MARCH 2018

SOCAR Polymer Newsletter / Issue 3 / 2018

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520
Employees

14,573,652
Man-hours LTI Free

99.2%
PP Total progress in March

92.6%
HDPE Total progress in March

SOCAR POLYMER

What works in the real world best is cooperation

Dear colleagues,

As many of you might know, the Cryogenmash team visited the Polymer construction site, trailing a pool of Russian journalists, whose lavish coverage a week after the site visit reached out beyond the borders of our country. For Cryogenmash, the SOCAR Polymer project is a breakthrough innovation, as the vertical nitrogen tanks – our site's landmark – were uniquely designed and built to custom tailor the Polymer project's needs. The nitrogen tanks are normally horizontally laid, taking up more land, thus adding to the acreage service costs. The vertical placement respected our budget constraints. Thank you, Cryogenmash, for that.

To describe a SOCAR Polymer project, one might as well need a thesaurus, for a string of adverbs and word combinations, most of which are bound to start with "first". One defining phrase would be "multinational teamwork", where both words are key, and cooperation with Cryogenmash is a good example to that.

Over nearly five years, we have engaged experts from 16 countries, to seek technology, expertise, legal advice, investment and innovation, heads and hands. Some of them we still consult on a regular basis via video conference calls, with the others we work side by side, day by day, in the office and the construction sites. We've been learning lessons on rather bumpy roads, yet, driven by the same goals.

We also sent our own local specialists to Italy, France, USA, China, Singapore, the Netherlands, Turkey, Russia, Uzbekistan and many other countries to upgrade their professional qualifications, as much as to learn other people, languages and cultures. To date, there has been over 28,000 man-hours of trainings, and over 500 of Azerbaijani specialists brought their unique skills back to serve their country.

We have not been working together, we did more - we have been standing by each other for five years. Let's keep this synergy alive, for cooperation proves the quality of leadership!

Farid Jafarov

March 2018

Site Photos

PROGRESS ON SITE DURING MARCH

HDPE plant

February 2018	Progress over March 2018	March 2018
	HDPE: Blending Silos. Instrument cabling and Air manifolds installation to continue. Supports and Pneumatic pipe erection in progress	
	HDPE: Organoleptic Structure and Effluent Treatment. SS erection and cable tray installation ongoing. Erection of cooling water lines started	

February 2018	Progress over March 2018	March 2018

HDPE: Extrusion Structure.
RCC works completed. SS and piping erection in progress. Junction box and sandwich panel installation in progress

HDPE: Polymerization.
Equipment erected. Piping & Support erection ongoing. SS, junction box, lighting, etc. installation in progress

HDPE: Electrical Substation.
Rack room HVAC panels' cable connection, and instrumentation panels' cabling ongoing

February 2018	Progress over March 2018	March 2018

HDPE: Polymeri-zation Pipe Rack. Pipe support installation ongoing. Cable tray installa-tion ongoing. Ca-ble pulling in pro-gress

HDPE: Reactor Dump tank. Electrical works in progress

HDPE: Catalyst Activation.
SS erection in progress

February 2018	Progress over March 2018	March 2018

HDPE: Bagging & Packing.
SS and cladding erection in progress.
Equipment installation ongoing

HDPE: Low Pressure Solvent Recovery.
Instrument installation and cabling completed

PP plant and U&O area

February 2018	Progress over March 2018	March 2018
	PP/U&O: Electrical substation. Complete energization activity in progress	
	PP/U&O: Common Control Room. Pre-commissioning activities in progress	
	PP/U&O: Chemical & Additives Storage Building. Most roof sheeting works completed	
	PP/U&O: Laboratory. Most finishing works are completed	

February 2018	Progress over March 2018	March 2018
	PP/U&O: Administration building. Most finishing works completed	
	PP/U&O: Workshop. Most finishing works completed	
	PP/U&O: Bagging & Packing Building. Wall and roof sheeting installation in progress	
	PP/U&O: Fire water Retention Basins and Pump House. Pre-commissioning in progress	

February 2018	Progress over March 2018	March 2018
	PP/U&O: Air/ HP Nitrogen Condensate Compressor Station's Storage & Pumping facilities. Pre-commissioning in progress	
	PP/U&O: Cooling Tower. Pre-commissioning activities in progress	
	PP/U&O: Flare Stack. Pre-commissioning activities in progress	
	PP/U&O: Valve house. Finishing works completed	

February 2018	Progress over March 2018	March 2018
	PP/U&O: Gate/ Guard House. Repair works in progress	
	PP/U&O: PP-Wet section / Polymerization. Equipment testing in progress. Installation of electrical instrumentation ongoing. Piping test in progress. Branch cable tray installation in progress	
	PP/U&O: PP Dry Section / Extrusion building. Most piping tests completed. Lighting System installed and powered up. Lift erection in progress	

