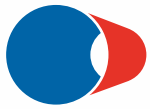


Panorama CPC



CJSC Caspian
Pipeline
Consortium-R



JSC Caspian
Pipeline
Consortium-K

Caspian Pipeline Consortium Corporate Edition

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In Focus:
***Business and
the community***
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Nikolay Brunich:

"Our main goal is to keep the pace up!"

DEAR COLLEAGUES, FRIENDS, WE ARE ENTERING THE SECOND HALF OF 2015. OVER THE FIRST SIX MONTHS OF THIS YEAR THE CONSORTIUM CONTINUED TO DEVELOP DYNAMICALLY, PERFECTING ITS ORGANIZATIONAL STRUCTURE AND PREPARING TO LAUNCH NEW FACILITIES.

The Tengiz-Novorossiysk pipeline has been and remains a very important oil transportation route. It is now working at 92% capacity – a very good figure indeed for the pipeline industry worldwide.

The pipeline's throughput capacity is scheduled to increase in July, and then again towards the end of the year. Eleven facilities will be put into operation in the middle of the year, including new pump stations, rotational camps, roads, substations, etc. By the end of the year, plans call for adding new capacity at the Marine Terminal's Tank Farm and new stations both in Russia and Kazakhstan. These developments will allow us to increase the pipeline's throughput capacity by 8 mln t to bring it up to 52 MTA.

In 2015, CPC is expected to deliver around 45-46 mln t of oil to the Novorossiysk Marine Terminal, exceeding the annual target of 43 mln t, which has become possible thanks to the dynamic development of the project. The increase in oil transportation volumes will favorably affect the Consortium financials and, consequently, will help increase the funding of both operational expenses and the Expansion Project.



It is important to note that Consortium will not only refrain from borrowing more funds for the Expansion Project, but has, even

volumes with the launch of new facilities, the latter figure will likely be increased by another \$300-400 mln. We expect that at such a

The Consortium's achievements received positive appraisals from CPC shareholders at the AGMs of CPC-R and CPC-K held in Italy on May 26-28, 2015

when construction is not yet completed, already begun repaying debts to its shareholders. A first payment of \$600 mln was made in April 2015. Another payment of \$450 mln is scheduled for December 2015. Given the opportunity for increasing oil transportation

rate, CPC will fully repay its debts by 2020 and then proceed with paying dividends to shareholders.

Also impressive are the team's achievements in the field of labor health and safety. The landmark of 10 mln man-hours without work »

time loss incidents was achieved by early May.

As an international consortium, CPC implements the very best world practices in the fields of labor health and safety, industrial safety and environmental protection. It also follows completely the requirements established under the appropriate laws of the Russian Federation. Since 2011, CPC has been implementing a safe work performance program. Specially trained field supervisors are present at each facility to ensure that the safe performance of work has become the conscious choice of each and every employee.

The implementation of a safe driving program reduced traffic accident rates to 0.31 per 1 mln km, with the project's overall mileage now exceeding 82 mln km. Within the framework of the program of surveillance over hazardous work and labor conditions, which has been implemented at the construction facilities since 2013, effective communication has been established between construction workers and management at all levels. Everyone can report any problems to management. Furthermore, every worker employed



Work meeting at PS "Atyrau"

at CPC construction sites possesses knowledge and experience in workplace hazard assessment and proper planning of work with regard to potential risks.

Adequate labor environment and living conditions are provided to all workers employed at CPC construction sites. Employees are encouraged by bonuses to take measures to create safe labor conditions within the framework of ad hoc programs developed and successfully implemented by the Consortium. Over 3,000 employ-

ees received safety awards over 2011-2015.

The Consortium's achievements received positive appraisals from CPC shareholders at the AGMs of CPC-R and CPC-K held in Italy on May 26-28, 2015. I would like to say many thanks to our closely-knit international team! I'm certain that we will not rest on what we have already achieved, and will proceed to new challenges. ■

*by Nikolay Brunich,
CPC General Director*

Marine Terminal shore facilities



A mutually beneficial partnership

ON JUNE 18, CPC-R AND SBERBANK OF RUSSIA SIGNED A COOPERATION AGREEMENT.

The agreement was signed at the St. Petersburg International Economic Forum by CPC General Director Nikolay Brunich and Sberbank President and Management Committee Chairman German Gref.

The agreement envisions strategic partnership between CPC and

Sberbank, specifically in cash management services and a payroll card program for the Consortium and its employees.

CPC chose Sberbank as its strategic banking partner for its high reputation and reliability confirmed by international ratings,

and for its strong network of divisions ensuring provision of services to CPC-R in all regions of its operation in Russia. ■



The document was signed by CPC General Director Nikolay Brunich and Krasnodar Krai Territorial Administration interim head Veniamin Kondratyev in Krasnodar on June 16. It provides for the Consortium to allocate an additional 145 mln rub to be invested in social projects implemented within the territory as part of the CPC Expansion Project.

Noting CPC-R's material contribution in the development of the Krasnodar Krai infrastructure, Veniamin Kondratyev recalled the recent reopening of the Kuban Stadium in the Krymsk District, which was refurbished with funds

Socially responsible

CPC-R SIGNED MODIFICATION AGREEMENTS ON COOPERATION WITH THE KRASNODAR AND STAVROPOL KRAI TERRITORIAL ADMINISTRATIONS.

provided by the Consortium. Kondratyev stressed that it was a good example of cooperation between government and business for the benefit of the people.

– Despite the crisis and difficulties being experienced by our economy, CPC has invariably been a reliable partner and always fulfilled its obligations, – he remarked.

In his reply, Nikolay Brunich promised that cooperation between CPC and the Krasnodar Krai would continue and announced the Consortium's intention to invest an additional 145 mln rub in social projects in Novorossiysk.

A modification agreement on cooperation in social projects implemented as part of the CPC

Expansion Project was signed by CPC General Director Nikolay Brunich and Stavropol Krai Governor Vladimir Vladimirov in Stavropol on June 25.

Under the document, the Consortium undertakes to allocate an additional 145 mln rub for the needs of the territory in 2015, distinct from its regular annual charity contribution of 42 mln rub.

Nikolay Brunich noted that PS-4 will be put into operation in the Stavropol Krai this year, to be followed by PS-5 next year. Personnel for the new pump stations will be hired locally.

Vladimir Vladimirov noted the high level of cooperation with the Consortium. From 1998-2014, CPC allocated over 400 mln rub for the Krai's social needs. ■

Under the clear sky of Kuban

IN APRIL, REPRESENTATIVES OF THE CONSORTIUM'S SHAREHOLDER COMPANIES PAID A VISIT TO PS-7, NEAR STAROMYSHASTOVSKAYA VILLAGE, AND OPENED A NEW KINDERGARTEN THERE, AS PART OF THE CPC BOARD OF DIRECTORS EVENT PROGRAM.

WORKING HOME

"CPC Panorama" has visited PS-7 several times while it was still under construction. And there were often problems with the weather – either fog, low cloud cover, or heavy rain. But the skies did their best for the shareholders' visit – the curves of the silvery tubes shone in the spring sunlight, the towers of the lightning protection systems rose up into the clear skies, the blue-and-white buildings looked good, and the lines of cable racks brought the whole picture together.

– It is a very attractive facility, – Mikhail Barkov, Vice-President of Transneft told "CPC Panorama". – What we have here is a world-class technical performance, industrial design and precision. The only thing lacking, perhaps, so far is some greenery. I saw the Consortium's PS "Astrakhanskaya", and liked it a lot in that respect. But nature in the Kuban is so generous that I have no doubt that things will be the same here very soon. It will make the station genuinely inviting – and not just technologically advanced. That's a very important factor, since a PS is a true working home for its employees.

Indeed, PS-7 doesn't seem like a station at all, but a real display of advanced modern technological ideas and achievements. There are nine frame modular buildings, over 220 km of power and control cables, almost 3,700 items of mechanical, technological and power equipment, as well as CMD&A equipment.

The oil in the pipeline is transported by four main line pumps at a maximum rate of 12,000 m³ per hour when using the "three operating – one on stand-by" pattern. They

are set into motion by asynchronous 8 300 kW motors. The units feature all the additional system elements – lubrication, cooling, and retaining motor enclosure ventilation system.



The CPC delegation was met with Kuban hospitality. In photo – Andrew McGrahan and Dennis Fahy



CPC Deputy General Directors Leonid Bokhanovskiy and William Simpson, Vice-President of Transneft Mikhail Barkov and First Deputy Head of the Dinskoy district Sergey Samoylukov opened the kindergarten



CPC shareholders at PS-7

SUSTAINABLE AND EFFICIENT

The high-tech automated fire-fighting system deserves special mention. According to the project, the powerful water and foam fire extinguishing systems can efficiently eliminate any potential fire threat of any complexity, as was successfully demonstrated in the course of recent extensive trials.

Having a pipeline surge relief system at the PS provides a high level of industrial safety. It secures the line pipe against hydroshock; and also secures the equipment of PS-7 and PS "Kropotkinskaya" that is situated up the oil stream.

For environmental protection there are proper high-efficiency disposal facilities at the station. They guarantee full-scale treatment of all industrial effluents and utility fluids.

The shareholders witnessed the work of a PS operator's base that conducts equipment condition control and monitoring for PS-7. The control panel is in run by the best Consortium specialists. Reliable automation systems help them strictly follow all operating procedures.

- I was really pleased with the visit to the station. The facility is properly executed at a high technological level. I was also impressed with the serious training level of Operations representatives: we got comprehensive answers to all our many ques-

do these challenges mean when compared to the pressures of raising children and turning them into true citizens! We wish your region development and prosperity, and, as a socially-oriented company, CPC will be happy to assist you in your

The Caspian Pipeline Consortium and the Krasnodar Krai have long been connected by partnership relations, fulfilled in many specific social projects

tions, – Andrew McGrahan, Chairman of CPC-R Board of Directors and President of Chevron Neftegaz Inc., summed up the results of the visit.

COOPERATION BENEFITS

Not only production facilities but also a number of public amenities are being built as part of the CPC Expansion Project. Right after their visit to PS-7, the shareholders went to Staromyshastovskaya village to take part in the opening ceremony of a new kindergarten that was fully built on the charity donations of the international Consortium.

– CPC builds many facilities, and a kindergarten is just as important to us as the pipeline, stations, or tank farms. It was a challenge to build it on such a tight schedule. But what

efforts, – said William Simpson, CPC Deputy General Director for Projects and Engineering.

The Staromyshastovskaya kindergarten is the third such facility built in the Krasnodar Krai with the support of the Company under the pipeline Expansion Project. In the Kuban alone, CPC-R has invested almost 1 bln roubles into the community sphere during the period of 1998-2015.

– The Caspian Pipeline Consortium and the Krasnodar Krai have long been connected by partnership relations, fulfilled in many specific social projects, – noted CPC Deputy General Director Leonid Bokhanovskiy, confirming that such fruitful cooperation will be continued. ■

by Pavel Kretov

With the participation of trustees

IN APRIL 2015 CJSC CPC-R AND THE GUBKIN RUSSIAN STATE UNIVERSITY OF OIL AND GAS CONCLUDED A COOPERATION AGREEMENT.



This document offers exciting possibilities for cooperation in various fields – from shared drafting of scientific publications to upgrading the professional skills of CPC-R specialists, as well as hosting student training and pre-graduation internships at the Consortium facilities.

The agreement was signed by Consortium General Director Nikolay Brunich and State University Rector Viktor Martynov at the meeting of the new

The University Board of Trustees was set up in March 1992, the first of its kind among Russian universities. At the time nobody had any idea how significant the role of this body would be.

– During the 1990s, at the time when the state economy was crumbling and there was lack of funding, the Board of Trustees backed the University and helped it get through many difficulties, – the Rector said while expressing his deepest gratitude to Valery

Nikolay Brunich and Viktor Martynov

Russian oil workers. Not only do they provide financial support, but also determine the University's development structure and form the focus areas of its education and academic work. Following the decisions of the Board of Trustees helps the University to accurately meet the demands of manufacturing companies in the field of skilled workforce training.

Clearly, the strategy pays off. The performance of the Gubkin Russian State University of Oil and Gas has been recognised with various prestigious honors and awards. It is the leading University for oil and gas industry education and a primary educational facility in geology, mining, petroleum engineering and geodesy. It has the status of a National Research University and a fundamental CIS institution for staff training in the oil and gas industry.

According to national ratings, it comes in the top-20 of the

The performance of the Gubkin Russian State University of Oil and Gas has been recognised with various prestigious honors and awards. It holds the status of a National Research University and a fundamental CIS institution for staff training in the oil and gas industry

University Board of Trustees chaired by Viktor Zubkov, the special representative of the President of the Russian Federation for Gas Exporting Countries Forum communications, and Chairman of JSC "Gazprom" Board of Directors.

Grayfer, Chairman of JSC "LU-KOIL" and JSC "RITEK" Board of Directors, who was Viktor Zubkov's predecessor as the Board of Trustees Chairman.

The trustees are fully committed to the life of the alma mater of

leading educational institutions of Russia.

Both in the global markets and in the Russian oil and gas sector we

cation and Science of the Russian Federation.

Following the decisions of the Board of Trustees helps the University to accurately meet the demands of manufacturing companies in the field of skilled workforce training

The University has first-class scientific equipment, and even its own supercomputer. The scientists of the Gubkin University are involved in conducting a large body of research in building up the resource base, ecology, industrial safety, energy efficiency, etc. The University has successfully functioning

see nothing but fierce competition.

In this context the high workforce capacity of Russian companies and the presence of top-ranking specialists can easily come to be the critical factor to tip the balance, – Viktor Zubkov noted.

– The opinion used to be that Master's programmes were primarily designed for young scientists who chose their academic path for themselves. That is no longer true – the vast majority of the Master's programme graduates become structural designers, process engineers, specialists in complex technological processes, – Alexander Klimov, Deputy Minister of Education and Science of the Russian Federation, said at the Board meeting. ■

by Pavel Kretov



The Rector of the Gubkin State University reporting on the accomplishments of the institution

departments, which are unique in Russia – including those of upstream chemistry, chemical utilization of natural gas, oil and gas logistics, and petroleum trading.

Taking the reins of the Board of Trustees, Viktor Zubkov expressed his gratitude for the confidence vested in him and promised to keep up the effective work for the benefit of the University to make it advance towards new frontiers.

– It is true that the 1990s and the 2000s were hard years, but are things really that much easier now?

The University intends to move ahead by developing practice-oriented academic programs. Other ways to meet this challenge include using unique training facilities that simulate a field production control centre, a virtual oil-processing plant and pipeline system, and an off-shore drilling platform control stand.

The system of dual training and basic departments is to be developed. There is a plan to significantly expand the practice-oriented Master's programme. These initiatives receive broad support from the Ministry of Edu-



Viktor Zubkov takes the reins at the Gubkin State University Board of Trustees



Mellyat Karabalin: "Businessmen have a duty to support vulnerable parts of the population"

– Mr. Karabalin, could you tell us about CPC-K's social activities in the pipeline areas.

– The Consortium has implemented comprehensive community programs from the very start, including support for the most vulnerable parts of the population – the elderly, orphans and the disabled – and sponsored public education and health care and funded infrastructure development in the villages and cities along the pipeline's route.

Programs such as the Consortium's traditional "CPC for Veterans and Invalids" and "New Year's Day and Christmas Holidays with CPC" have been warmly received. These events are targeted at residents of orphanages and old people's homes.

