Liquid Mud Plant
LTI	Lost Time Incident
LTIF	Lost Time Injury Frequency
LTP	Liquid Treatment Plant
Mboe	Millions of barrels of oil equivalent
MPC	Maximum permissible concentrations
Mscm	Million Standard Cubic Metres
NGO	Non-governmental organisation
NO2	Nitrogen dioxide
NOX	No nitric oxides
OGP	Oil and gas producers
OHSAS 18001	OHSAS 18001 is the internationally recognised assessment specification for occupational health and safety management systems.
OPITO	Offshore Petroleum Industry Training Organization
RKI	Rotary Kiln Incinerator
RoK	Republic of Kazakhstan
SO2	Sulphur dioxide
SPZ	Sanitary Protection Zone
STEP	Safety Training and Enhancement Programme
тсс	Thermo-Mechanical Cuttings Cleaning facility
tcf	Trillion cubic feet
TRIF	Total Recordable Injury Frequency
USD	United States Dollars

FEEDBACK

Tell us what you think of this Report or if you want to know more. Your views will help us shape the 2011 edition.

KPO Sustainability

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