PP/U&O: PP Dry section / Powder Silos.
Pre-commissioning activities in progress

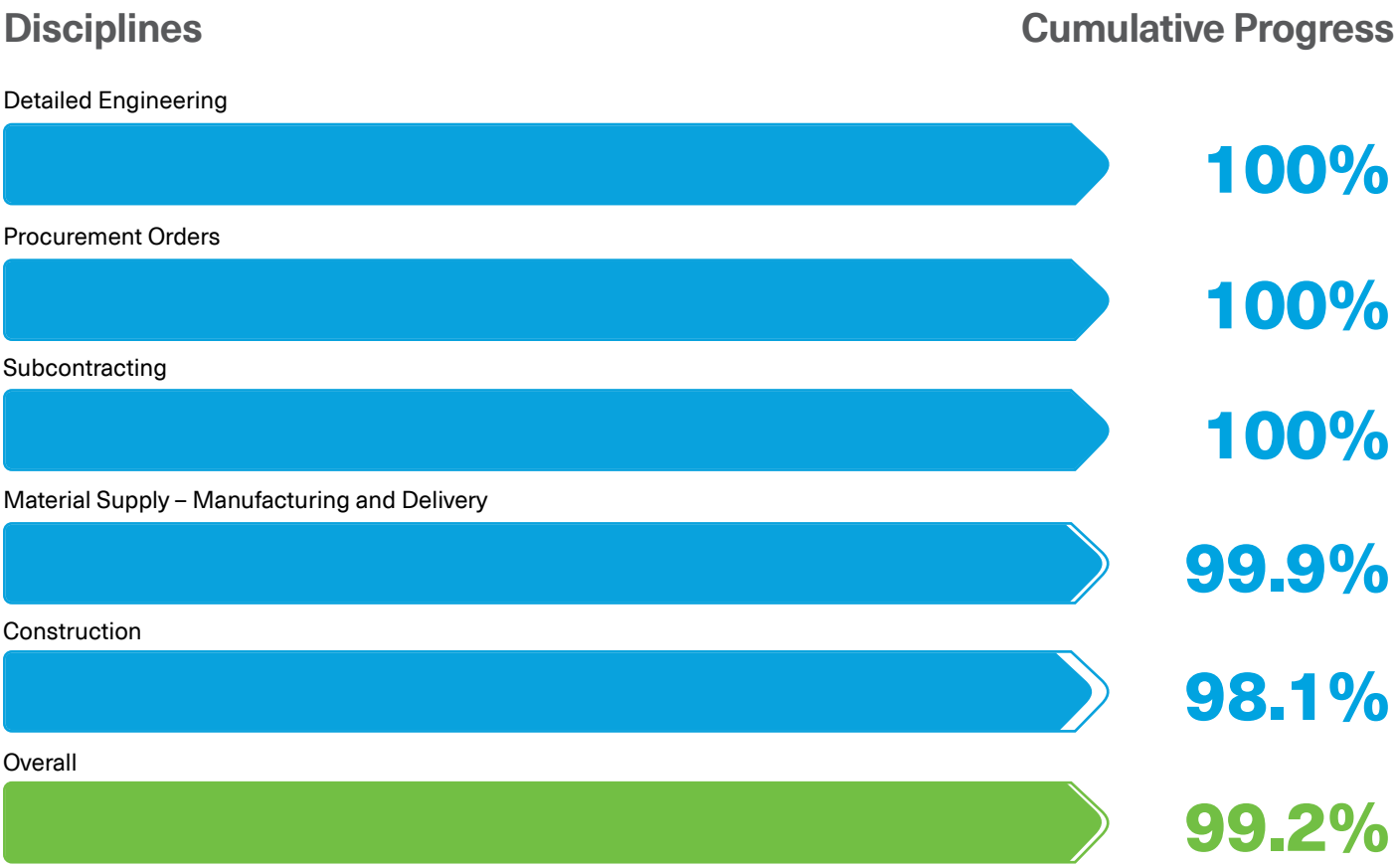
PP/U&O: Homogenization / Blender Silos.
Pre-commissioning activities in progress

PP/U&O: Raw Water Storage Tank.
Pre-commissioning activities in progress

February 2018	Progress over March 2018	March 2018
	PP/U&O: Interconnecting Pipe Racks. Pipe testing in progress	
	Nitrogen package. Commissioning activities in progress	
	Warehouse. Joint sealing works in progress	
	Roads. Internal roads' construction ongoing. Laying of the first asphalt layer ongoing. Area lighting works in progress	

Project progress status

PP Plant Progress



HDPE Plant Progress

Press tour from Russia to the SOCAR Polymer plant

Russian Mass Media representatives visit the plant

On 28-29 March 2018, a large group of Russian media representatives visited the SOCAR Polymer plant to produce press and video coverages on the topic of Russian-Azerbaijan collaboration in the framework of the SOCAR Polymer project.

The guests representing such established media companies as “HTB”, Interfax, MediaCorpus, Fact, 360TV and Expert, gathered at the VIP centre of the SOCAR Polymer plant in Sumgayit for a press conference with the General Manager of the SOCAR Polymer company, Farid Jafarov.

Later, they made a tour round the plant and interviewed several technology experts.

As a result of their two-day activity, articles were published at expert.ru, inbalashikha.ru and other online news media under the titles “Vertically accomplished” and “Made in Balashikha”. A video coverage on cooperation between SOCAR Polymer and Cryogenmash is available for viewing in the original language at SOCAR Polymer’s youtube channel. Below are some excerpts from the published content:

Video coverage on cooperation between SOCAR Polymer and Cryogenmash PJSC

The polymer business has no small prospects in Azerbaijan, a republic that imports all plastic from neighbouring countries: a local polymer plant stands for an additional half

billion of profit into the state treasury. That's why the opening of such a plant has long been the cherished dream of many a generation of Baku oil miners.

"Ideally, 100% utilization of the total polymer output for manufacturing of end products in Azerbaijan will result in additional 15,000 new jobs", SOCAR Polymer's General Manager Farid Jafarov underlined in an interview.

The Nitrogen Generation Unit (NGU) erected at the SOCAR Polymer plant was procured from a factory in Balashikha. It was the first vertical version of the generation unit designed and produced by the factory, as all the predecessors had tanks installed horizontally. Thus, the area occupied by the NGU was reduced by half.