CPC-K sponsorship programs are of real help for those in need and bring about tangible improvements in people's quality of life. Investing in community projects we always seek to maximise the number of people they can benefit. For example, building an annex to a health center will allow

On the principle of fairness

CPC-K HAS WON A GOOD NAME IN KAZAKHSTAN FOR ITS MAJOR CONTRIBUTIONS IN SOCIAL DEVELOPMENT IN THE REGIONS IN WHICH IT IS PRESENT. IN AN INTERVIEW WITH "CPC PANORAMA", DEPUTY GENERAL DIRECTOR FOR KAZAKHSTAN GOVERNMENT RELATIONS MELLYAT KARABALIN STRESSED THAT THE CONSORTIUM'S GOOD REPUTATION IS THE RESULT OF EFFORTS BY THE TEAM OVER MANY YEARS.

for more people to be treated, while a new kindergarten will help resolve problems caused by the shortage of pre-school facilities.

Sticking to the principle of fairness, CPC-K allocates equal resources to social programs in the regions through which the pipeline runs – 25 mln KZT per region per year. This sponsorship and charity system was introduced by my predecessor, K.R. Zhumin, and we currently use the following allocation system: 30% – for

needs of their people, local administrations prepare proposals for the Consortium's sponsorship and assistance. The CPC-K Department for Government Relations reviews these proposals and makes decisions to allocate funds for certain projects accordingly.

After CPC-K has allocated the funds, it is up to the local authorities to hold tenders to select the relevant contractors, monitor the quality of their work and services, and sign work completion and acceptance statements.

Investing in community projects we always seek to maximise the number of people they can benefit

villages; 30% – for educational institutions; 30% – for health care facilities; and 10% – for vulnerable parts of the population.

CPC-K charity events usually stimulate broad and positive responses in society, and are covered by the media, including local television channels broadcasting in Russian and Kazakh.

– How do you build relations with the local authorities?

– Cooperation agreements are in place between CPC-K and the relevant regional authorities. Since they are better informed about the

– Could you name the most important social projects funded by the Consortium in recent years? What projects are currently being implemented?

– CPC-K began to implement its largest social projects after the commencement of the Expansion Project. A list of facilities needing refurbishment was detailed in the cooperation agreement signed between CPC-K and the Atyrau regional administration on June 15, 2011. From 2011-2014, CPC-K funded the refurbishment of nine secondary schools in the city of Atyrau and the Atyrau region and the construction of a new second-

ary school for 120 students in the village of Aktogai in the Makhambet district. Kindergarten construction is currently under way in the Zhylyoi and Isatay districts and in the city of Atyrau. Refurbishment of the regional maternity hospital is nearing completion.

– The Kazakh people fought at the fronts of the Great Patriotic War. How has CPC-K honored the veterans on the 70th anniversary of the Great Victory?

– The Victory was achieved at the cost of many human lives and real hardship. We bow our heads

around the clock at the plants and factories evacuated to Kazakhstan making weapons and ammunition for the army. It is difficult to measure the contribution of any one individual, but all veterans deserve our acclaim and gratitude. We are glad that many of them are still active, and still promoting peace, friendship and harmony in society.

To celebrate the 70th anniversary of Victory Day, CPC-K, together with the Regional Department of Defense, organized a charity dinner for 54 veterans at which they were presented with food



Equipment for the regional children's hospital

Honoring veterans of the Great Patriotic War



to those who did not spare their lives fighting fascism. The names of thousands of our compatriots will be remembered in history. We are proud of the immortal feats of our heroes – Manshuk Mamedova, Bauyrzhan Momyshuly, Talgat Begeldinov, Aliya Moldagulova, and our countrymen Khiuaz Dospanova, Alexander Afanasyev and Musa Baimukhanov. We also cannot forget those who worked

gift baskets, watches with the CPC logo and commemorative tokens.

A Great Patriotic War Memory Alley with an Eternal Flame commemorating more than 4,000 people from the Zhylyoi district who died in the war and those few who were lucky to survive was created using CPC-K funds in the center of the district's city of Kulsary. At

the solemn opening ceremony, the Zhylyoi district administration head publicly thanked CPC for its present marking the 70th anniversary of the Great Victory. Other districts are also receiving help from the Consortium, and memorial facilities commemorating the Great Patriotic War are nearing completion there. ■

Interview by Ekaterina Suvorova

A Most Enjoyable Mission

IT IS ALWAYS A PLEASURE FOR THE CPC PRESS SERVICE TO VISIT COMMUNITY FACILITIES BUILT WITH FUNDS CONTRIBUTED BY THE CONSORTIUM. AFTER ALL, SO MANY WORDS OF THANKS ARE SPOKEN ABOUT OUR COMPANY!..

A HOME FOR PRE-SCHOOLERS

The unusual rainfall that hit Western Kazakhstan this May turned the construction site where the

tion contractor), gave us a guided tour of the facility. Now that the project is entering the interior finishing phase, he can already “picture” the final result – well-equipped playrooms, the gym, the

from construction materials to bed clothes, is purchased from Russia and Kazakhstan, meaning that we can be certain about the quality!” – Karshyga Dzhaumbayev assured us.



Karshyga Dzhaumbayev, Sagit Saparov, Bayerkhan Nurgaliyev and Erik Oralbekov (left to right) at a working meeting at the kindergarten's construction site

Continuing on the subject of quality, Director Sagit Saparov of PLC Rigma Consulting (Independent Technical Supervisor) said:

– Our representatives are permanently present at the site and I visit it daily. I must note, all work is performed in strict compliance with the design, and if there are any complaints they are promptly rectified.

In addition to technical supervision, there is also design supervision at the site. Everything that goes on at the construction site is monitored by CCTV. “Only the very best for the children,” – we heard this sentence many times, and not merely as a slogan, but as a real instruction.

The client and beneficial owner, the Atyrau City Department of Education, is very interested in the swiftest completion of construction.

CPC Expansion Project is sponsoring the construction of a kindergarten into a real swamp. However, such severe natural conditions didn't discourage the construction workers in the least and didn't disrupt their plans to complete construction of the 160-place kindergarten as soon as possible – it has long been looked forward to by the residents of Birlik, a new district of Atyrau. Currently Birlik has only one kindergarten which can accommodate only 40 children.

canteen... This is a “turn-key” project providing for the kindergarten to be delivered “ready-to-use,” i.e. equipped with furniture and furnished with equipment. Apart from the kindergarten building, plans call for the construction of eight sheltered playgrounds.

– We are expediting the project. 31 people are working here now and heavy construction equipment is in use.

Everything,

Karshyga Dzhaumbayev,
General Director of PLC Mu-
nai Avtomatika Servis LTD
(the general construc-

Erik Oralbekov from the Atyrau City Department of Education told “CPC Panorama”:

– We are currently short of over 10,000 pre-school places. We hope to overcome this deficit by 2020, but this will not be possible without sponsorship. Fortunately, there are socially responsible companies such as CPC-K, which have come to our help. Without doubt, the future kindergarten will make it among the city’s top ten. A team of professional teachers has already been formed and appropriate education programs prepared. In addition to the construction of new facilities, CPC is also refurbishing and providing equipment for existing municipal schools and kindergartens, which is also highly appreciated by the city.

Oralbekov expressed hope that CPC will continue its sponsorship for the city of Atyrau, adding that in recent years the city has achieved a great deal demograph-



Very soon these rooms will be filled with the sound of children’s voices

old 4-story building that dates back to the 1970s. All the rest has been newly built.

– In a couple of weeks everything will be ready, – Erniyaz Udreyev, general contractor’s representative and chief engineer of PLC

An important part of the project, also funded by CPC-K, is the oxygen supply outlet, which has been constructed next to the main building. After all, oxygen is vital for babies born underweight or with health issues.

Ulzhan Khasanova, chief physician at the Atyrau regional maternity hospital, can’t help showing her feelings. She had sought help over several years from the relevant administration agencies, trying to persuade them to allocate funds to refurbish the hospital, but in vain. And then the CPC-K sponsorship miraculously arrived.

– Your company has helped to solve some really major problems, – Ulzhan Khasanova said with emotion. – Our maternity hospital is classified as a Grade III medical institution, which means that in addition to conventional obstetrics, we provide treatment of preterm infants weighing from 500 grams. This is a major achievement. We deliver around 8,000 babies a year and provide in-patient medical treatment to 15,000 women.

We employ European-level specialists and now that we have this »

The project calls for the kindergarten to be delivered “turn-key,” fully furnished and equipped

ically. Compared to the situation five years ago, 2,000 more children are starting school every year!

FOR CHILDREN AND MOTHERS

Given Atyrau’s baby boom, CPC’s other major community project is particularly appropriate: refurbishment of the local maternity hospital to make it into a regional perinatal center. The project is funded by CPC-K as part of the framework of the Expansion Project. At the time of our visit, work was nearing completion. Only the masonry walls and floor slabs recall the

KazConstructionGroup, noted with confidence as he gave us a guided tour of the future perinatal center. We walked through the operating theaters, intensive care and therapy departments, and noticed that the supporting structures for equipment and medicinal gases had already been installed. Every patient will be provided with an individual life-support and monitoring system.

Interior design hasn’t been forgotten, either – the colors of the walls and ceilings are pleasing to the eye. Each floor features its own design, made in accordance with requests from the future center’s department heads.

modern and well-equipped perinatal center, we will be able to take care of our patients in excellent surroundings – and that definitely helps them. Many thanks to the Consortium! I want to wish CPC prosperity and to continue working for the good of society!

SCOPE OF SPONSORSHIP

We were lucky to see that day both the kindergarten and the perinatal center, both of which demonstrate CPC-K's approach to community projects. The main idea behind the Consortium's selection of charity projects is achieving the maximum possible improvement in the community's quality of life. The implementation of the Expansion Project has led to a considerable increase in the Consortium's investment in social infrastructure within the areas of its business. Bayerkhan Nurgaliyev, Expansion Project Group member in charge

Development Program for the city of Atyrau and the Atyrau Region, – he noted. – Our priorities enshrined in the program include new construction and refurbishment of public health care and educational facilities. A total of eight schools were refurbished in 2012-2013, including three schools in the city of Atyrau, four in the Makhambet District, and one in the Makat District. Furniture and equipment for all these schools was funded by CPC-K.

This year's main targets include refurbishing and overhauling the maternity hospital to make it into a perinatal center of Atyrau, and the construction of three kindergartens, including in the Zhylyoi District (200 places), in the city of Atyrau (160 places) and in the Isatay District (160 places).

Our charity program also calls for supporting the most vulnerable parts of the population

Every patient will be provided with an individual life-support and monitoring system

of liaison with local and regional authorities and an honorary construction engineer of the Republic of Kazakhstan, elaborated on the truly impressive scope and scale of the CPC-K community activities performed within the framework of the Expansion Project.

– To provide charity assistance to promote socio-economic development in the regions of its presence, CPC-K has drafted a Social

– veterans, invalids and orphans. They are provided with targeted charitable assistance within the framework of the CPC-K social programs. It's a great pleasure to feel a part of our Company's good deeds. After all, the best mission in the world is doing good for people, – Bayerkhan Nurgaliyev concluded. ■

by Ekaterina Suvorova



Erniyaz Udreyev: "Everything is ready for connecting the medical equipment"



Ulzhan Khasanova: "Out patients will receive medical treatment in excellent conditions!"

The year of the “golden” jubilee

“HERE I AM AGAIN, MY THIRST FOR ISOLATION SATIATED. MY HEART REJOICES, YOU ARE MY LOVE, MY COMFORT, MY LAND OF IKI-BURUL!”

FROM IKI-BURUL, WITH LOVE

There is a good reason to start this article with these lines by the famous Kalmyk poet and writer Andzhi Tachiyev. The unique multi-ethnic land of Iki-Burul has given Kalmykia many talented people – politicians and community leaders, scientists, doctors, writers, artists, sportsmen – who have significantly contributed to the prosperity of their republic.

Its vast pastures and picturesque lakes inspire the people of the Manych steppes to great accomplishments in work, literature and science.

YESTERDAY AND NOW

Iki-Burul’s history starts in 1910, and the modern region of that name was established in 1965. From the beginning of 2015 the

region has been holding events to commemorate its 50th anniversary.

Iki-Burul region was created on the initiative of General-Lieutenant Basan Gorodovikov, Hero of the Soviet Union, and first secretary of Communist Party regional committee. The formation of the region triggered the rapid development of the remote southern areas of the Republic which had previously been distant pasture land of the Stavropol Krai. The district became a vast construction site, with new state farms established, and schools, hospitals, clinics and cultural, catering, communication and trading establishments appearing in every village. The Tchogray reservoir was built, which today is the start of the Black Lands irrigation system.

Today the Iki-Burul district is among the most stably developing ones in the Republic, and an important supplier of agricultural produce. Gas fields are being



Sergey Bazyrov: “CPC is a reliable economic partner for our region”

developed there, and it has some of the biggest fishery resources of the whole region.

The people of Iki-Burul suffered many of the political and economic hardships that Russia has undergone: the revolution, the Civil War, collectivization, the Great Patriotic War, the expulsion of the Kalmyk people to Siberia, their long-awaited repatriation, and the reinstatement of national autonomy. But the local people never lost heart, living in harmony with people of many nationalities, and working hard with a lasting belief in justice and a better future.

– The baton of past generations has passed into proper hands, – thinks Sergey Bazyrov, Head of the region- ➤





Participants of the “CPC for Talented Children” contest

al Iki-Burul municipality administration of the Republic of Kalmykia. – Educated and hard-working people, ready to work for the benefit of their homeland, have taken the place of the veterans. The Caspian Pipeline Consortium operates on the territory of the Iki-Burul region, contributing to the development of the Manych lands. CPC is a great example of a socially responsible business, and a reliable economic partner of our region. Thanks to considerable resources allocated by the Company for regional socially-oriented programs the people of my homeland feel that they are well cared for and receive real help. CPC supports talented children and contributes to improving educational, medical and sports facilities. On behalf of all the people of Iki-Burul I sincerely thank the Consortium for its considerable contribution to the prosperity of our land!

CPC FOR IKI-BURUL RESIDENTS

Cooperation between the Consortium and the Iki-Burul region has been developing successfully for 17 years. The Company methodically implements its annual programs that are targeted at



Lyubov Gorayeva: “We have the best dancers in the whole region!”

thousands of the region’s inhabitants (“CPC for Veterans”, “CPC for Talented Children”, “New Year and Christmas with CPC”, “CPC for First-graders”).

In addition, CPC renders targeted assistance to various regional organizations. For example, CPC allocated funds to implement a program of providing first-graders with clothes and school accessories, and also equipping classrooms with visual teaching aids. The Iki-Burul regional educational institutions have received “Gazel” vehicles, desks, interactive whiteboards, computers, printers and electronic appliances. The Company also purchased a water-carrier for Iki-Burul central district hospital and medical equipment for the paediatric clinic. Nor were local cultural establishments left out, receiving furniture and necessary equipment.

IN RELATION TO THE EXPANSION PROJECT

In 2011 cooperation between the region and the Consortium was taken to a new level. CPC-R and the government of the Republic signed an additional agreement, under which more than 73 mln rub will be assigned by the Company for regional social investment as part of the pipeline Expansion Project on the territory of Kalmykia. The funds will be used to reconstruct the building of the technical vocational school No. 5 and turn it into a primary school for 150 children.

In this jubilee year the Consortium allocated over 15 mln rub for the needs of the Iki-Burul region. The money will be used to build a sports ground in the regional center, and purchase vehicles for the Iki-Burul rural municipality, medical equipment for the local hospital, and furniture for the Manych secondary school. Traditionally its main focus is on the development of children. The young Iki-Burul residents can very soon expect more presents – a comfortable new bus and some new school desks from CPC.

MOTIVATION FOR STUDY AND CREATIVE WORK

– In January 2013 we received a “Gazel” minibus as a present from CJSC CPC-R, – remembers Lyubov Gorayeva, Director of MBGEI “Ut-Salinskaya Secondary School”. – It was a significant event for both the school and the whole village. With reliable transport, we started taking our students to contests, competitions, excursions, examinations and academic Olympiads, which saw them achieving high results in their studies and creative work.

The geography of our trips is wide. Last year, for example, our kids

went on a trip to Volgograd, and this year we took them to Greco-Roman wrestling competitions in Nalchik, Volgograd and Armavir.

The director stressed the importance of the Consortium's annual charity programs and remembered with pride that a dance group from her school came first in one of the "CPC for Talented Children" local competitions, and third in the republican one, with a plasma TV as their prize.

This year students from Ut-Salinskaya Secondary School also took part in the CPC ecological competition "Preserving the Nature of Your Homeland. Pearls of the steppes: the tulip and the demoiselle crane". Seventh-grader Galina Kotova and third-grader Marat Bashirov were among the winners and received diplomas and valuable gifts.

Lyubov Gorayeva addressed CPC management through "CPC Panorama":

The vast pastures and picturesque lakes inspire the people of the Manych steppes to great accomplishments in work, literature and science

– On behalf of all our students, their parents and teachers I would like to express my heartfelt gratitude for your good deeds, for taking care of our children and their future! We wish the Consortium further success and prosperity!

CHANGES FOR THE BETTER

Ekaterina Korzhuyeva, Director of MBGEI "Iki-Burul Pyurbeev Secondary School", continues the story of CPC's good deeds.

– September 1, 2014 went down in the history of our educational

institution thanks to the grand re-opening of the primary school after refurbishment. CPC charity funding – more than 73 mln rub – made it possible. What we have now is a modern two-story building with large auditoriums, a computer classroom, a gym, an events hall, rooms for after-school activities, a winter garden under a glass dome, a medical room, a canteen and a catering unit. Journalists from the republican mass

media who attended the grand opening noted that the children of this Kalmyk steppe village had received a truly royal gift – one of the best schools in the Southern Federal District!

The school has been eagerly awaited by children, parents and teachers. Since 1993 the primary school had been run in the premises of a former hotel. Narrow corridors, small dark rooms... Winter or summer, the children had to walk quite some distance to the main school building to have lunch.

Now both children and teachers have a new life. New educational



The new school is a symbol of good changes



Ekaterina Korzhuyeva: "We've got one of the best schools in the Southern Federal District!"

and information technologies are being used for lessons at the new school. Last school year it hosted republican conferences and seminars, as well as the regional stages of the "Teacher of the Year" contest. The participants of all these events were delighted by the comfortable conditions, and reached the shared conclusion: this is a school for the 21st century!

The new school for Iki-Burul is a symbol of good changes. Many thanks to the Consortium for its invaluable help and serious contribution to the future of our district! – Ekaterina Korzhuyeva concluded. ■

*Prepared by Baychha Manteyeva,
Elista office secretary,
Department for Communications
with the Government of the
Russian Federation*

Sarsembay Murinov:

“We must be fully prepared for the launch of new facilities”

THE TENGIZ-NOVOROSIYSK OIL PIPELINE STARTS IN KAZAKHSTAN. HOW DOES IT FEEL TO BE AT THE VERY BEGINNING OF THIS OIL ROUTE? DOES THE CPC-K TEAM FEEL A SPECIAL RESPONSIBILITY? “CPC PANORAMA” ASKED CPC-K EASTERN REGION OPERATIONS MANAGER SARSEMBAY MURINOV TO ANSWER THESE AND OTHER QUESTIONS.

– The greater part of Kazakhstan’s oil exports flows through our pipeline, which gives us a sense of pride as well as special responsibility, – Sarsembay Murinov says. – Thirty-five mln t out of the total 62 mln t of oil exported by Kazakhstan last year were transported through the CPC-K pipeline system. The CPC pipeline’s throughput capacity is increasing, and we plan to transport around 38-39 mln t of oil in 2015.

Maintenance of the pipeline’s Kazakhstan section is a very real challenge because of the unprecedented number of entities supplying oil into the CPC pipeline system through the two head-end pump stations. PS Tengiz receives crude from Tengizchevroil, and PS Atyrau – from Karachaganak Petroleum Operating B.V., Kaz-MunaiGaz, Kazakhoil Aktobe and Maten Petroleum. In the near future, the list of our suppliers will be joined by AGIP KCO supplying oil produced from the Kashagan oil field.

– Mr. Murinov, tell us about the unique CPC Oil Quality Bank.

– Our Oil Quality Bank is as unique as it is vitally important. Oil of different quality and different market value comes into the CPC pipeline system. The resulting combination produces the internationally well-known CPC oil blend.



Sarsembay Murinov: “People see it as a shared goal!”

The purpose of the Oil Quality Bank is to ensure fair payment to suppliers depending on the quality of their oil in comparison with the properties of the CPC Mix. Membership in the Oil Quality Bank is mandatory for CPC pipeline system suppliers.

The CPC Oil Quality Bank ensures that the oil blend has the optimal characteristics for subsequent processing at oil refineries, expressed in terms of API degrees and sulphur content. CPC acts as the administrator of the Oil Quality Bank, making relevant value assessments at the points of entry

and the shared end point (Marine Terminal) and coordinating the work of all contractors and consultants hired to support the performance of the Oil Quality Bank.

– What tasks face the Eastern Region team today?

– Our main task and everyday duty is to ensure uninterrupted oil transportation. For this we maintain our equipment in the necessary state of repair, maintain optimal working pressure in the pipeline, and ensure reliable protection of the facilities.

Simultaneously, we are preparing to operate the equipment that is appearing at the new and upgraded pump stations. And we train personnel to ensure the proper operation of the new facilities after their launch. Studying numerous user manuals and technical guidelines is only part of this work. After that, operators have to learn to apply the theory to practice, i.e. to master the operation of the equipment.

There is a very big difference between the old and the new! A good example is PS Tengiz. NM-2500 pumps with a capacity of 2,500 m³ are currently installed there. After the planned upgrades, new pumps with a capacity of 5,700 m³ will be installed there, i.e. with more than double the capacity of the existing

ones. In addition, a wide variety of new auxiliary equipment will be installed, which the personnel will also have to learn to properly operate and maintain. Representatives from the operations services control the commissioning process and make their contribution to the technical readiness of the facilities.

– What tasks are to be undertaken by the operations services in the final stage of the Expansion Project?

– We are busy accepting equipment in the course of individual testing, which is carried out on a step-by-step basis and is nearing completion at PS “Tengiz” and PS “Atyrau” (status as of late May 2015, – Ed.). The work is performed in strict compliance with the Expansion Project Facility Acceptance Algorithm, in which the actions to be taken by each CPC service are specified in full detail. We are performing acceptance of as-built technical documentation in line with the Acceptance Documentation Management Plan for the Facilities in the Republic of Kazakhstan. Of course, we encounter some difficulties, which our team manages to overcome.

In order to be fully prepared for the launch of new facilities we give special attention to training the relevant services in the techni-

cal aspects of the new equipment. Maintenance and repair plans are already being drafted and spare parts requirements identified. This really requires our employees to work to the limit of their capacity. Our engineers work 10-12 hours a day. The operations personnel at the pump stations work particularly hard.

– How do employees react to such higher levels of work?

– They are coping OK – they don’t even ask for days off. People see it as a shared goal. The project’s pre-completion rush is putting each and every member of the team to the test. The increase of the CPC pipeline system’s throughput capacity is inspiring the team. For example, plans call for PS “Tengiz” to pump 25.5 mln t of oil in this year, which will be a dramatic increase from the 23.5 mln t pumped in 2014.

We are going through a very interesting period. Not everyone has the chance in his working life to be involved in such a major project, with facility upgrades and the launch of cutting-edge equipment and new pump stations. This is truly the opportunity of a lifetime for the pipeliners, a time when specialists have the opportunity to gain priceless experience which will define their professional careers. The unique period will, how-

ever, end in two years, and those who join us after the completion of the Expansion Project will not experience the drive we are lucky to enjoy today.

– What tasks will become paramount after the Expansion Project’s completion?

– It will be time to fine-tune all the work algorithms. The operational personnel will have to ensure the reliability and stability of the CPC pipeline system operating within its new parameters.

In my opinion, we will face the task of increasing the operating efficiency of the whole CPC pipeline system. With a choice of new pump stations available, we will be able to ensure optimal operations mode, choosing between one or another station depending on various factors, such as hydraulic regime and the cost of resources (electricity, gas) in different regions. The upgraded head-end pump stations – “Tengiz”, “Atyrau”, “Komsomolskaya” and “Kropotkinskaya” – will operate 24/7.

– How are personnel issues being resolved in the Eastern Region?

– Search, hire and relocation of personnel is performed in line with the unified corporate procedures. The search area is fairly wide. Information about job »





Zero kilometer of the Tengiz –
Novorossiysk oil pipeline

openings is first circulated among CPC-K employees by e-mail. As required by Kazakh labor law, information about a job opening is sent to the Atyrau region's HR authority. CPC job openings are published on the CPC corporate website and on HeadHunter.

The recruiting companies Ancor and Fircroft, with which CPC-K has relevant agreements, as well as print publications, are also involved.

In considering job applicants, our HR officers take into account recommendations from other CPC employees, our contractors and partners. The HR Department shortlists submitted CVs and forwards those that meet CPC requirements to the relevant managers for their consideration. The most promising candidates are invited for interview to select the very best for hire. Preference is given to oil industry professionals.

– How much will the number of operations personnel increase with the launch of the new facilities?

– With the launch of A-PS-3A and A-PS-4 the number of personnel on the CPC-K Operations Department

payroll will increase by around 90 people from the present figure.

– Will specialists involved in the Expansion Project be given jobs at CPC facilities?

– CPC-K has a skill pool made up of both the Consortium's core employees and the Expansion Project staff members who are to be reassigned to positions which appear at the new sites. It should be noted that those Expansion Project employees who have taken part in the construction and commissioning work know our facilities inside out, so their expertise will be very valuable in the operation process.

– Are there any age limitations?

– As of today, the average employee age in the Eastern Region is 43, and under no circumstances can we allow it to increase further. Otherwise, we risk finding ourselves in a situation where most of the professionals who currently form the core of our staff will be retiring and the pipeline will be left without skilled personnel. We have to take this factor into account when hiring new people. So young people are very welcome. This, however, does not mean we practice age discrimi-

nation. Professionalism always comes first.

We run a mentoring program for our old-timers to share their experience with the younger employees. This is a tried and tested approach to establishing relations between the generations, and it gives excellent results.

For more than six years now we have been successfully running an internship program, which gives graduates of the relevant higher educational institutions a good opportunity for professional employment. It is no secret that graduates often have problems finding a job matching their specialization. Our program has opened up such a path into the profession for many of them.

– Mr. Murinov, do you find young specialists today to be like those with whom you started your career in the industry?

– They are very different people. We were not that forward-looking. It's evolution! Speaking seriously, I like our young specialists particularly for their PC and IT knowledge and skills. They are more open and sociable, they have a zest for life and various interesting hobbies. As for my generation, work was the number one factor for us and we gave ourselves to it entirely, often sacrificing our health and even our lives to achieve our goals. I remember how once, hurrying to plug a crack in the pipeline, we took turns diving into an oil spill pit. Nobody then would even consider stopping the pipeline to repair such accidents. Nowadays such heroism is not encouraged at all because human life, and not performance indicators, is the top priority. Times change, and they bring new people, new values and new technologies. That's progress, after all! ■

Interview by Ekaterina Suvorova

From “Tengiz” to “Atyrau”



THE CPC PIPELINE'S ZERO KILOMETER POINT IS LOCATED NEAR ONE OF THE WORLD'S LARGEST OIL FIELDS – THE TENGIZ OIL FIELD.

The Tengiz field, together with the Korolevskoye field that forms part of it, is estimated to contain nearly 1 bln t of recoverable oil, and its overall explored reserves are forecast at over 3 bln t. Therefore, the CPC pipeliners will be busy for many years to come.

FILE LEADER

Crude oil arrives at PS “Tengiz” from the Tengizchevroil oil treatment plant. After passing through strainers and metering units, the oil is fed to the Tank Farm from where it runs further through a booster and main pump units, pressure adjustment unit and finally into the main pipeline to begin the 1,500-km long route to Novorossiysk.

– Here in Tengiz we feel particular responsibility for the pipeline and its operation, – PS “Tengiz” manager Salamat Altynaliyev told “CPC Panorama”. – We are at the head of the route. If we stop, the whole pipeline will stop.



Makhsut Muratov

As at all CPC facilities, professionalism and discipline are highly valued at PS “Tengiz”. It is a stable and consolidated team. Many have been here for some 14 years now, in other words from the very start.

– PS “Tengiz” is staffed on a rotational basis. People are attracted by high salaries and social benefits, – PS “Tengiz” deputy head Makhsut Muratov explains. – No less important are the high safety and health standards. No accidents or injuries have occurred at the station over the almost 15 years of its operation.

Actually, the station was originally built back in the Soviet era, but “CPC Panorama” correspondents failed to find any signs of that during their visit. Today, PS “Tengiz” is a beautiful and modern high-tech facility boasting exemplary work practices.

DOUBLE CAPACITY

After the completion of the Expansion Project, the capacity of PS “Tengiz” will double, as will that of the station’s main line pumps and metering units. New facilities include a new building to accommodate the main pump station, a garage and a mechanical workshop. »



Askar Tazhigulov

A pig launcher station, indoor switchgear, oil metering unit, cable rack and other ancillaries have already been constructed and will soon be launched into operation.

The following facts and figures testify to the scale of the work already performed: The Expansion Project contractors, whose personnel numbered 600 people at the peak of work, have laid 160 km of power and control cables.

– Each of the three electric motors we installed in the main pump station weighs 19 t, and the whole pumping module, which is as high as a two-story building, weighs, together with its framing, 40 t, – Mukhit Utarbayev, deputy coordinator for start-up and commissioning at the Expansion Project's Atyrau Office, noted.

Work elements successfully completed at PS "Tengiz" by the end of this past spring include the installation of tie-ins, emergency shutdown systems, fire and smoke detectors, programmable logic controllers and SCADA. Pre-start safety reviews were completed

and commissioning activities and preparations for comprehensive tests of all systems and equipment were performed. Delivery and acceptance of Expansion Project facilities at PS "Tengiz" is scheduled for October 2015.

Next on the oil route toward Novorossiysk is PS "Atyrau" – the Consortium's biggest pump station. Here oil from the Tengiz field is joined by that from local fields. PS "Atyrau" currently has five metering units and after the Expansion Project's completion that number will increase to eight.

In addition to the new metering units, thanks to the Expansion Project PS "Atyrau" will be adding two 25,000 t crude oil tanks, two main and four booster pumps, strainers, indoor switchgear and other ancillaries. Given that the pipeline's operating pressure will increase by 50%, PS "Atyrau" will be equipped with a surge relief system.

IMPORTANT PROJECT

– Pipeline capacity increase has already become evident with the launch of the Expansion Project's new facilities. Over 35 mln t of oil ran through PS "Atyrau" in 2014, including Western Kazakhstan oil, oil coming from the KazTransOil system and from Karachaganak Petroleum Operating. Oil from the Kashagan offshore field will also enter the CPC pipeline via PS "Atyrau", – PS "Atyrau" manager Askar Tazhigulov told "CPC Panorama".

Of course, the PS "Atyrau" team is happy about such a substantial increase in oil transportation through the pipeline. Everybody understands that the pipeline's capacity expansion will create more jobs and will make life better for the local population in the Consortium's areas of operation.



Elena Mukhayeva

– I'm very proud of my country and the Company, which runs large and important projects like this, – Test Laboratory chief Elena Mukhayeva says.

The work of laboratory analysts is both challenging and exciting. They deal with a wide variety of oils, which are different even in color, ranging from light-yellow to black.