Pumping liquid nitrogen and polymer constituents through the pipes, NGU is viewed as the heart of the plant.

Describing the design, the Head of the Modernization Department, Oleg Yakupov said: "The cryogen reservoir is like a thermos, only a high-tech one. It is a vessel inside a vessel. The inner vessel is made of austenitic stainless steel, with super-vacuum insulation."

The two cryogenic reservoirs can store up to 250 m3 of nitrogen. Additionally, the nitrogen generation unit can produce 3,500 m3 of nitrogen per hour. The feedstock for the unit is obtained literally out of air, but there is no magic to it – it's science alone.

A Project Manager for Cryogenmash, Sergei Mazur briefly described the process: "Atmospheric air goes through compressors, purification and separation chambers, and by the end of this route pure nitrogen is obtained."

Vertically accomplished

The Russian Cryogenmash company has launched test operation of the air nitrogen extraction unit equipped with a liquid nitrogen storage facility at the production site of the SOCAR Polymer company in Azerbaijan. The NGU is unique both for the Russian and world markets – the liquid nitrogen will be stored in two vertical cylindric reservoirs designed specifically for seismically active regions and are capable of withstanding a 9-magnitude earthquake. According to Cryogenmash specialists, the unit is the world's first vertically accomplished liquid nitrogen storage facility of such volume capacity – 250 m3 each. So, the experience in designing and assembling such novelty units puts the company ahead of its rivals bidding for the production of such.

Vertical positioning of the liquid nitrogen storage tanks had been the client's wish. According to the General Manager for SOCAR Polymer, Farid Jafarov, the size of the polymer production plant area has a considerable effect on the project's overall capital expenses: the smaller the construction site the shorter the communication distance between the various units and the less the length of the required pipes, cables, etc.

Thus, the entire nitrogen generation package fit into a 23x33 meters large area which is 5 times smaller than its horizontally designed equivalent. Meanwhile, according to a Project Manager for Cryogenmash Sergei Mazur, the vertical modification of the unit turned out twice as costly as a traditional one, for the cost incorporated new engineering design expenses. Sergei Mazur's forecast is that in the future when such systems enter serial production they will differ by one third only. Thus, despite the higher price of the vertical unit, SOCAR Polymer has even managed to save up on it – approximately 20%, according to Farid Jafarov.

Made in Balashikha

The Balashikha enterprize, Cryogenmash PJSC is participating in the construction of a new polypropylene production plant in the Sumgayit Chemical Industrial Park. It has designed and produced a new nitrogen generating cryogenic air separation unit, as well as a unique vertical tank system for liquid nitrogen storage in earthquake prone regions. Presently, final tests are under way to put the NGU into operation. The Mass Media representatives from Balashikha and Moscow have been able to personally witness the process by visiting the polymer plant in Baku. The visit has proved that Balashikha has what to be proud of. It is not just another unit Cryogenmash has produced, it is a new kind of cryogenic equipment that has had no parallel in the Russian Federation before. Cryogenmash has designed, produced and delivered the unit in ready-for-assembly modular form.

With production capacity of 3500 m3 per hour, the NGU features two cryogenic reservoirs uniquely accomplished in vertical position, which placed Cryogenmash ahead of other bidders leading in the markets of France, Germany and Italy.

The Project Manager for Cryogenmash PJSC, Sergei Mazur informed that the NGU had been produced based on the state-of-the-art technical and engineering solutions in the given field, enabling a considerable reduction in capital costs, and more resource-saving modes of operation as compared to the analogues from leading foreign companies. The NGU will be supplying highly pure nitrogen for the needs of a new polypropylene and high-density polyethylene production plant. Nitrogen is playing the role of both a transport agent that moves feedstock and final product within the pipe system of the plant, and a safety means against fire or explosion.

"Cryogenmash" PJSC is the Russian Federation's largest technology developer and manufacturer of equipment for air separation, and technical gas (oxygen, nitrogen, argon) supply, including systems for gas transportation and storage, and integrated solutions for the processing of natural or associated gas and production of liquefied natural gas.

According to the General Director for Cryogenmash PJSC, Maria Sokolova, this project is a good example of expanding economic cooperation between Russia and Azerbaijan, of an export project to supply SOCAR Polymer with Russia's science-intensive industrial products that meet global level standards of leading foreign engineering companies.

The General Manager for SOCAR Polymer, Farid Jafarov underlined that cooperation with a leading Russian enterprise is only natural for such a multinational project as SOCAR Polymer: "Azerbaijan and Russia are bound by the Caspian Sea, common historical past, a similar set of values, and, rather importantly, successful experience of reliable partnership in oil production and processing. For over a quarter of a century now, Russian companies have productively operated in our republic, while Azerbaijan specialists remain in demand with projects in Russia. Joint work with Cryogenmash has added another page to the history of our tangible business and production relations. Once again, together we are developing a new petrochemical industry. I hope that such high level of mutual understanding and trust will extend far into the future."

Dreams that come true

We all have dreams/ambitions – for ourselves, for our family and loved ones, even for our employer and country. Some come true easily, some take hard work and some never happen at all. I was told the following story of a dream/ambition over two years ago.

In October 2015, I arrived in Azerbaijan and met with remarkable people – Farid Jafarov, Emil Eminov, and Fuad Ahmadov. They outlined and explained to me the vision of senior SOCAR management to build PP and HDPE plants in Sumgayit, Azerbaijan.

They wanted to assemble a strong team – one that would be able to conceive, design and implement projects to world class safety and quality standards; one that would then be available not only for the current, but for any possible future projects.

I had heard such wishes expressed before – in the many countries I had worked in for Fluor over the preceding twenty-five years. One hears them every once in a while, and often they are but wishful thinking or just a political statement made to the point in discussion. So, not all of them can be taken seriously.

However, something made me believe these gentlemen were sincere. Perhaps, it was the passion and drive they seemed to have.

As it became apparent to me over the past few years, the dream/ambition was not for personal reasons. The focus all along has been on what these projects can do to help the Azerbaijani people – by increasing jobs, exports, revenue, etc. for the Government and people of Azerbaijan. It was not only a point verbally emphasized in many presentations over the past two years, but a true target like a guiding star

on the path leading to that end and confidently taken by the SOCAR Polymer company.

We tuned in and in early November 2016 issued job descriptions for plant staff positions. Jointly with the SOCAR Polymer's HR department, we assembled a capable team made up from qualified candidates. It did not take long to put a team together, as the education and work ethics of Azerbaijani people are, in my opinion, second to none.

Over the past thirty months we have achieved more than fifteen (15) million safe man-hours, with world class quality. This has been done with many SOCAR Polymer employees working together as a TEAM, each making their valuable contribution: the Engineering team, the Contracts team, the Construction team, the Safety team, the Quality team, the HR team, the Administrative office team, and many more... There are too many to name them all. However, what I must mention is that we have created not just individual teams – in less than 3 years, WE HAVE CREATED A COMPANY.

I personally would like to specifically mention Rufat Guliyev, Sabina Feyzova, Aydamir Huseynov, Sabina Latifova, Eric Strefford, Khalid Gasimov, Karl Wainwright, Tamara Maharramova, Bahruz Hajiyev, plus many, many more. Thank you all for helping me do my small part in this great achievement.

> The focus all along has been on what these projects can do to help the Azerbaijani people – by increasing jobs, exports, revenue, etc. for the Government and people of Azerbaijan.

This project is the most rewarding of my career so far.

John Arrowsmith
PMC company, FLUOR
General Construction Manager, SOCAR Polymer project

Beautiful and brilliant chemical engineers in oilfields, academic auditoriums and industrial labs

It is the time of the year when many a family conversation across the world revolve around the better and prettiest part of humankind. Mothers, grannies, wives, aunts, daughters – female family and friends – are lavished with love and affection in early March, as life is renewed following the sun circle.

The coming of spring, the awakening of earth, the sprouting, blooming and blossoming – the essential biological processes are powered by sophisticated chemical reactions mastered by the most fastidious chemists of all, Mother Nature. It makes it all the more appealing to believe that women, as Nature's most diligent students, were also the very first chemists on Earth: using fire and salt to process raw meat, herbs to cure wounds, and plant-derived dies to colour fiber.

In an endevour to learn from the primordial teacher, they observed, took notice, made conclusions, tested new knowledge and came up with advanced solutions to serve the society's growing needs.

It is natural that the land of blazing fires, prodigious petrol and miraculous naphthalan gave birth to a large cohort of brilliant chemists among the Azerbaijani women. It would be fair to name them all, and perhaps one day the occasion will ask for it. Meanwhile, we shall humbly attempt to take a snapshot of the epoch set off by the oil production in the middle of the XIX century.

IZZET ORUJOVA

16.09.1909 – 22.04.1983

Izzet Orucova in a laboratory, 1956

Izzet Orucova playing the title role in "Almas", 1936

A Baku native and a female who would receive higher education, become an engineer, and turn into a film star in the early 1920th, when most women still held onto paranja, Izzet Orujova stood out as a phenomenon. The very first Azerbaijani movie star, whose uncovered face hit the wide screens in 1929, she became Director of the Azerbaijan Institute of Chemistry of Additives in 1971, a member of the Azerbaijan Academy of Sciences, the first woman there too, decorated with the highest state awards and orders for the scientific achievement, increasing the efficiency of oil-derived lubricants and bringing hundreds of thousands of dollars' worth of effectuated profit to national economy.

RAFIGA ALIYEVA

20.09.1932 – 06.05.2017

Rafiga Alirza-gizi Aliyeva was a Doctor of chemical sciences, Professor, a Member of the Azerbaijan National Academy of Sciences, a nominee for the "Glory" award and an honored scientist.

The National leader Heydar Aliyev's sister Rafiga Alirza gizi Aliyeva was born on 10 September 1932 in Nakhchivan.
Rafiga Aliyeva graduated from the chemistry department of the Azerbaijan State University (currently BSU). She defended her thesis on analytical chemistry in 1970, and her doctoral dissertation in 1999. During her 61-year career Rafiga Aliyeva worked as a research assistant at the Institute of Chemistry Problems, Assistant Professor, Senior Lecturer, Associate Professor and Professor of BSU as well as Head of the Laboratory of Environmental Chemistry and Environmental Protection of the Chemistry Depatment.
The main scientific works of R.Aliyeva are devoted to the methods of identification and application of metals in complex systems using photometric methods including organic reagents.
The main scientific direction of the research laboratory led by R.Aliyeva was the analysis of harmful substances in the composition of natural and industrial facilities, with further identification of metals using organic reagents and the methods of their separation.
The author of more than 450 manuals, 25 textbooks and 20 patents she was a member of many scientific councils and societies. More than 20 PhDs and Doctor of Sciences have been prepared under the guidance of this big scientist.
Rafiga Aliyeva passed away on 6 May 2017 at the age of 85. The scientist was buried in the Alley of Honor.