Leading Kazakh specialists are convinced that the CPC pipeline capacity expansion, accompanied by sweeping modernization of equipment, will help to drastically increase both the environmental and industrial safety of the whole enterprise. In a recent speech, the prominent environmental scientist and Full Member of the National Academy of Sciences of Kazakhstan Muftakh Diarov highly praised the Consortium's business activities in Kazakhstan. ■

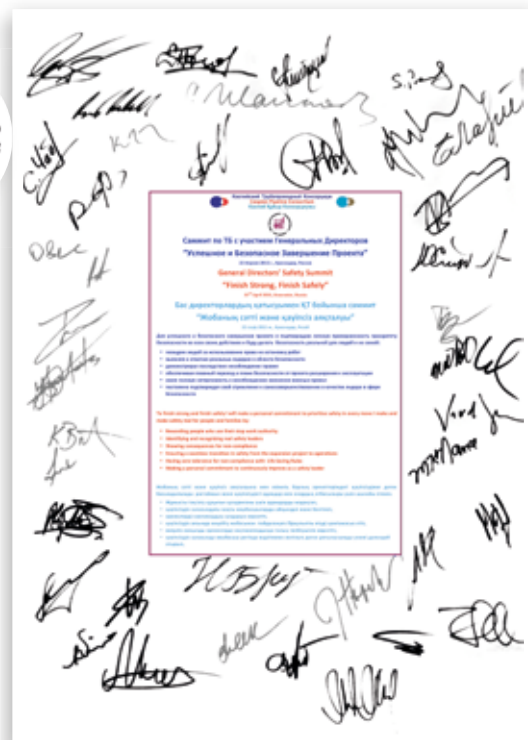
by Pavel Kretov

With commitment to safety toward successful completion of the project

LEADERS FROM ACROSS CPC AND THE EXPANSION PROJECT GATHERED TOGETHER FOR THE THIRD GENERAL DIRECTORS SAFETY SUMMIT HOSTED BY CPC IN KRASNODAR ON 22 APRIL OF THIS YEAR.



A PS-4: Building contractors – for security work at the facilities expansion project!



Those in attendance included CPC General Director Nikolay Brunich, the CPC Management Team, Expansion Project Leadership Team, PMCs, and Directors from our major contractors. In total there were over 60 participants. The focus of the Summit was how to successfully and safely complete the Expansion Project as it reaches the end of construction in 2016. The leaders spent the day discussing safety and the challenges facing the Project as facilities are completed. The final result was a new Statement written by everyone and the signed to demonstrate their commitment. The Statement is titled “Finish Strong, Finish Safely”.

CPC and the Expansion Project have always been dedicated to having a strong and effective safety program. The safety slogan “Be Safe, Go Home Happy” developed in 2011 has helped to guide the Project and to protect our workers. Everyone in CPC, the PMCs, and contractors have been working hard to deliver the Project over the past several years, at many locations without having the pleasure to celebrate completion. The Leaders are concerned that this can lead to complacency or a loss of focus on safety. At the same time a majority of the facilities are close to completion this year. Therefore the participants in the Summit wanted to renew and re-energize everyone’s commitment to a strong finish and to a safe finish.

The challenge now will be to bring the new Statement to life to ensure that the commitments made by the Leaders will achieve the intended results and we can celebrate our successes . The Expansion Incident and Injury Free Leadership Team (IIF LT) will be working with CPC management to roll out the Statement throughout CPC and the Expansion Project. Hopefully over the next few months everyone will notice the difference. For example, the Project logo is being updated to focus on Finish Strong, Finish Safely! ■

by Simpson William
Deputy General Director, Project and
Engineering



Talgat Ukasov:

“We have one pipeline, one project and one goal”

TALGAT UKASOV WAS APPOINTED AS PS AND PIPELINE CONSTRUCTION COORDINATOR IN KAZAKHSTAN IN APRIL 2014. SINCE THEN, WORK HAS PROGRESSED DRAMATICALLY AT THE CONSORTIUM'S NEWLY CONSTRUCTED AND REFURBISHED FACILITIES. WORK CONTINUES ON ALL THREE PHASES OF THE CPC EXPANSION PROJECT ALONG THE 500 KM PIPELINE SECTION FROM TENGIZ TO THE RUSSIAN BORDER.

– Mr. Ukasov, work to expand CPC pipeline's capacity is under way on both sides of the Russian-Kazakh border. How would you appraise the existing level of collaboration between specialists in Kazakhstan and CPC Moscow Office staff?

– The collaboration is close indeed. Not only by telephone, fax or e-mail, but in person too.

Specialists from Moscow visit us on a regular basis, and we receive really strong support from them. It is well known that the Expansion Project is proceeding faster in Russia than in Kazakhstan, and our Russian colleagues willingly share with us their valuable experience. For example, the lessons learned in the course of upgrading PS “Komsomolskaya” and PS “Kropotkinskaya” in Russia

were useful for the teams working at PS “Tengiz” and PS “Atyrau” in Kazakhstan, particularly regarding the installation and fine-tuning of the communication and control systems. CPC General Director Nikolay Brunich and his deputies visit Kazakhstan very frequently. These visits are definitely important as they both positively influence the work progress and create an awareness of the importance of what we are doing here together with our contractors. We have one pipeline, shared goals and objectives, and a joint project, and we do not view the border as a dividing factor.

– How would you appraise collaboration between CPC and Kazakhstan Pipeline Ventures? How do you build relations with the contractors?

– CPC staff exercises general management and control of all activities within the Expansion Project. Kazakhstan Pipeline Ventures, a subsidiary of KazMunaiGaz, is a management company contracted for the purpose of work optimization and increased efficiency.



It is impossible to manage the Expansion Project from an office. Therefore, Talgat Ukasov and most of his staff regularly visit all the construction sites

The main tasks assigned to Kazakhstan Pipeline Ventures include surveillance of HSE and schedule compliance by the contractors, monitoring of equipment and materials procurement, and preparation of as-built and acceptance documentation.

In the course of the project, specialists from CPC and Kazakhstan Pipeline Ventures have become a well-coordinated international team of professionals. For example, in our project we have two integrated CPC/KPV teams in charge of HSE and procurement monitoring. Each team member is assigned certain clearly formulated functions, which are performed on the basis of strict planning, synchronization, work allocation and task detailing.

The principles of our interaction with KPV include professional ethics, transparency and coordination.

Team work is of critical importance for any project's success, where each team member is assigned a clear-cut scope of functions and duties to be observed and complied with irrevocably. This too is the basis for our interaction with the management company and the contractors – teaming up to identify problematic areas and figuring out ways to resolve them, and applying coordinated approaches to all key aspects of project implementation.

Cooperating closely with the management company and the contractors we always find effective solutions to all problems.

– You moved to CPC from KazStroyService, the Expansion Project's general contractor. Do you find your unique experience and your ability to see the project from both sides helpful?

– Of course. A great deal depends on the human factor, on the ability to find a common language with all those involved in the Expansion Project.

It is very important for each contractor to be provided with design documentation and designs ahead of time, as well as with the opportunity to expeditiously coordinate and resolve all issues that may appear by proposing solutions. In view of that, to avoid holding up the work of the contractors at the pump stations under construction, the CPC General Director decreed to set up working groups vested with powers to promptly resolve working issues relating to design, quality of work, and the timely supply of materials, etc.

– What major operations have been carried out within the Kazakh part of the Expansion Project since the beginning of this year, and which are planned to be completed by the end of 2015?

– This past spring we successfully performed cut-overs of general purpose programmable logic controllers at PS “Tengiz” and tie-ins for connecting new facilities to PS “Atyrau”, “Tengiz” and A-PS-4. These were important operations, and now we are able to continue construction work in uninterrupted mode and without creating any obstacles to oil trans-

portation. Also, individual tests were performed at PS “Atyrau” followed by the supply of oil to certain sub-facilities. By the end of this year plans call for completing the construction and installation, commissioning and system tests to put PS “Atyrau” and PS “Tengiz” into operation and deliver the full package of as-built documentation to the CPC Operations Department.

– Which tasks of the Kazakh part of the Expansion Project would you characterize as first priority?

– The completion of individual and system tests, and putting PS “Atyrau”, PS “Tengiz”, power substations at A-PS-4 and A-PS-3A and overhead power line OHPL-220 kV into operation.

– Heavy rains caused serious flooding in Western Kazakhstan in May 2015. Did these adverse weather conditions affect the speed of construction work?

– Not at all. CPC maintains the highest level of industrial and environmental safety which is why we managed to continue work in the normal course of business even in such unfavorable weather conditions. We attach great significance to HSE compliance both for CPC staff and for our contractors, and we view safety as the top priority and basis of all our activities. We always perform risk assessments to include a wide variety of factors, including adverse weather conditions, and we take necessary preventive action well in advance. ■

Interviewed by Pavel Kretov



On the Kazakh steppes

EVERY TUESDAY A TEAM FROM THE EXPANSION PROJECT'S ATYRAU OFFICE FLIES TO PUMP STATIONS A-PS-4 AND A-PS-3A, WHICH ARE UNDER CONSTRUCTION, TO PERFORM AN INSPECTION TOGETHER WITH SPECIALISTS FROM KAZAKHSTAN PIPELINE VENTURES, KAZSTROYSERVICE, AND ENGINEERING AND DESIGN SUPERVISORS. "CPC PANORAMA" JOINED THE INSPECTING TEAM IN A MI-8 HELICOPTER.



Late May 2015. Intermediate pump station A-PS-4 is being constructed amid the steppes, sands and salt lands of western Kazakhstan, 100 km from the Russian border. Surrounded by sand dunes, the site is swarming with activity. Construction of industrial facilities, amenities, firewater tanks and cableways is under way. Huge

gas industry's leading construction and installation company.

– Our “Red Army” is awaiting reinforcements. We still need to mobilize 400 more people. A major increase in our ranks is scheduled for early June, – CPC-K PS and Pipeline Construction Coordinator Talgat Ukasov told “CPC Panorama”.

Very strict requirements are set for construction quality – even higher than those established by the relevant regulations

pipes “dive” underground before re-emerging at surface level. The scene is filled with the movement of bulldozers, excavators, cranes and huge KAMAZ trucks. The red overalls of the contractor personnel are visible in the cabins of the machines, in cradle cages and on scaffold platforms. Red is the trademark color of AO NGSK KazStroyService – the Kazakh oil and

Expansion Project specialists together with the contractors have determined which elements need to be completed first to make it possible to continue later with other work phases.

– In the first place, we need to complete all engineering systems – the mainline pump station, pipeline surge relief system,

strainers and indoor switchgear, – CPC-K facility manager Vladimir Yelgayev explained. – When these systems are in place, we will be able to proceed with laying foundations for cable racks and will complete earthwork.

Next on the list is the specialized work – installation of automated control and communication systems, I&Cs, air conditioning, ventilation, etc. AO NGSK KazStroyService project director Adzhit Manku assured us that contracts for the performance of this work have been signed, and the necessary materials and equipment ordered. Recalling that over the last year the tempo of construction was around 7-8% per month and given that the 66% completion landmark was achieved by late May, there is every reason to hope that construction will be completed in the next four months.

– The most important thing now is that the weather will be favor-



A-PS-4 is the Expansion Project's second phase facility



At the A-PS-3A construction site in western Kazakhstan



AO NGSK KazStroyService construction workers at A-PS-3A

able, – KOO Kazakhstan Pipeline Ventures Director (Construction) Sandro Yagmurov remarked. – Last summer it was terribly hot – almost 45 °C.

To avoid health problems, workers took a 15-20 minute break after every 30 minutes of work.

It was no easier in the winter when the temperature fell to minus 43 °C. And this last spring the wind, at over 12 m/s, disrupted load-lifting operations. Fortunately, a period of rain was quite helpful for A-PS-4 construction as it occurred right at the time when the workers were performing backfill at the site. The water, falling heavily from the skies, allowed the workers to perform ground compaction quickly and effectively.

The construction of the power supply system for A-PS-4 is almost finished.

– Individual and modular tests of the substation have been completed and preparations are under way for system tests, – CPC-K Power Supply and Cathode Protection Lead Engineer Marat Yesengeldin said.

Power supply to the pump station will be organized following a unique scheme, which has no analog in Kazakhstan's other oil and oil transportation enterprises. The scheme will involve two independent overhead power lines and a 220x10 kV dedicated substation where two 25 MW transformers have been installed. With such reserve capacity it will be possible to meet the needs of further consumers if that becomes necessary.

Wishing luck to the A-PS-4 construction team, "CPC Panorama" took the helicopter with the working group to the construction site of A-PS-3A, which is being built

as part of the Expansion Project's third phase. From the helicopter's window it was obvious that the soil there is darker and very different from the sands surrounding A-PS-4. Nobody here will thank the heavens for a shower. Even light rain will see the heavy machines, such as KAMAZ trucks or pipelayers, become hopelessly stuck in mud up to their axles. It will then be possible to move them only when the ground dries.

In order to complete construction by the spring of 2016 and to proceed with commissioning and launch, A-PS-3A is also planning for a considerable additional mobilization of personnel. AO NGSK KazStroyService Administrative Manager Natalia Dryamova is busy doing preparatory work to expand the camp and the canteen.

– Construction is, of course, of primary importance, but there are a number of administrative issues to be resolved, – Natalia remarked. – We provide the construction workers with comfortable accommodation and adequate nutrition. Salads, hot meals, a choice of two main courses, fruit and pastries. Some housewives would envy such a choice of meals.

Technical supervision of work at the Expansion Project's pump stations is provided by Bureau Veritas and TOO Kazakhstan Industrial Service.

– Our multi-level control system allows the avoidance of mistakes during construction, – Bureau Veritas manager Yevgeny Shatov explained. – Very strict requirements are set for construction quality – even higher than those established by the relevant regulations. Since the client is putting considerable investment into the project, this is his right. ■

by Pavel Kretov

A unique hoisting operation in Novorossiysk

A UNIQUE HOISTING OPERATION HAS BEEN ACCOMPLISHED AT THE CPC MARINE TERMINAL'S TANK FARM. SEVERAL TRUCK-MOUNTED CRANES WEIGHING NEARLY 40 T EACH WERE HOISTED AND REMOVED FROM FOUR FRESHLY INSTALLED 100,000 M3 VERTICAL STEEL TANKS IN APRIL 2015. A TOTAL OF NINE SUCH OPERATIONS WERE CARRIED OUT AS PART OF THE EXPANSION PROJECT IN NOVOROSSISK.



There's nothing impossible for true professionals

A non-specialist will likely ask: why should the construction of a tank be performed with a crane inside it? We asked Pump Stations Coordinator (RF) Igor Lisin.

– Truck-mounted cranes inside are needed for the assembling and installation of the tank's floating roof. The tank floating roof is assembled from a large number of sections weighing around 20 t each, and its overall assembled weight may reach several thousand tonnes, – Igor explained. – Of course, a temporary service opening could be provided for moving a crane in and out, but, as previous experience demonstrated (including the experience of building Tank No. 8), such an approach is much less convenient and more time-consuming.

Such operations have certainly been performed in Russia before. Koksokhimmontazh, for example,

successfully performed similar operations during the construction of tank farms in Russia's northern and eastern areas. Usually, such operations also involved standard truck-mounted cranes. However, it was the first time that such heavy cranes were to be removed from 100,000 m³ tanks with a wall height in excess of 20 m. Therefore, the operation required a special approach, special personnel training and a special extra powerful 200-tonne gigantic crane.

In support of the operation, OJSC Uralmetallurgmontazh manufactured a special load-handling fixture at their factory in the city of Izhevsk. Another company, LLC PK Ural-technologiya, designed special slings capable of holding a 20 t load each, and 25-tonne lifting brackets. A 200-tonne mighty Liebherr crane arrived at the construction site complete with countweights to a total of 65 tonnes needed for its stabilization.