FAZILA SAMADOVA

Born in the Shamakhi region in central Azerbaijan, Fazila Samadova dreamt to follow steps of her elder brother, Fuad, one of the pioneer geologists who discovered the legendary Oil Rock reserve. Dr. Samadova, PhD Technical Sciences, is now a corresponding member of the Azerbaijan National Academy of Sciences, decorated with many an honourable title, medal and order. Fazila keeps over 70 patents, has co-authored 420 scientific publications. She is an eloquent poet, and an internationally-recognized expert on Azeri oil blends, an author to 14 books, including "Azerbaijan oil blends, grades and composition", and "Azerbaijan oil grades in new reserves, and their heteroatomic compounds".

Happy international women's day on the 8th of march

Between Dr. Izzet Orucova, Dr. Rafiga Aliyeva and Dr.Fazila Samadova, there has been a pleiade of brilliant chemists, analysts, and engineers among Azerbaijani women, those who never hesitated to shoulder the workload leading the entire oilfields when their men were fighting in the battlefields of World War II: Medina Vezirova, Sugra Gaibova, Sakina Guliyeva, Antonina Bakulina, Sofia Kryuchkina, Anna Pleshko. They led the reconstruction in the years that followed the devastating war, and were equal-right-builders of unique Sumgayit chemical production facilities, largest in Europe in the 1950s.
To this day the unsung heroines, they make the overpowering majority of scientific research, test and experiment labs throughout the country and keep on making discoveries, writing volumes, teaching students and being the best of mothers.
To all of the brave, brilliant and beautiful chemical engineers, we pay the homage, with great respect, true admiration and heart-felt love.

A prominent achievement to celebrate alongside with 8 March

On March 7, the eve of this year's international women's day celebrations, five smart, brave and motivated ladies from SOCAR Polymer made up a team to represent our company at the "Khamsa" intelligence game organized by Azerikimya PU. It is with utmost pleasure, that we announce their having won the 2nd place in this knowledge-based competition.

Team members (L to R): Gulnar Huseynli, Zefira Mahmudova, Govhar Mammadova, Sevinj Mammadova, and Khalida Alimirzayeva

Some of the organizations and enterprises represented by the 20 participant-teams were Azerikimya, SOCAR Ecology department, Carbamide plant, Baku Engineering University, Baku Higher Oil School, National Library, Sumgait State University, Baku branch of the Moscow State University, Sumgait Training Centre, ASAN Service, Ethylene-polyethylene plant, and schools number 6, 22 and 30.

The game consisted of two stages: selective and final. The selective stage comprised 3 rounds with 4 topics in each. So, with 5 questions per topic, all teams had eventually pondered over a total of 60 questions. The answers had to be written on cards immediately collected by the game attendants. All questions had to do with women, be it women in cinema, science, song lyrics, history, geography, astronomy, art, or literature.

At the end of the selective stage, 4 out of 20 teams qualified for the final stage of the competition where team members were coming forth to manage questions individually without team support. Thus, the participants could demonstrate their advantages both as a team and individuals.

Some of the questions that moved our team forward in score have been the following:

I round:

1. Apart from the wife of the 44th USA president J.F.Kennedy, who was the next 1st lady who made changes in the interior of the White House?
2. What did Ruth Handler create after she observed her daughter playing with paper dolls?
3. What invention did Marion Donovan make in 1917 using a sewing machine and a shower curtain to later receive four patents for it, particularly for using plastic snaps as opposed to safety pins?
4. A London-based designer, Mary Quant sourced inspiration from Mini Cooper cars to come up with an invention. Name the invention.
5. S.West invented it saying that tidiness must be present not only indoors, but also out in the streets. Name it.
6. What did Mary Anderson invent on a snowy and rainy day in 1903?
7. Name the actress who played the part of Zuleykha in the "Qanun namine" ("Driven by law") movie.
8. Born in Yevlakh in 1967, she is currently a teacher at the

National Conservatoire. Name her.

9. Name the woman whom Beatles dedicated one of their songs in 1965.
10. She is Turkish by origin, born in Strasburg (France), and the author of "The forty rules of love" bestseller. Name her.
11. Name the author who is famous for killing her story characters by poisoning.

II round:

12. This village in Absheron was named after the daughter of prophet Mohammad and wife of imam Ali. Name it.
13. What village was named after a female journalist machine-gunned in 1991 in the vicinity of the Lachin-Shusha fortress?
14. Which of the USA states was named after Queen Elisabeth I, with the state capital in Richmond city?
15. A city in the south-east of British Columbia in Canada (near Vancouver) and a city in Seychelles bear the same name. What is it?
16. An Uruguay citizen, she became famous in Argentina. In 2000 she performed the song Rio de la Plata. Name her.
17. With beauty derived from her Native-Brazilian, African-Brazilian, Portuguese, French, and Caribbean heritage, she was named "the most valuable Victoria's Secret Angel" in 2017. Her surname sounds the same as the capital city of a Latin American country. Name her.
18. Which Azerbaijani folk song arouse mass protests when performed in Cuba by an Azerbaijani music band?
19. In 2005, the "Angie" song by Rolling Stones was used in the election campaign of this famous person. Name the person.
20. Which song by Adriano Celentano starts with the words "seven days" and mentions San Tropez and Malibu?
21. Name the character of Jafar Jabbarli's famous play, performed by Izzat Orujova in 1936?
22. Name the movie character played by Mara Wilson in 1996 or the female character in the movie "Leon".
23. Name the movie filmed by Luke Besson in the 90s and granted the Caesar award.
24. Name the movie about a Mexican gypsy, which was filmed in 1970 and became very famous in USSR.

III round:

25. Name of a Ukrainian singer's or the capital of Bulgaria
26. Which town in the Urals area was named by Peter I after a Russian queen?

We are proud of our staff and thank our ladies for keeping up our reputation of a company with well-educated, capable and progressive employees. Congratulations, ladies, and thank you for this meaningful victory! Well done!

Training and practice make best

CIPS Certificates awarded to 3 procurement and logistics specialists

In a follow-up of the news published in the June and September issues of this corporate newsletter regarding our employees' professional development, we continue reporting the progress achieved by a group of SOCAR Polymer's procurement specialists advancing through the Procurement and Supply Operations (PSO) course schedule. The course lasted from February till November 2017. The NC4 and NC5 stages of the course have been successfully completed by the following employees who received their CIPS Certificates in March 2018:

Highest score rating:	NC1 P&S principles May 2017	NC2 P&S functions May 2017	NC3 P&S processes July 2017	NC4 P&S stakeholders Nov 2017	NC5 P&S administration Nov 2017
1	Kamal Ibrahimli	Kamal Ibrahimli	Samira Ibrahimli	Kamal Ibrahimli	Kamal Ibrahimli
2	Javid Aliyev	Samira Ibrahimli	Kamal Ibrahimli	Samira Ibrahimli	Samira Ibrahimli
3	Gulu Nabiyev	Gulu Nabiyev	Javid Aliyev	Javid Aliyev	Javid Aliyev
4	Samira Ibrahimli, Roya Aliyeva	Javid Aliyev	Gulu Nabiyev	Gulu Nabiyev	
5	Tural Mustafayev	Tural Mustafayev			

Upon completion of all 5 units, CIPS Certificate awardees can choose to continue into the next two levels, each consisting of 5 units and resulting in an Advanced Certificate and a Diploma, respectively. Additionally, there are two sub-levels related to the Diploma qualification: Advanced Diploma in PSO and Professional Diploma in PSO.

These PSO trainings are conducted by the Chartered Institute of Procurement and Supply (CIPS), which exists to promote and develop high standards of professional skill, ability and integrity among all those engaged in purchasing and supply chain management. CIPS assists individuals, organisations and the profession as a whole.

Kamal Ibrahimli
Procurement Specialist

- The course helped me to get a more comprehensive vision of how a Supply Chain should operate as part of a given company. Through my course studies I've learned that SCM is a very complicated organism which has a direct impact on a company's overall performance. The obtained knowledge has allowed me to better understand the importance of procurement decision-making in terms of cost-saving and quality improvement.

Samira Ibrahimli
Logistics specialist

- CIPS is the world's largest institute in the field of procurement and supply. The knowledge, skills and understanding provided throughout the course builds up your fundamental professional knowledge with regards to the key processes in procurement and supply. The gained knowledge will improve my performance as I apply it in my daily work.

Javid Aliyev
Senior Procurement Specialist

- Whatever the job, it's important that the right education and training be always backed up by practical hands-on experience. I consider the CIPS training to be one of the methods for assessing employee qualifications. The main goal of qualification is updating the employee with practical and theoretical knowledge in the sphere of his professional activity. Such updating of knowledge is necessary in connection with the increase of requirements for solving special tasks in the supply chain management activity. For me the mentioned qualification is a professional development and accomplishment of the knowledge and skills, competencies that will help me in daily work. I am very pleased to be one of the successfully completing the relevant qualifications and looking forward to participating in a next levels accordingly.

Putting theory into practice, it also gives me the opportunity to bring best practice into the business - raising internal profile and potentially helping me develop a number of valuable cost saving efficiencies for success of the organization. This is possibility to hone existing skills in a niche area regarding a specific practical training course to expand my skill set.

CMA Certificate awarded

For more than 40 years, the CMA® (Certified Management Accountant) certification has been the global benchmark for accountants and financial professionals, because CMAs can explain the "why" behind numbers, not just the "what." And that gives them greater credibility and higher earning potential. More importantly, the certification is a pathway to a more successful business career: one that opens doors, builds confidence, closes skills gaps, and lets you tap into a network of 100,000 professionals around the globe.

A Senior Accountant for SOCAR Polymer, Orkhan Samadov had taken a CMA certificate course for 7 months since July 2017. The course consisted of two parts: the first covered such topics as financial reporting, planning, budgeting, forecasting, performance management, cost management and internal controls; the second focused on financial statement analysis, corporate finance, decision analysis, risk management, investment decisions, and professional ethics. The exams following each part were held in September 2017 and January 2018, respectively. Having passed both exams, Orkhan Samadov has progressed to the next step of his CMA journey and obtained a CMA Certificate from IMA (Institute of Management Accountants) which is the worldwide association of accountants and financial professionals in business. Founded in 1919, it is one of the largest and most respected associations focused exclusively on advancing the management accounting profession.

Orkhan Samadov
Senior Accountant

- Completion of this course has been an important milestone in my professional development. Through developing and upgrading my knowledge, I am becoming better aware of the modern financial techniques, as well as of implications and interpretations of updated and newly adopted standards in financing. The obtained knowledge comes in useful in my daily work, as I prepare periodical financial reports.