Project Manager and Director of Chevron Neftegaz Inc. Branch MARK KEVIN NANCE comments:

I'm very satisfied with how the hoisting operation was performed in the project. In the early stages of project planning we understood that a very large number of hoisting operations, including a lot of very difficult ones, would be needed to support the safe and efficient performance of mechanical installation work. We brought in specialists from all over the world, and we are very proud of our team of professionals in charge of managing the project's hoisting operations! The safe hoisting of cranes to a height of more than 20 m above the tank's last shell course added another glorious page to the story of the Expansion Project. Several more hoisting operations remain to be carried out, and we expect equally excellent results.

The jumbo crane was thoroughly inspected to verify its compliance with all applicable safety requirements. The Expansion Project specialists examined the crane's main hoisting line, limit switches and safety controls.

Computer settings were verified and examined for conformity with the results obtained from preliminary calculations. Under the plan, the crane's actual load was not to



This was the first such operation to be carried out in Russia to remove cranes from 100,000 m³ tanks with a wall height in excess of 20 m.

exceed 80% of its maximum load capacity.

– The operation was carried out by employees from LLC Koksokhimmontazh North-West from the Leningrad Region city of Primorsk and LLC Metallurg-Tsemremont from the Altai city of Zarinsk, hoisting equipment supervising engineer from CJSC Koksokhimmontazh Roman Timoshenko commented. – Since one crane was hoisting another, with one beyond its visual sight line of the other, a radio exchange was arranged between the specialists who managed the performance of work inside and outside the tank. The operation involved six slingers: two on the tank's bottom, two outside, and two on the tank's wind girder.

On average, preparatory work for each hoisting operation at the Novorossiysk construction site took around 24 hours, while

the removal of a truck-mounted crane from a tank took around 30 minutes. The speed of work reached its highest point on April 3-4, 2015, when four cranes were “rescued”.

Among other challenging hoisting operations performed by the

team, attention should be paid to the installation of 20-tonne gate valves in the Tank Farm in the fall of 2014. Still to be performed under the Expansion Project remains the erection of several 60-meter tower masts. ■

by Yelena Belichenko

Commentary from MATTHEW JAMES PORTACCI, Health, Environment and Safety Manager (HES) Chevron Neftegaz, Inc.:

There is nothing surprising in the fact that the recent challenging hoisting operations at Vertical Steel Reservoir No. 7 and Vertical Steel Reservoir No. 9 were in full compliance with the Incident & Injury Free practice principles. From the very start of the project, the Project Management Contractor invited specialists from an outside organization specializing in hoisting operations (ServTech). Apart from work supervision, their tasks included rendering assistance to the subcontractors involved in the planning and performance of challenging operations, as well as inspection of equipment. Such cooperation is a good example of how one can run a project in compliance with the applicable Russian laws, regulations and standards, while at the same time taking advantage of the full international experience accumulated in the field. The result is the hundreds of hoisting operations performed safely every month.

Learning at every opportunity

AS A BOY, SENIOR ENGINEER FOR CIVIL DEFENCE, EMERGENCY RESPONSE, OIL SPILL RESPONSE AND FIRE SAFETY OF THE CPC WESTERN REGION ANATOLY IGNATKIN WANTED TO FOLLOW IN HIS MOTHER'S FOOTSTEPS AND BECOME A DOCTOR. BUT A MOMENT CAME WHICH WOULD CHANGE EVERYTHING...



Anatoly Ignatkin at PS "Kropotkinskaya"



Ignatkin (second from left) with his Emercom colleagues in the 1990s

It was when his classmates met their elder brothers, students of the Lvov Fire Engineering School, coming home for their summer vacations. Their elegant, military-style uniforms, glittering belt buckles, and star buttons, were a dream for post-war boys.

After finishing Fire Engineering School, Anatoly returned to his native Krasnodar Krai as a lieutenant. His career proceeded successfully – from platoon commander to service department inspector, to unit head. He was in charge of managing all the fire-fighting divisions in Krasnodar, some 800 people in all. Then he became chief of operations at the Emercom territorial division, which has some 9,000 employees. In that capacity he was in charge of fire safety, ensured the readiness of the Krasnodar Krai civil defence system and protection of the population and land from both natural and man-made emergency situations. Asked about his most challenging operations, Ignatkin mentioned the fire at the Pribrezhnoye gas field on the coast of the Sea of Azov in 1993. Major fire-fighting forces fought that fire day and night for nearly two weeks.

In 2002, Ignatkin came to work with CPC, where he had to create fire safety services from scratch at all the Consortium's facilities – from Tengiz to Novorossiysk.

– First, having prepared the relevant documentation, we organized volunteer fire-fighting brigades, – Anatoly Ignatkin recalled. – Then,

in 2003-2004, we proceeded with the formation of professional fire-fighting units at the stations.

The first fire-fighting units appeared at PS "Tengiz", PS "Atyrau" and PS "Kropotkinskaya", and later at PS "Astrakhanskaya" and PS "Komsomolskaya".

The largest fire-fighting unit, consisting of 100 people, is at the Marine Terminal's Tank Farm. Professional firemen are provided with the best modern equipment and are on duty at the facilities of their responsibility. If necessary, they travel to undertake gas-hazardous operations at the pipeline's mainline.

Today, civil defence, emergency response, oil spill response and fire safety units exist in every region in which CPC operates. Their duties include establishing relations with the Emercom and other supervisory authorities and organizing large-scale drills to perfect skills in oil spill mitigation. Such drills are held on a regular basis in all regions along the Tengiz-Novorossiysk pipeline route and represent an integral part of CPC's policy aimed at achieving maximum reduction of industrial side-effects on the environment, and to ensure observance of all applicable environmental and sanitary regulations of the Russian Federation and Kazakhstan.

– We maintain regular contacts and readily exchange experience with our colleagues from other regions of Russia and Kazakhstan. Never, and under no circumstances, should you boast about your status, and you should take every opportunity to learn – that's what I was taught at the beginning of my career in fire-fighting by my superiors who were WW II veterans, – Anatoly Ignatkin concluded. ■

by Pavel Kretov



A respectable result

CPC-K ENVIRONMENTAL ENGINEER SALTANAT SAPAROVA WAS AMONG THE WINNERS AT THE ENVIRONMENTAL ENGINEERING COMPETITION IN THE ATYRAU REGION.

We found Saltanat at her workplace making last minute preparations for the upcoming event. The regional competition to select the most environmentally friendly companies was due to take place in Atyrau two days later, on May 22. CPC-K had chosen Saltanat to represent the company at the competition, and she approached the mission with all her characteristic responsibility and perfectionism.

The preparatory work, which took one month, included preparing a rhymed welcoming address, a presentation featuring the company's and the participant's personal contribution to the cause of environmental protection in the Atyrau region, and a talent competition. Furthermore, each participant had to answer questions on the Environment Code - the main document containing the provisions of all the relevant laws of the Republic of Kazakhstan in the field of ecology and environmental protection. Saltanat did not worry about the latter challenge, since she uses the Code almost every day in her work. She prepared a presentation highlighting measures

taken by CPC to protect birds from being hurt by contact with high-voltage power lines. Her presentation was powerful, demonstrating the relevance of the problem for the Atyrau region and the approaches taken by the Consortium to alleviate it, including the SIP-3 self-supporting insulated conductor and ultrasonic bird repellents. The competition's assignments in creativity were the most challenging, however.

– I found someone who wrote poetry, I looked through all the newspapers, and browsed the Internet, – Saltanat recalled. As for the talent competition, I received a lot of help from my colleagues. A big thank-you to them for that! Finally I was ready to face the main challenge – I had to perform well to present our company in the best light, as it definitely deserved. It was a huge responsibility!

Saltanat coped with her mission well and came in second, defeated only by another competitor who was representing Tengizchevroil. ■

by Ekaterina Krapivko

Pipeline of life

CPC IS A RELATIVELY YOUNG PROJECT: THE TENGIZ-NOVOROSSIYSK PIPELINE WILL TURN 15 IN 2016. NEVERTHELESS, THE PROJECT ALREADY HAS ITS VETERANS: SPECIALISTS, WHO KNOW THE WHOLE PIPELINE INSIDE OUT. PROFESSIONALS – FOR WHOM THERE IS NO SUCH THING AS A PROBLEM THAT CAN'T BE SOLVED WHEN IT COMES TO THE PIPELINE, AND WHO CAN ALWAYS BE ASKED FOR ADVICE – ABOUT BOTH WORK AND LIFE.

THE DUTY OF WORK

Alexey Fomenko, Western Region – Operations Maintenance, O&M Manager, came to work with CPC in 2001, after 30 years working for Transneft. Construction was then nearing completion, and acceptance of the new facilities was in full swing. Simultaneously, the pipeline's mainline was being

– Things were going on – not without problems. The filters at the entrance to the Marine Terminal's Tank Farm got clogged-up and the team had to work through the night to clean them up. They managed it! On that August morning in 2001, the oil arrived in the tanks at the pipeline's end point, – Alexey recalls.

the Tengiz-Novorossiysk pipeline operation will long remain in the memory of the consortium's veterans. They were a challenge for the Consortium's specialists, who gained precious knowledge and experience.

– I'm proud of our Western Region's team, a team of true professionals. These are people I can rely on, whether for maintenance of the mainline and major facilities, electrical and mechanical equipment, instrumentation and controls, etc. They have been through many steps in their careers, they have worked as shift managers and now they hold managerial positions in the Krasnodar office, – Fomenko continued.

The rich experience gained in the upgrade of the pump station «Kropotkinskaya» is used today in the construction of other stations

prepared for operation and filled up with oil. Some specialists were literally “moving with the oil,” while others, Alexey Fomenko among them, were to meet the “black gold” in Novorossiysk.

After completion of work at the Tank Farm, he took part in the commissioning of PS “Kropotkinskaya”. In summer 2002, all three mainline pumps and ancillary facilities of the station were launched. Those first years of

ALL DONE ON TIME!

The Expansion Project, launched in 2011, was another challenge and an opportunity for the Western Region's specialists to once again prove their professionalism. The project required working under pressure, simultaneously coping with the ever-increasing transportation volumes, and doing construction work.

– The performance of construction work at the operating facilities demanded particular attention. As far as our region is concerned, one such facility was PS “Kropotkinskaya”, – Fomenko noted. – At the peak of its work, some 200-300 people from the contractors were involved.



Main line pumps at PS-7



Alexey Fomenko: "These are people I can rely on, whether for maintenance of the mainline and major facilities, electrical and mechanical equipment, instrumentation and controls, etc. They have been through many steps in their careers, they have worked as shift managers and now they hold managerial positions in the Krasnodar office."

Of course, all of them had to be given detailed instructions, such as: watch out, this is a power cable on voltage, that's a pipeline with pressure, and that equipment is in operation.

The Western Region's specialists did their best to ensure a safe working environment for the contractors. CPC employees were on permanent duty, next to excavators and hoisting equipment, and at sites where the most difficult work was performed. They monitored the equipment's state of repair, the availability of personal protective equipment, and fire safety compliance, etc.

The issues of access control, labor safety and health have always been a top priority at the regular meetings held with the Expansion Project's participants. The practice continued through to the very last day of construction, until all the equipment had been launched and the last construction contractor had left.

BOTH PRESTIGIOUS AND INTERESTING

Now it is time to look back and evaluate the first results, achieved through hard work.

– Just imagine, work was still going on here quite recently. There were pits and trenches all over the place, with foundations and structural steel under installation.

Now the facilities built as part of the Expansion Project and under Stage I have combined, creating a harmonious picture of a single major industrial complex. They're even painted in the same color, – Fomenko remarked.

The rich experience gained during the modernization of PS "Kropotkinskaya" is currently being used in the construction of other pump stations. After the completion of the Expansion Project there will be five pump stations in the Western Region. As a result, the number of employees in the Operations Department is increasing.

Alexey Fomenko said he wished the new CPC employees to be diligent and honest about work and to put every effort into improving their skills and knowledge.

– People with a responsible attitude to work are always noticeable, and our work is both prestigious and very interesting. 'Pipe-liner'! That has a proud ring to it! – Fomenko concluded the interview. ■

by Pavel Kretov

Panoramic view of PS "Kropotkinskaya"

Miles under the sea

KNOWN FOR HIS WIT, NAPOLEON BONAPARTE ONCE SAID THAT AN ARMY MARCHES ON ITS STOMACH. WITH THE APPEARANCE OF MOTORIZED TROOPS IN THE 20TH CENTURY, IT COULD ALSO BE SAID: ...AND ON THE FUEL IN THE TANKS.

A MYTHICAL SEA MONSTER

Shocking news spread around the British port of Cardiff in summer 1942. Returning from the sea in the morning the crew of a fishing boat said that they had seen a true sea monster – a gigantic black snake. Although the fishermen assured everyone that the snake was dead and that they have seen blood running out of its wounds, colouring the surrounding water, the rumor dominated even the war reports for several days.

The news the people found so frightening aroused quite different emotions in the British military. Because they knew very well that what the fishermen had seen had nothing to do with a sea monster. They had seen what they were never supposed to – an ultra-secret sub-sea pipeline laid under the P.L.U.T.O (Pipe Line Under The Ocean) project. The fishermen had witnessed a maximum throughput test whereby the pipeline was filled with red coloured aviation-grade kerosene. Now is the time to recall the events which preceded the accident.

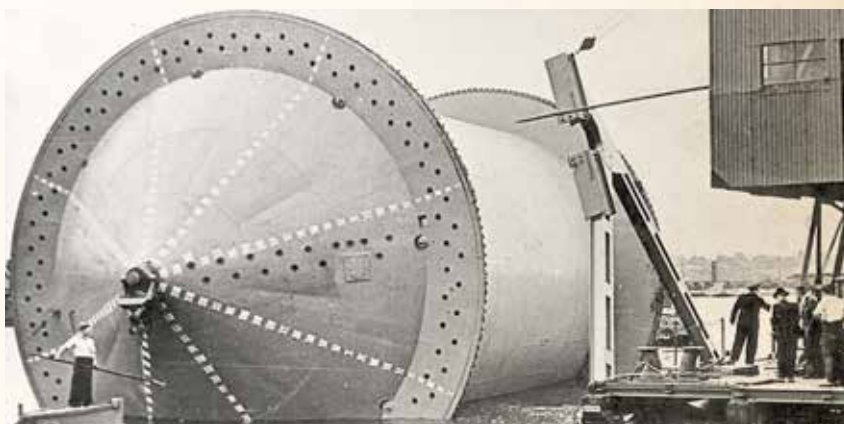
In early 1942, the British Combined Operations Headquarters began making plans for the Normandy Invasion. A raid on the French port city of Dieppe had shown that attempts to seize the well-fortified Normandy ports were doomed to failure. Even if some tank and infantry battalions succeeded in breaking into the port and entering the city they would inevitably be destroyed in street fighting.

At the same time it was found out that landing an assault force on a deserted beach away from the maritime harbors did have a chance of success provided that they were supported by the main forces and adequately provided with ammunition and fuel.

TAKING OFF FROM AN ICEBERG

Developing a plan of invasion, the Combined Operations Headquarters headed by Lord Mountbatten

focused on three major problems. The first and most important was defending it against German aviation. For this purpose, the British devised a host of measures. The idea was even considered to tow huge icebergs from the Arctic to use them as a kind of unsinkable aircraft carriers. The second problem was unloading cargo on a deserted beach without any port infrastructure. That one was resolved by designing makeshift ports of two types. The idea behind Design No. 1 was to put several



Sub-sea pipeline installation using a floating drum



Pipeline system infrastructure on the French coast

semi-submerged vessels together back-to-back to form a breakwater to protect the coastline from waves and wind. Design No. 2 involved structures of reinforced concrete, also semi-submerged and put together butt-to-butt to be used as platforms for installing cargo handling equipment.

But the most difficult problem was the delivery of flammable fuels to the continent.