OPS Trainings

OPS (operations) trainings are offshore/onshore trainings conducted for SOCAR Polymer's operation/maintenance/ laboratory staff to expand their theoretical knowledge and practical skills regarding the technical aspects of operating/maintaining various types of equipment/ facilities installed at the PP plant. Trainings are arranged by Tecnimont, SOCAR Polymer or Fluor, and are delivered at vendors' facilities abroad or at appropriate institutions in Azerbaijan.

In the month of March, SOCAR Polymer employees attended the following trainings abroad:

OFFSHORE TRAININGS					
Training theme	**Company/Location**	**Duration**	**Dates**	**Number of participants**	**Participants' positions**
Reactor Circulation Pumps	ENSIVAL MORET Eupen, Belgium	1 week	5 - 9 Mar	5	2 mechanical supervisors and 3 mechanical technicians
Powder conveying compressor	ZEPPELIN SYSTEMS GERMANY SRL Friedrichshafen, Germany	3 days	12 – 14 Mar	5	2 mechanical supervisors and 3 mechanical technicians
ESD	YOKOGAWA Banglore, India	1 week	12 – 16 Mar	9	2 process engineers, 1 instrument supervisor, 3 DCS technicians, 2 instrument technicians, and 1 process analyser technician
Pellet blower	ZEPPELIN SYSTEMS GERMANY SRL Aerzen, Germany	2 days	15 – 16 Mar	5	2 mechanical supervisors and 3 mechanical technicians

On-the-job training sessions at the SOCAR Polymer plant site

The EPC contract with the Tecnimont company includes trainings which the Kinetics Technology (KT) company has been provided on daily basis since 28 August. The extensive Training Program scheduled for the period from August 2017 till mid-February of 2018 covers all aspects of plant operations and envisages both Classroom training (480 hours total) by various specialists and vendors, and On-job training (1,050 hours total) to be led by experienced technicians until the end of the project to ensure complete grooming of SOCAR Polymer operators to efficiently handle the Plant. The trainings are listed under four major disciplines/categories: electrical, instrumentation, mechanical and operation. Thus, the SOCAR Polymer plant personnel gets a better understanding of the principles of equipment operation, and grows better informed of the basic maintenance and troubleshooting processes.

More detailed information on some of the training sessions conducted on site in March is provided below:

Training title	Duration	Dates	Number of participants	Participants' positions
Seat Belt Awareness	1 day	1 Mar	38	14 instrument technicians, 1PP plant operator, 17 HDPE plant operators, 6 electrical technicians
Radiation Safety	1 day	15 Mar	2	1 HSE Team Lead and 1 instrument technician
		16 Mar	2	1 HSE Team Lead and 1 instrument technician

First stage of the *Inspiring the Youngest* project completed

In March, SOCAR Polymer continued paying visits to schools in the framework of the Inspiring the Youngest project initiated at the wake of 2018, targeting schoolchildren in grade seven, who had just embarked on studying chemistry. Thus, in March, the project team visited schools number 253 and 53 in the Garadagh and Yasamal districts, respectively.

Public secondary school 253

On March 7, the 7th-graders of public secondary school number 253 in the Garadagh district welcomed the project group and actively participated in the discussions on the topics of the presentation made by SOCAR Polymer's young process engineers. Not only did the children exhibit awareness of some basic chemical facts, but also demonstrated genuine interest and eagerness to learn by asking the presenters many questions regarding chemistry in everyday life. They were curious to know if there were any polymers naturally occurring in human body, if plastics were harmful for human health, how safe it was to store water in plastic bottles, why oil products could be polymeric while oil was not, why oil didn't mix with water, why some oil products were harmful while others like Naftalan oil was good for human health, and whether scented candle vapour were harmful if breathed in, so they took the chance to inquire. Most active among the classmates were Gadir Mansumov, Chinara Khaligova, Seljan Babazadeh, Zahra Guliyeva, Famil Salikov, Aytaj Hajiverdiyeva, Rafig Hashimov, Javid Mammadov, Aysu Guluzadeh, Mehriban Nusratova, and Shakir Zahidov. The chemistry teacher, Sevinj Aliyeva encouraged the children not to be shy and join in the discussions. The meeting held in a friendly atmosphere turned out pleasantly productive.

Public secondary school 53

On March 9, the project team visited public school number 53 in the Yasamal district – the last on the list for the project's trial stage.

Every visited school revealed to the project participants the potential schoolchildren have in store for development through exploration of unknown phenomena brought to their attention at proper time. Every school and its everyday attenders turned out different in their approach to and perception of the presented material and of the event as a whole.

Among the 7th-graders at school 53, Nariman Aslanov, Suleyman Sharifzadeh, Zahra Huseynova, Farid Abbaszadeh, Fargun Alizadeh, Farah Allahverdiyeva and Suleyman Bakhshiyev got most actively and readily involved in the Q&A sessions and discussions, revealing their potential to the guests from SOCAR Polymer and to their very own teachers, because the engaging atmosphere of the meeting stirred up the shyest and most taciturn members of the class.

Upon completion of the first trial stage of the Inspiring the Youngest project, SOCAR Polymer's PR team summarized and evaluated its results against the set targets. The project objective was to make schoolchildren aware of the practical use of the knowledge gained in chemistry classes, to uncover the curious and fun parts of the chemistry science, and, most importantly, to inspire the young generation of Azerbaijan, where the chemical industry is on the rise, to take interest in and choose professions in the field of chemistry. Apart from that, the schoolchildren got a chance to learn about the SOCAR Polymer company, and polymers in particular.