The Normandy Invasion was planned to involve some 20,000 pieces of different kinds of land military hardware, which could not be left to depend completely on fuel supplies by sea, especially given that gales were a frequent phenomenon in the English Channel. Therefore, Lord Mountbatten took the daring decision to lay a pipeline across "La Manche". A way had to be found of laying the pipeline so that the effort was not detected by the enemy, thus betraying the planned site of invasion.

An inventive solution was proposed by specialists from the Anglo-Persian Oil Company together with researchers from the National Physics Laboratory. The idea behind their proposal was that, since no prolonged effort was possible in the Channel, long pipes should be manufactured in advance and sunk quickly at the right moment. Over a brief period of several weeks the idea was developed into a unique technology of laying a flexible pipeline using the same materials as were used in the construction of under-ocean telegraph cables, but reinforced with several protective shells.

In May and June 1942, pilot samples were tested in the River Medway and in the deepwater mouth of the River Clyde, where the pipes successfully passed a 10.5 MPa pressure test. Luftwaffe pilots took unwitting part in the next

series of tests, which took place in one of the ports in Wales. The bomb they dropped fell beside a vessel from which the pipes were being laid. The vessel was literally blown to one side, but the fuel artery withstood the damage.

A PUMP STATION DISGUISED AS A FOODSTORE

The pipeline project was implemented in strict secrecy. Its code-name was 'cable'. Following these successful tests, the project proceeded to the phase of pipe manufacture. Two factories (a main one and a back-up in case the main one was destroyed) were built for that purpose in Tilbury on the lower reaches of the Thames.

At the same time as the pipe manufacturing, construction of onshore infrastructure proceeded. Around 1,600 km of pipeline were laid from the marine terminals of Bristol and Liverpool to the southern coast of the UK. For the sake of secrecy, all work was performed at night only. The future pump stations were disguised as farms, garages or foodstores, which did not prevent them from being equipped with state-of-the-art technology. The pump stations were furnished with centrifugal and piston pumps, electric motors were equipped with air cooling systems and pumps were separated from actuators by fireproof walls.

The deployment of such sub-sea pipelines was started in August 1944, when fuel demand by the Allied Forces had increased drastically. A 105 km-long six-line pipeline was laid from the Isle of Wight to Cherbourg and 17 pipelines were laid along the 55 km long Dungeness-Boulogne route. The pipeline's descent to the sea floor involved two boats towing a floating drum, while the pipe unwound and went under water.



The machine room of the pumping station



An American soldier inspecting the pipeline

A third towboat followed them, as an emergency measure.

With the new pipelines laid, the amount of transported fuel increased, reaching a maximum of 4,500 m³ per day. Military historians stress that the system of sub-sea pipelines between the UK and France not only allowed for providing Allied Forces on the continent with fuel, but also helped free up a large number of tankers for the Pacific theater of war. ■

by Pavel Kretov

CPC's aviation partners

THE CASPIAN PIPELINE CONSORTIUM BEGAN USING AVIATION SERVICES BACK IN THE 1990S WHEN IT NEEDED TO SURVEY POTENTIAL PIPELINE ROUTES.



HOW IT ALL BEGAN

In 1998, CPC contracted the American aviation brokerage company, Clintondale, which procured Mi-8 helicopters from Russia's Pankh and Kazakh KazAir West, and YAK-40 and Tu-134 aircraft from Russia's RusAir. To be accepted as part

of the CPC project an airline or aircraft has to pass an international aviation audit for compliance with the high standards established for the use of aviation in the world oil and gas industry.

In 2000, as construction entered its active phase, the project came

to need more aviation support. Seeking to satisfy the growing demand for such services CPC organized a major tender, based on which contracts were awarded (both in Russia and in Kazakhstan) to companies affiliated with one of the world's leading provider of helicopter services – the British company Bristow Helicopters.



This Tu-134, once the personal airplane of former GDR leader Erich Honecker, was used by CPC in the late 1990s-early 2000s

Choosing between Russian and foreign aircraft was an issue that provoked heated discussions. Of course, many CPC shareholders were more familiar with foreign models. Nevertheless, the Project's aviation consultants, highly respected and trusted in the oil and gas industry worldwide, reached the conclusion that preference should be given to Russian aircraft and helicopter models, which had demonstrated high operational safety. Other factors that influenced that decision included the lack of experience of using Western aircraft in the former



Alexei Bunarev,
CPC Transportation Manager



Installation of a radio-relay tower
at PS "Kropotkinskaya" (Russia)

Soviet Union, the unavailability of adequate technical support, and a shortage of trained personnel.

Bristow Helicopters brought in airlines from the Republic of Komi as local operators. Komiinteravia (aircraft) and Komiaviatrans (helicopters) are distinguished for their business traditions and the highest level of their training of pilots and engineers, particularly in respect of the difficult climatic conditions of the Far North. These companies, as subcontractors of Komi Bristow Air Service, a JV specially formed to support the project, replaced Pankh at the project's Russian section. The local airline Atyrau Aue Zholy was contracted to perform flights in Kazakhstan.

A Tu-134 aircraft and Mi-8 helicopters were located on a permanent basis in Krasnodar, Astrakhan and Atyrau. The specially equipped

phase of introductory tests. In fact, since they include foreign parts, their cost is comparable with that of foreign helicopters of similar class. Therefore, the question of using Western helicopters and light aircraft is currently on the agenda. But in 2002, no acceptable options could be found that would ensure the uninterrupted delivery of such Western helicopters and aircraft to Russia and Kazakhstan, together with the provision of adequate technical support. Based on the results of the tender held in 2002, direct contracts were awarded to Pankh (Russia) and KazAir West (Kazakhstan), and the time-tested and reliable MI-8 continued to provide aviation services to CPC.

But life moves on. The obsolescence of such old helicopters and the growing demand for aviation services has brought renewal in the Russian and Kazakh helicopter fleets, mostly through the acqui-

With new aviation demands coming with the CPC Expansion Project, annual average flying time increased from 1,070 hours in 2008-2010 to 1,275 hours in 2013

Tu-134 made weekly flights carrying personnel and small cargoes from Krasnodar to Astrakhan and Atyrau from where they were transported on to construction sites by Mi-8 helicopters.

NEW TASKS

The Pipeline launched full-scale operation in 2002. That changed the scope and order of priorities of aviation support services: personnel and cargo transportation became of secondary importance, while the need emerged for regular patrol flights over the pipeline.

New helicopter models being developed in Russia (Ka-226, Mi-34 and Ansat) are currently in the

sition of new Western equipment. Airbus Helicopters (until January 2014 - Eurocopter), Bell Helicopter and Agusta Westland have made considerable investments to obtain certification for their aircraft in the CIS, as well as developing technical support centers. Problems like the lack of adequate technical support, complicated logistics and the high cost of operation are now resolvable.

Demands in flying time have increased for CPC. With new aviation demands coming with the CPC Expansion Project, annual average flying time increased from 1,070 hours in 2008-2010 to 1,275 hours in 2013. Flights relating to the Expansion Project account for 20% of that figure. ➤



Alexei Bunarev testing new aircraft in Germany

MODERN AIRCRAFT

The growing number of CPC operational facilities has led to a considerable increase in per-

Finally, a decision was made together with the aviation contractor to use Eurocopter EC-135T2, but only temporarily, while the old and reliable “friend of oilmen”

Prerequisite to attract airlines and aircraft on the CPC project - passing international aviation audit for compliance with the demanding requirements of the world oil and gas industry to aircraft operations

sonnel and equipment along the pipeline’s route. Therefore, when selecting aircraft, their enhanced flying characteristics and availability of special equipment on board, which are crucial for such tasks as emergency response or medical evacuation, become of particular importance.

MI-8 is undergoing modernizations to be developed into a new domestic helicopter model.

Starting from December 2014, Pankh made a Krasnodar-based Eurocopter EC-135 T2 available for CPC-R flights. In April 2015, another helicopter of the same type,

based at Astrakhan airport, joined the pipeline patrols.

Thanks to its power-to-weight ratio and avionics, the helicopter can perform both patrol and passenger transportation flights with higher degrees of safety. With two engines, the helicopter can maintain positive up-motion gradient even in the mountains with only one engine running. The new helicopters are equipped with warning systems indicating ground approach, or obstacles and other factors, to avoid any chance of pilot error or collision.

Based on the experience of moving over to Western helicopters in Russia, in the future CPC plans to implement a similar strategy in Kazakhstan.

Negotiations are currently under way with Euro-Asia Air, CPC’s aviation service contractor in Kazakhstan, on replacing the Mi-8, currently used in Atyrau, with a modern helicopter with acceptable passenger capacity. At the top of the list of proposed replacements are helicopter models which have proven their performance in other projects, including the AW-139 (Agusta Westland) and AS-365N3 (Airbus Helicopters), which are successfully used by NCPOC in Kazakhstan.

It should be noted that CPC has never stopped consideration of the possibility of using new Russian-made helicopters. There are prospects of using new Russian helicopters – like the Ansat and Ka-226 - lightweight twin-engine gas-turbine models designed by the Kazan Helicopter Factory’s design bureau and Kamov Design Bureau, respectively. However, it will be several years before these new helicopter models pass the necessary trials to prove their safety and competitiveness. ■

*Alexei Bunarev,
CPC Transportation Manager*

CPC and the eco-kids

CPC WAS A PARTNER OF THE FIRST RUSSIAN NATIONAL ECOLOGICAL CHILDREN'S FESTIVAL "ECO-CHILDHOOD"

On June 5, the entrance to the State Kremlin Palace was crowded – children of all ages and the adults accompanying them were trying to shelter from the rain under its canopy. The most impatient ones were clinging to the glass doors. Finally the moment arrived and everyone surged in – the First Russian National Ecological Children's Festival was open.

In the foyer of the Kremlin Palace the young nature lovers participated in master-classes and quizzes about environmental protection, while the attention of the youngest guests was drawn to the stage performance, in which animals pleaded with the audience to preserve their home – the forest – in a song. The actor playing the forest proved the most popular – every child (and even some adults) wanted a photo with him after the performance. The smiling "Forest" kept posing with groups of children – he looked exhausted, but the kids were happy.

The official part was opened by Russia's Deputy Minister of Natural Resources and Ecology Rinat Gizatulin, who congratulated everyone on World Environment Day and expressed the hope that the new festival would become an annual event.



Gathering together young defenders of nature in the Kremlin, the event proved very festive

– I am glad that some years ago my colleagues from the Federal Agency for the oversight and management of natural resources took the initiative to start the All-Russian "Eco-kids" movement, – Gizatulin said. – Unfortunately, during the 1990s ecological education and environmental awareness in our country took a huge step back. We forgot how crucial forests are for the life of people, and how important it is to drink clean water and take care of every living creature. The good news is that in recent years more and more people have started paying particular attention to these issues. I thank you all for the work you are doing in your cities and towns, and hope that together we can change the life of our country for the better!

The speech of the Deputy Minister was welcomed by the special representative for climate issues Alexander Bedritsky, the TV host Oksana Fedorova, and others. One touching moment was when the audience joined in with the oath recited by the young defenders of nature, given by youth ecologists who came from orphanages and boarding schools. At the end of the event the awards ceremony for the laureates of the National Contest for regional environmental protection measures took place, followed by a gala concert featuring stars of the Russian stage. ■

Ekaterina Krapivko



The Festival, with its slogan "Children of Russia for Environmental Protection!", took place in 85 territorial entities of the Russian Federation on June 5-7. The event marked both World Environment Day and Children's Day. It was organized by the Ministry of Natural Resources, the Federal Supervisory Natural Resources Management Service (Rosprirodnadzor), the "Priroda" Foundation for assistance to environmental conservation, with the support of various companies, with the aim of developing environmental awareness and encouraging the younger generation to treat nature with more care. The festival included regional tree-planting events, waste paper collection, and volunteer neighborhood clean-ups.

A tribute to everlasting courage

THE CASPIAN PIPELINE CONSORTIUM SUPPORTS THE VETERANS OF THE GREAT PATRIOTIC WAR.



The 70th anniversary of the Great Victory was celebrated on May 9 both in Russia and abroad. The festive fireworks are over, and the veterans have received their congratulations. Children, grandchildren and great-grandchildren of those war veterans who haven't made it to this festive day, all marched together in the ranks of the "Immortal Regiment". The event made a lasting impression: the young and middle-aged faces of those who are no longer with us passed by, smiling from black-and-white photos. The many faces eclipsed the living participants of the parade, turning into a real regiment...

ON THE EVE OF THE HOLY VICTORY DAY

Every year around May 9 the Caspian Pipeline Consortium honors the veterans who live in the regions of the Company's presence. Unlike in previous years when such celebrations took the form of organized ceremonial events, given the advanced age of the veterans CPC now tries to visit each of them at home. This year as part of the "CPC for Veterans. The 70th Anniversary of the Great Victory" charitable program the Great Patriotic War participants received commemorative gifts, such as engraved wall clocks, bed linen sets and food gift baskets. The cost of the charitable program in the Russian Federation came to 11,7 mln rub. 126 veterans received gifts in the Astrakhan Region, 225 (includ-



Ivan Litovka: "The Germans would bomb even lone soldiers, and there were always enemy reconnaissance planes in the air ... That battle was particularly furious, one could hardly see the sun, and the din was constant. You couldn't work out who was fighting whom ..."

ing 136 homefront workers and widows of veterans) in the Republic of Kalmykia, 377 in Stavropol Krai, and 850 in Krasnodar Krai. The figures were different last year, but unfortunately, with the passing of time, fewer and fewer veterans remain.

While implementing the charity event, staff from the Department for Communications with the RF Government not only had the chance to pay their compliments to the veterans, but also to listen

to their priceless memories about what they had had to go through during those difficult years. Veterans say there is no place for fear in war – or rather, during fighting ("You are only nervous when you enter the fight, after that you just do what you have to..."). We admire the veterans' attitude, optimism and zest for life – something that even some young people in excellent health could envy. To think that the "youngest" of the battle-front veterans are now more than 90 years old.

– The annual “CPC for Veterans” campaign in the regions where we work has a special significance for us, – says Leonid Bokhanovskiy, Deputy General Director in charge of relations with the government of the Russian Federation. – Many will agree with me when I say it is of more value to us than to the veterans themselves. This is because it gives us the opportunity to communicate with those who participated in these events and thank them for the unprecedented discipline and courage that they displayed at such a young age at such a hard time. Every year there are fewer and fewer battle-front veterans, and when you realize that, such meetings become even more precious.

The CPC charitable program included a series of broadcasts “Witness of the Epoch” for Novorossiysk television, with the participation of the Novorossiysk film studio, which informed local people about the wartime stories of their famous compatriots.

THEY ARE STILL ON DUTY

On the eve of Victory Day a Great Patriotic War Memory Alley in the city of Kulsary, in the Zhylyoisky district of Kazakhstan was opened with due ceremony, with the financial support of CPC-K.

This year, for the celebration of the 70th Anniversary of the Great Victory, the veterans in Kazakhstan were honored in a different way from usual. In the past CPC-K used to present veterans with food coupons that they or their families could use to purchase what they needed, but this year the decision was taken together with the Atyrau Regional Department of Defense to hold a big celebration at an Atyrau restaurant. The event proved to be very emotional

Alexander Moskalets: “I recall the events of 1943. When the Blue Line was broken and we passed Krymskaya village, we started singing “Katyusha”. It came naturally, as we were so happy! .. We were ordered to move to the head of the column, and we kept on singing there.”



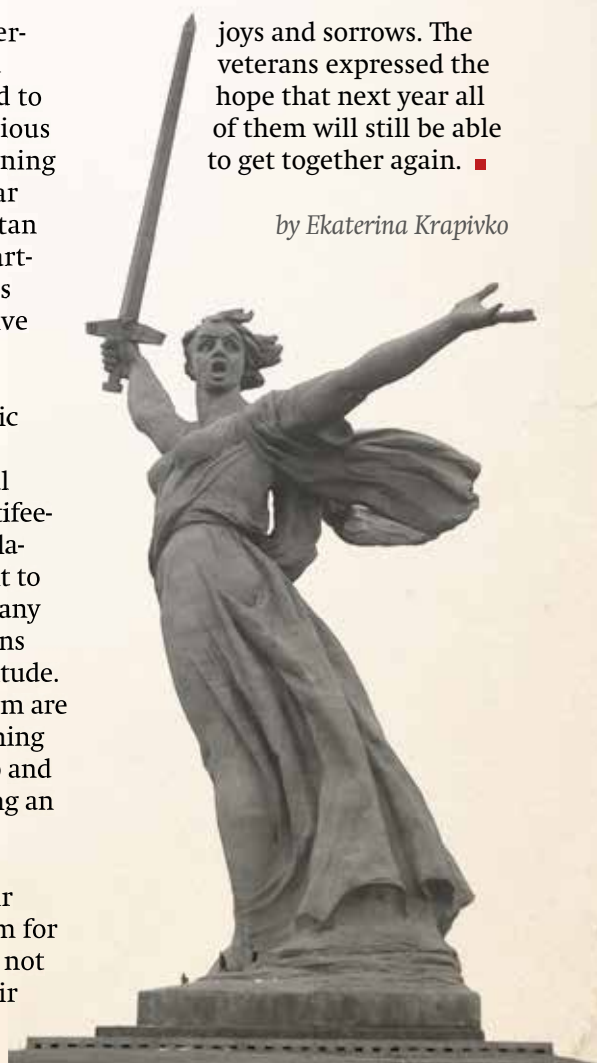
and heart-warming: the veterans shared stories, accepted congratulations and listened to war songs performed by various bands. At the end of the evening Lyubov Yevstifeeva and Askar Shmanov from the Kazakhstan Government Relations Department presented the veterans with flowers, commemorative gifts and food gift baskets.

– Victory in the Great Patriotic War was achieved at the cost of many human lives and real hardship, – says Lyubov Yevstifeeva, the chief CPC-K Public Relations specialist. – It is difficult to measure the contribution of any one individual, but all veterans deserve our respect and gratitude. We are glad that many of them are still active, still doing something to promote peace, friendship and harmony in society and taking an active part in public life.

The heroes of the day in their turn thanked the Consortium for their gifts and attention, for not leaving them alone with their troubles, and for a readiness to share both their

joys and sorrows. The veterans expressed the hope that next year all of them will still be able to get together again. ■

by Ekaterina Krapivko



Following a dream

IN HIS DETERMINATION TO GROW UP STRONG AND HEALTHY 11-YEAR-OLD ARTUR HAS THE FULL SUPPORT OF HIS PARENTS AND ELDER BROTHER.

The boy has a serious goal: he's decided to devote his life to sport at the army sport club, CSKA. How did this dream come about?

– Two years ago our family watched the movie “Legend No. 17”, – says Artur's mother Inessa Naidenova, Secretary-clerk of Operations Maintenance, ER. – My son was inspired by Kharlamov's determination and insistence, and he literally got obsessed with hockey. All together we got him a hockey kit, though Artur could hardly skate. Nobody laughed at the newcomer at the sports club, but Alexey, son of my colleague Anatoly Abakumov, offered Artur some extra help. Alexey has been into hockey for five years, ever since the Atyrau Ice Palace opened.

The boys are coached by Sergey Ogorodnikov and Evgeny Antonov, who used to play for the Atyrau hockey team “Beybarys”. The coaches have noticed Artur's discipline and diligence. Now the boy feels comfortable on ice. He's made lots of new friends through sport.

As the famous song goes, “it's the tough guys who play hockey”. Pursuing his dream, Artur displays the qualities of a real man – he never gives up. Today it's hard to believe that he used to be a frail and delicate child. He started talking when he was almost five, which is quite late, and that became the reason for his self-restraint and insecurity. But his parents never gave up, and neither



The friendship between Artur and Alexey is tried-and-tested!

did Artur. A healthy athletic family lifestyle did the trick.

Movement is life indeed, and it worked a miracle.

When Artur was in first grade, he did karate and even got a yellow belt. But after a year the group got a new sensei and the boy dropped



EXPANSION PROJECT DOCUMENT CONTROL COORDINATOR ELENA EVDOKIMOVA AND HER HUSBAND YURI MIKHAYLUK ARE AGAINST POSTING PICTURES OF THEIR CHILDREN ON SOCIAL NETWORKS TO COLLECT “LIKES”. THE COUPLE THINK THAT ONLY PARENTS CAN TAKE A GENUINE INTEREST IN THEIR CHILDREN.

“They're so unlike each other”

But fate had it a different way: at the age of six the couple's eldest son Gleb became the poster-boy for a children's clothes shop, while twin Nina, who's about to turn three, has already appeared as a model for a popular web portal. My colleague Alexander Barkov brought me a photo of a little girl, her eyes wide open, that took my breath away. It was he who persuaded Elena to share it with the magazine and tell us about her children.

– One of our friends, the chief editor of a web portal, complained that she had to take pictures for numerous family education articles from an image bank and asked for a photo shoot with our Nina. Another friend opened her own store and thought that Gleb was ideal for modelling stylish boys' clothes. That was how our children got their modelling experience, – said Elena.

Nina is a natural in front of the camera. The girl can pose for hours, surprising everybody with her grown-up patience and serious approach. With Gleb one has to strike the right note, but it's exactly such cheeky scamps that the designers of boys' clothes are looking for!

his classes. And here he is now, a successful player on the junior “Beybarys” team who has already taken part in an away match. In early May, to mark Victory Day, the Atyrau Ice Palace staged a junior tournament for teams from the cities of Western Kazakhstan. Artur’s team “Beybarys-2” came third, taking the bronze. That was Artur’s first medal! We’re sure that there will be many more interesting sports events and victories ahead.

A strong person, like young Artur, should also be a kind one. The best way to cultivate this quality is through actions, not words. Artur looks after two pedigree dogs and a cat called Mikhalych.

– With these pets at home, it means more chores for our son: he has to feed and walk all them, and wash their paws afterwards, and clean up any mess they might make before mum sees it, – smiles Inessa. – And these four-footed family members are completely devoted to Artur.



| Artur, his elder brother Evgeny and his parents Inessa and Tamerlan, with their pets

The boy also has much to do outside – in winter he shovels the snow, and in spring and summer helps his father in the garden ... And Artur likes machinery very much, too. He already knows how to park a car properly, and can easily handle a jet ski in summer.

What else can be said about our hero? Artur stands up for truth and justice. He would never offend a girl and is always there to protect the weak – he’s a real man. ■

by Ekaterina Suvorova



| Gleb and Nina, as our photographer Natalia Ivanova saw them

– Would you like to see your children make a career in modelling? – I asked Elena.

– The modelling catwalk isn’t a profession! – she’s convinced. – My husband and I think that everyone should have something real but interesting to do in their life. Our aim is to give the children a good education and help them discover their talents.

Despite their tight schedules, Elena and Yuri pay a lot of attention to their children. The parents take much joy in watching their children succeed in understanding the world.

– Our children are very close, – says Elena. – Gleb is a thoughtful big brother for our twins Nina and Stas.

Stas is the leader in their pair, with Nina following him in every way. She was the first to learn to talk but refused to say sounds her brother hadn’t mastered yet – as a matter of principal. The toddlers share tasty treats and play with each other, so it took them a little while to adapt to the group when it was time for kindergarten.

Elena is very surprised by the fact that, though they’ve been raised in the same environment, the children turned out to be so different – it’s like they’re from different planets. Everybody comes into this world with a different personality, and such individuality is encouraged and supported in the family. ■

by Ekaterina Suvorova

A celebration of love and respect

DESPITE THE REALITIES AND PACE OF MODERN LIFE, KAZAKH MARRIAGE RITUALS ARE STILL OBSERVED IN A TRADITIONAL WAY. MANY OF THE PRE-WEDDING RITUALS MAY NOW BE FORGOTTEN, BUT THE MOST SIGNIFICANT AND BEAUTIFUL ONES REMAIN, TO BE PASSED TO THE NEXT GENERATION.



“Кұда трысу” (marriage proposal) is one such ritual. Of course, young people choose their partners freely, go on dates, and plan their futures together. But before the wedding takes place, the close relatives of the groom accompany his parents to the bride’s parents’ home, even if that means going to another city. Before that visit they prepare special presents and put them in a “қоржын”, a bag consisting of two large pouches of the same size: they used to be saddle-bags. Today a қоржын can be bought in any souvenir shop or market: it can be decorated with pieces of jewelry that the receiving party will take as symbolic mementos of the party.

At the bride’s parents’ house the parents of the groom put earrings into the bride’s ears, and from that moment on she is supposed to wear them as a symbol of her betrothal. The ceremony is called the “сырға салу” – the putting-on of earrings.

Special significance is given to the present offered to the bride’s mother as a token of gratitude for her having given birth, nursed and raised the daughter who is about to bring the two families together. With this gift, the emphasis is on the role of the woman who has given her all to her child while

Daughters are raised to be married. As the Kazakhs say, “A daughter is only a guest at her parents’ house”

breastfeeding – we have a good reason to say that a child takes in language, culture and mentality with his mother’s milk!

Kazakhs treat “құда” (the couple’s parents) with great respect. The құда always take the seats of honor at the table. One of the rituals symbolizes the good relations between the parents of the bride and groom.

It involves making “цуйрыц-бауыр” - a special dish of sheep tail and liver. The couple’s parents treat each other to it, saying: “From now on we will be as gentle to each other as the tail fat and as close as liver”. It is essential to understand how these terms reflect Kazakh ethnic culture: the word “бауыр” (liver) has a symbolic meaning of connection and closeness, and is used to mark close family relationships. After this ritual the parents of the bride and groom can call each other “құда”. The main wish they make is: “Қудалығымыз мың жылдың болсын” (“let our family relationships go on for a thousand years”). From that moment on the couple’s parents hold each other in high esteem, while the young couple treat their parents with respect, and the bride soon joins her new family.

The date of the wedding is set during the proposal ceremony.

Prior to the wedding a ceremony of “цыз узаты” (bride send-off) is

held in the bride's house. The girl's close relatives and female friends gather at her parents' home to help her dress.

The groom comes to fetch his bride, accompanied by his friends and family. The bride's parents send their daughter away, give their blessings to the couple, and serve them a sour-milk drink that symbolises their bright path into the future. In the evening everyone follows contemporary traditions and gathers at a restaurant where the newly-weds take the main table. This is the time when the groom's family is treated with special respect, and the high point is the actual moment when the bride bids farewell to her parents, relatives and friends. In ancient times girls were often married without their consent. Leaving her home, the girl would cry over leaving her careless young years, parents and friends behind. This song-lament is called "сыңсу". A simplified version of this deeply affecting ritual is still followed today during the bride's send-off.

The CPC Eastern Region team has had many opportunities to witness such beautiful rituals while attending weddings of staff members and their children. One such memorable moment was the send-off of the bride Saltanat Saparova, CPC Eastern Region environmental engineer (**photo 1**). **Photo 2** is taken at the bridal send-off for the brother of Asel' Doszhanova, CPC-K Executive Director receptionist. Last autumn Adilkhan, the son of our leading personnel affairs specialist Gulzady Kapakova, brought home his young wife Aynur. Aynur's wedding dress featured a folk costume element – a waistcoat (**photo 3**). During the send-off the brides have their hair uncovered, but at the wedding arranged by the groom's family the bride usually wears a veil. Modern bridal dress can sometimes include "саукеле" – a traditional wedding headpiece.

One of the essential and most beautiful parts of the wedding is "беташар" – the face-opening ceremony. The wives of the groom's elder brothers bring the bride into the room in which all the guests are waiting. The bride has some light white cloth covering her veil so that nobody can see her face. The face-opening ceremony is intended to be the moment of the bride's acquaintance with the groom's extended family. One of the guests sings a special song and accompanies it on the dombra. The singer improvises, and introduces first the groom's older relatives, parents, siblings, and then all the other guests to the bride. The bride responds with a bow, greeting her new family, relatives, friends and colleagues. After the greeting the bride's face is uncovered, and we believe that whoever performs that gesture will be held in special respect by the bride. At the wedding of my son Timur it was I who uncovered the face of my



daughter-in-law Gul'nur and gave her the first kiss (**photo 4**).

In our traditions, the wedding celebration is organized by the parents. Daughters are raised to be married. As the Kazakhs say, "A daughter is only a guest at her parents' house"; sons are raised to give them a lavish wedding and have the time of our lives! ■

*by Marzhan Diarova,
CPC-K Senior translator, Atyrau office*

Amazing Mexico

OUR TRIP TO MEXICO WAS FULL OF VIVID AND REMARKABLE IMPRESSIONS. THE DISTINCTIVE LOCAL COLOR, INSIGHTS INTO MAYA CULTURE WITH ITS ANCIENT PYRAMIDS, INSCRUTABLE WRITING SYSTEM AND MEMORIES OF THIS VANISHED CIVILIZATION - ALL OF THESE CONTRIBUTED TO A SENSE OF MYSTERY.

The Kukulcan Pyramid (named after one of the Maya gods, "the feathered serpent") is extraordinary. It is located at Chichen Itza, the ancient Maya capital founded in the 8th century. The fact that these ancient builders managed to create such even and clearly aligned pyramids without any specialised instruments is remarkable. If, during construction, they had made an error, even by one degree in any direction, it would have been impossible to witness a miracle on the days of the spring or fall equinox. Light and shadow create the silhouette of the Sacred Serpent Kukulcan on the pyramid staircase. The Serpent moves with the sun in the sky, growing bigger. The illusion of the Serpent slowly sliding down can be observed twice a year, and lasts for three hours 22 minutes. It gives the observer the impression that

the Sacred Kukulcan is coming down to earth from the heavens. This magical effect is evidence of the fact that the ancient Maya were advanced in geodesy and astronomy. Each of the four temple staircases has 91 steps, making up 364 in all, and if we add the pyramid peak that joins all four staircases together, we get 365 - the number of days in the solar calendar!

Not far from Chichen Itza we were lucky to see a cenote, a large karst funnel about 50 m in diameter with a cool fresh-water lake at the bottom. Over

several hundred years the well has become covered with tree roots and lianas right down to the water surface. Cenotes served as specific storage tanks for rain water, and the Maya Indians believed them to be gates to the underworld. To win over the rain-god Chaac they made blood sacrifices here and dropped them into the cenotes, followed by gold and jewelry.

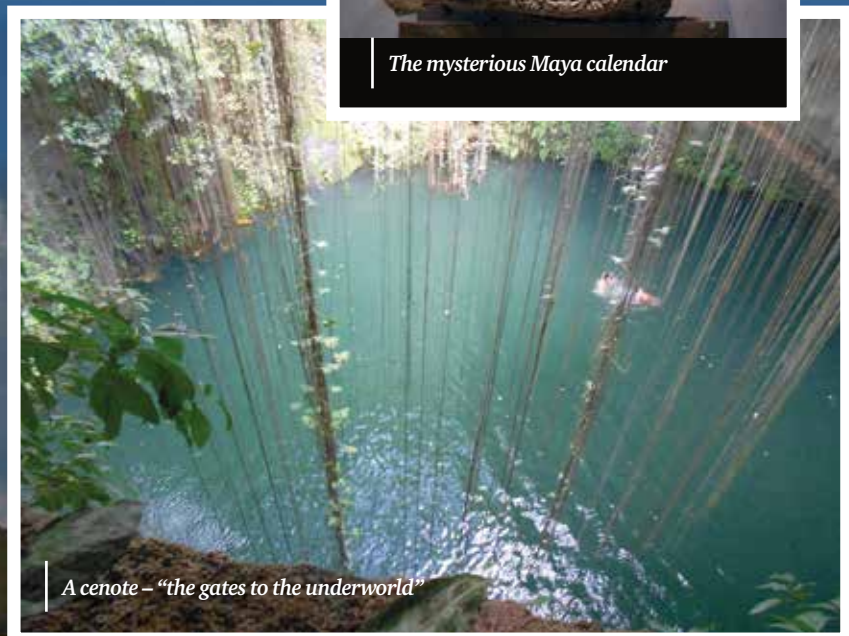
The visit to Xcaret park (meaning "small inlet" in Mayan) is not to be forgotten. It isn't just a park, but shows Mexico's history both before and after the Spanish invasion. There are gorgeous butterflies, giant turtles, skate fish, pumas and leopards, graceful flamingos and funny macaws.

The ancient traditions came to life right before our eyes. We watched the ritual ball game in which you have to get a heavy rubber ball into your opponent's stone ring – it's something between soccer and basketball).

This is the Maya blood game in which the captain of the winning team was executed, and if it was a drought year the whole team shared his fate, since the game also served as a ritual to bring on rain and encourage good harvests. We were thrilled by the story of this horrible sacrificial tradition.



The mysterious Maya calendar

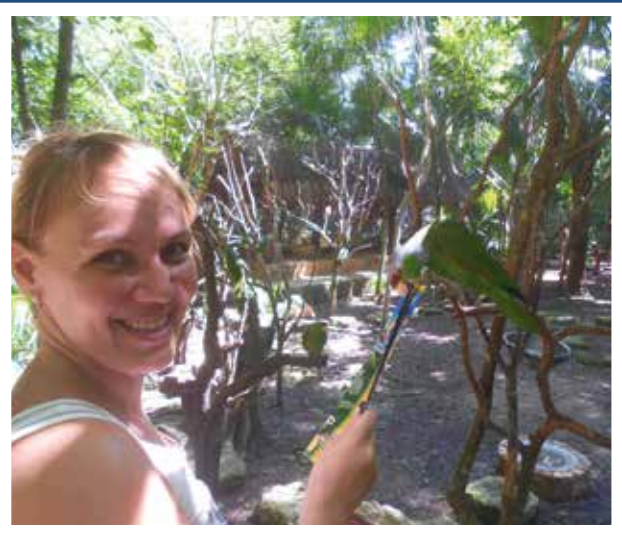


A cenote – "the gates to the underworld"





The giant turtles of Xcaret park are not afraid of people



Julia Voroshilova and a chatty Mexican parrot

We had a chance to sail down the Underground river (the karst waters washed away branched passages below ground). There are no words to describe these impressions. The setting is fantastic - it's not every day that you get to sail underground, a bit concerned that any moment the ceiling may crash down on you. The place is sacred - the Maya Indians used to hold their religious cer-

emonies here, their priests sailed the river in their boats, and the shamans who could conjure up evil spirits lived in dry caves on its banks.

We felt very proud when the guide told us about the great Soviet scholar Yuri Knorozov who managed to decode the Mayan writing system. For centuries it had been considered impossible to understand, and he managed it without even visiting Mexico - he wasn't allowed to travel abroad. He had always dreamed of seeing the Maya pyramids and touching the culture that he had dedicated his whole life to. But it wasn't until the age of 70 that he was able to

visit the site, at the invitation of the Mexican government. It was impossible not to shed a tear when you imagined what this man must have felt, and how happy he must have been standing there, at the very spot where I'm standing now!

The mysterious Maya calendar, which promised "the end of the world" on December 21 of the year 2012 deserves particular attention. I side with the scientists who see the date of December 21, 2012 as the end of the Forth Sun era and the beginning of the Fifth Sun era, and not the apocalypse. One cycle of motion of the solar system has ended, and another one is beginning. That's why we turned over this page of the calendar with no regret, to start a new life, full of vivid travel memories and new plans for the future! ■

Julia Voroshilova,
Lead Water Supply and
Sewerage Engineer,
Expansion Project

"First impressions are the most lasting..."

AS THE SAYING GOES, "FIRST IMPRESSIONS ARE THE MOST LASTING". NO DOUBT, WHAT WE WEAR IS LESS IMPORTANT THAN OUR TALENTS AND ABILITIES. NEVERTHELESS, EVERY PERSON JOINING CPC IS INTRODUCED TO THE COMPANY DRESS-CODE. AS TIME GOES BY, IN THE WELCOMING ATMOSPHERE OF THE GREAT TEAM, WE START TO FEEL LIKE WE'RE AT HOME... BUT SHOULD YOU RELAX AND FORGET ABOUT THE DRESS-CODE? WE ASKED OUR COLLEAGUES FROM THE MOSCOW OFFICE ABOUT THIS.

A MATTER OF HABIT

No matter what we feel about it, I still believe that a dress-code is necessary. It's one of the elements of corporate culture. I'm convinced that it contributes to forming the Company image and helps create the working environment in the office. In addition, such equal terms for everyone help to form the team and bring it together, making it easier for newcomers to blend in. Our partners definitely take the formal appearance of our staff as a sign of the Company's prestige, which is important for concluding contracts.

I don't think the CPC dress-code is that strict. As far as I know, there are no rigid requirements in terms of shoe, tie or suit color. But there are rules prescribing the use of a particular type of fabric, its density and quality, not to mention the color and style of the clothes itself.

It has so happened in my career that I

have always worked for companies with dress-codes, even if it wasn't always called that. Perhaps that's why I feel comfortable wearing a suit and tie, and it seems natural. But still, every Friday I am almost always happy with the opportunity to dress casual. It's great in every way!

*Viktor Kosolapov,
Governmental Authorities
Relations Manager*



MAKING OUR CLOTHES WORK FOR US

In my opinion, a dress-code is directly related to the Company image. For example, when you think of someone working in the field of banking and consulting, you imagine a person wearing a suit and shirt of a particular color. You can picture his shoes and neat hairstyle. Every sphere of work has such standards. In addition, the larger and better known a company is, the more likely it is to have a dress-code.

I like the way a friend of mine described it:

"You shouldn't work for your clothes, you should make your clothes work for you." In other words, there is a non-verbal piece of information that we communicate through our clothes. If you need to make a particular impression in negotiations, it makes sense to dress properly and not waste time on self-presentation. Clothes can help us with that, while we focus on the subject of the meeting.

I've always worked for companies with dress-codes, so it's easy for me to follow one.

Besides, the CPC dress-code isn't a strict one - there are no preferences for style or colour. I know that in many companies there are

male business dress-codes, which could be arranged in a “strictness scale”.

External circumstances can influence a person’s inner disposition, and vice versa. I think my colleagues will agree that you feel different in a formal suit from when you’re wearing jeans and a cardigan. But there should be an individual approach and balance in everything. I believe that the dress-code for some CPC offices in hotter climatic regions should definitely be different from the one in Moscow.

*Olga Goryushkina,
Senior Training Specialist*

MY CHOICE IS FOR THE CLASSIC

Our appearance is commonly assumed to be our “business card”. I share that opinion and try to dress appropriately at all times. There is no doubt that your dress should fit the occasion. Following this approach, I opt for the classics when choosing my everyday working clothes. According to unspoken corporate tradition, on the last day of the working week you can be a little more creative - for example, wear jeans. I always take that



ture, self-contained people. It isn’t necessary to regiment how people dress with a strict code, I believe. Perhaps, when hiring people, the HR specialists can tell them about the Company approach and its traditions in terms of working appearance. Senior colleagues can always talk to “violators” and

Our partners form their opinion about us both from our professional qualities and from our appearance

even recommendations about the type of jewelry which is, or isn’t, acceptable to wear.

I think a sense of style can help you express yourself, but knowing what the dress-code is gives you the basis for displaying individuality though business clothes. A few years ago I attended a presentation by an image consultant who works with representatives of large corporations during top-level negotiations. I was impressed with the variety of both male and fe-

opportunity. I am always pleased to notice some personal touches in my colleagues’ looks – like a girl wearing a crown-headband or a man in a bow-tie or hat. I pay attention to my team-mates’ new fashion choices and feel happy for them. I believe CPC staff are ma-

delicately hint that they have gone a little too far. Remember what Sophia Loren used to say: “Clothes are the easiest way to express your personality.”

*Nadezhda Cherednikova,
Protocol Team Specialist*





FIRST AND FOREMOST

Business style in dress creates a positive working environment and contributes to the proper image of the Company in the eyes of its business partners and contacts. Clearly observing such corporate rules and procedures is necessary for all CPC employees, since our partners form their opinion about us both from our professional qualities

and from our appearance. It's well known that people reach their first impression about those they encounter through their appearance. And such first impressions can often be the most lasting ones, influencing later communication and cooperation.

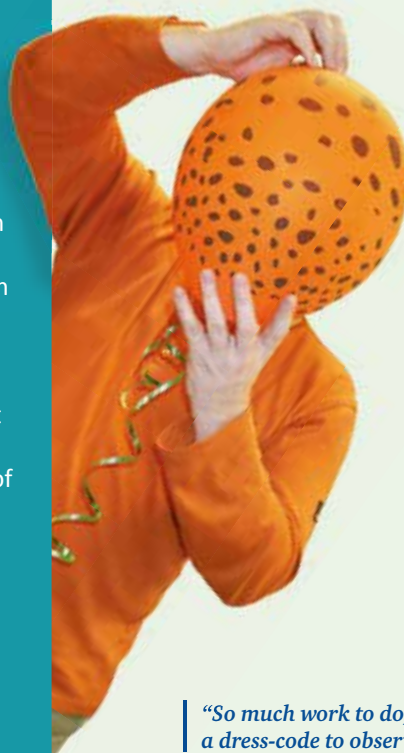
Yuri Tchuyan,
former Senior Procurement Specialist,
Business and Controls Group*

Editorial note:

* A while ago Yuri went to work for a foreign company where he will take part in a project similar to CPC. "For 4.5 years at the Caspian Pipeline Consortium I have gained priceless experience that I hope to successfully implement at my new workplace," - he said when he left. Good luck, Yuri!... ■

BY THE WAY

The term "dress-code" first appeared in the last century in the UK. Following rules relating to dress emphasizes the person's belonging to a particular professional group. Proper staff appearance illustrates the success of the company and shows respect to its partners and clients. It's no secret that the phenomenon of the dress-code appeared in human society long before the term itself. From the very earliest times clothes have revealed an individual's status, occupation and level of prosperity. In primitive societies, for example, a strong and skilled hunter would wear a leopard skin, while his "lower status" colleague would have to content himself with some old garment left over at the back of the cave. Such clothing rules for people from various layers of society and different professions were also found in the ancient world. In Ancient Greece the clothing of slaves and free people differed considerably, while the dress of the slaves depended on their occupation: farming, cattle breeding, or housework, etc. In Ancient Rome the Emperor Octavian Augustus introduced a dress-code for those who came to his forums: they had to wear the Roman toga. In ancient China the colour yellow was strictly reserved for members of the Imperial family.



*"So much work to do, and
a dress-code to observe!..."*

Creating beauty

GALINA MASLOVA, A TECHNICIAN AT PS "TENGIZ" TESTING LABORATORY, IS KEEN ON HANDICRAFTS AND CREATES PAINTINGS IN HER SPARE TIME.

Galina's creative tool-kit is a whole colorful range of mouline threads, beads and satin ribbons. A while ago she decided to master a new enchanting technique and started inlaying pictures with shining rhinestones.

– It all started five years ago, when my mother's sister decided to restore a piece of embroidery she had stitched when she was young. It was a portrait of Pushkin, – Galina says. – It was the first time I had tried cross-stitch and I created my own Pushkin portrait following the example of my aunt's work... Later I began buying ready-made cross-stitch sets that I

found very convenient to work with: they already have everything you need, like cloth, threads, patterns and even needles.

When you take a closer look at the ready embroidery patterns, you can't help but think what a delicate and fine work it is!..

– It's not at all difficult, if you have the will, – the crafts-lady insists. – I was shown the technique once, and I got it right away! You only need patience and the wish to create Beauty.

Galina said that she doesn't use embroidery as a means to calm her nerves. She simply enjoys the work itself as it gives her so many positive emotions, especially when the picture is completed. At first Galina cross-stitched some small patterns, but then she felt like something bigger and more serious. It took her a year to complete the "Morning Walk" picture, and another 18 months for the "Horsewoman". When the completed canvases were framed, both Galina's family and friends were stunned, as she was herself.

– The more complex the picture is, the grander it looks! It has many small details and nuances to it, but the result is absolutely worth it! Each work for me is like a revelation of something new, with great excitement and a desire to see the result as soon as possible, – she confessed.

Works by Galina Maslova grace the homes of those who are close to her. When she makes a present to her mother, daughter or a friend, she can see their eyes light up and shares their delight.



Galina Maslova at her favorite hobby

– I need nothing more, to be honest! It gives me such pleasure! Right now I am embroidering a picture for my friend's new home, and then I will start another one for myself.

In fact, in Galina's house you will only find two pictures from among the 20 that she has made.

Galina has involved many of her friends in her hobby: "The girls see how beautiful it is, and then send me pictures of their own works!" ■

by Ekaterina Suvorova



Caspian Pipeline Consortium: a time-tested international project



CPC-R, MOSCOW OFFICE

Business Complex "Legion",
4th floor, B. Ordynka Str., 40, building 4,
Moscow, 119017, Russia
tel: +7 (495) 745-87-70
fax: +7 (495) 745-87-72
e-mail: Moscow.reception@cpcpipe.ru

CPC-K, ASTANA

Hotel "Beijing Palace",
Level 11, Esil district,
Syganak Str., 27,
Astana, 010000, Kazakhstan
tel: (7172) 799-271
fax: (7172) 799-272
e-mail: Astana.reception@cpcpipe.ru

CPC-K, EAST REGION

Business center "Seven Stars",
Satpaeva Str., 34A,
Atyrau,
060011, Kazakhstan
tel: (7122) 76-15-00, 76-15-35, 76-15-99
fax: (7122) 76-15-91
e-mail: Atyrau.reception@cpcpipe.ru

CPC-R, CENTRAL REGION

Kirova/Krasnogo znameniy Str., 24A/10,
Astrakhan,
414000, Russia
tel: +7 (8512) 31-14-00, 31-14-99
fax: +7 (8512) 31-14-91
e-mail: Astrakhan.reception@cpcpipe.ru

CPC-R, REPUBLIC OF KALMYKIYA

Suite 608, V.I. Lenina Str., 255A,
Elista, 358000, Russia
Tel: +7(84722) 4-13-89
e-mail: Elista.reception@cpcpipe.ru

CPC-R, WEST REGION

Budennogo Str., 117/2,
Krasnodar,
350000, Russia
tel: +7 (861) 216-60-00
fax: +7 (861) 210-35-51
e-mail: Krasnodar.Reception@cpcpipe.ru

CPC-R MARINE TERMINAL

Marine Terminal, Primorskiy okrug,
Novorossiysk, 353900, Russia
tel: +7 (8617) 64-25-52
fax: +7 (8617) 64-25-51
e-mail: MarineTerminal.reception@cpcpipe.ru

CPC-R, NOVOROSIYSK

Vidova Str., 1A, Novorossiysk,
Krasnodar Krai,
353900, Russia
tel: +7 (8617) 61-15-64
fax: +7 (8617) 61-26-90
e-mail: Novorossiysk.reception@cpcpipe.ru

CPC-R, STAVROPOL TERRITORY

Suite 208, Ryleeva Str., 7,
Stavropol, 355000, Russia
e-mail: Moscow.reception@cpcpipe.ru



Comprehensive practical drills of CPC-R with Stavropol Krai Emercom Service took place in June. A mock oil spill was cleaned up near mainline's intersection with River Rasshevatka