Supported by the Baku Education Office, this social and educational Project has encompassed public schools number 244, 253, 273 and 53 located in the Binagadi, Garadagh and Yasamal districts, and the private Azerbaijan British College in Baku. The project events held at the mentioned education facilities have benefitted more than 150 children who realized that chemical reactions take place every second in our daily life, both in the environment and human body; that chemistry is a broad science and the chemical industry plays an important role in modern life. Thus, for instance, they learned that polymers were hard enough to be used in bulletproof vests and that many things around them were composed of natural or synthetic polymers.

To make a stronger impression on the schoolchildren, the presentations were given by our young colleagues, Nizam Zahidli and Sevinj Gafarli. These junior process engineers who had scored high at university entrance exams and completed SOCAR Polymer's Summer Internship program to get subsequently selected for an early career start have set good examples for schoolers to follow.

The idea to initiate the "Inspire the Youngest" project stemmed out of the Action Plan for the implementation of the "State Program on the development of industry in the Republic of Azerbaijan in 2015-2020" signed by President Ilham Aliyev on 26 December 2014. Among the main objectives of the state program were "improvement of human resources and promotion of science" (item 5.4) and "bringing the HR development processes in education facilities into conformity with the demands of the labour market" (item 5.4.5).

SOCAR Polymer and Azerikimya Honoured 1918 Genocide Victims Memory

On 31 March 2018, SOCAR Polymer joined the delegation steered by Azerikimya to visit the memorials in Guba and Gusar regions, to commemorate a centenary of the genocide against the Azerbaijani people.

Corporate staff as well as Sumgayit chemical industry delegates, entrepreneurs, business leaders, official authority and representatives of the academic, educational, and cultural communities, public organizations, and mass media travelled to Guba to bow a knee and lay a wreath at the Guba Genocide Memorial, a poignant testimony to the tragic events in the history of Azerbaijan, the horror and carnage our people had lived through.

Chairman of the Board of Azerikimya Mukhtar Babayev, Milli Mejlis deputies Tahir Mirkishili, Mirzajan Khalilov, Azer Badamov and Eldaniz Salimov guided the commemorating ceremony at the Guba Genocide Memorial museum complex. A wreath was laid at the base of the memorial on behalf of the chemical community of Sumgayit, followed by a one-minute silence to mourn the lives of our compatriots brutally cut short in 1918 by Armenian barbarians, and to pray for the innocent souls.

Further on, the delegation travelled from Guba to Gusar to lay a wreath and flowers to the Gusar Blood Valley Memorial raised in 2009 to pay tribute to the valiant of Guba and Gusar who fought against the Armenian Dashnak troops in 1918, and drove the outnumbering armed gangs of the Armenian enemy away.

Standing in front of the Memorial, an official representative of the Gusar Region executive authority spoke of the massacre and bloodshed inflicted by Hamazasp Srvandzyan, an Armenian partisan military commander who became infamous for outstanding personal ferocity against the Lezgian and Jew residents of the Guba region. By committing outrageous atrocities, he acted on the orders of his superiors, Anastas Mikoyan and Stepan Shaumyan, the fanatics disguised into Bolsheviks. The passionate and emphatic speech met the understanding of all those who came to honour the heroes.

Poets Yafik Yusifoglu and Rafik Oday spoke in turn emphasizing the survivance of memory, and the fact that one hundred years is a short time span taken from the history perspective. Mass casualty burials unearthed in Guba date back just a 100 years; they come from our immediate past and have a direct impact on our modern day lives.

Just as they did so in the early XX century, the Armenian villains still cherish their sickly perverted views of the world. What's worth, they are still challenged regrettably but by a few, keeping on to perpetrate transgression and monstrosities in Nagorno-Karabakh, Khojaly, Shusha, Kalbajar and other settlements on the land of Azerbaijan.

Our new generations, our entire nation as well as the world community must know that the conflict is deeply rooted, and the blood-drenching list of murderous crimes committed by the Armenian offenders against the people of Azerbaijan is much longer: mass murders of the Azerbaijani nationals recurred in 1905-1906, 1918-1920, 1948-1953 and 1988-1994. They say history will judge. We trust it will.

SOCAR Polymer joins in a charity action

On the occasion of the Novruz holiday, the SOCAR Polymer company remaining true to its tradition of supporting charity initiatives, joined in the event organized jointly by the Sumgayit city Executive Authority and the Sumgayit city branch of the Azerbaijan Red Crescent Society (AzRC), with the support of Azerikimya PU and SOCAR Polymer LLC.

The purpose of the event was to bring some holiday joy and an air of spring's generosity into about 650 low-income family households. The guests of the event included the families of war or labour veterans, martyrs, disabled people, low-income families, as well as the members of such organizations as the Sumgayit Society of Disabled Women, Society for International Cooperation of the Disabled, the Council of War, Labour and Military Veterans, the "Rahib" Charity Society of Martyr families and Garabagh War Invalids, the Sumgayit city branch of the Republic's Society of the Visually Impaired, and people listed by the Sumgayit branch of the Red Crescent Society.

On the eve of the event, the staff and volunteers of the AzRC Sumgayit branch had sorted and packed 300 food parcels to be distributed to the financially vulnerable society members.

Speaking at the event, the Deputy Head of Sumgayit city Executive Authority, Mr. Teymur Samadov congratulated the participants on the occasion of the Novruz holiday and expressed gratitude to the organizations and companies who helped arrange this event as a festive celebration of the national spring holiday which brings warmth to nature and reveals the warmth of the Azerbaijani people's hearts. Among the speakers was the Chairwoman of the AzRC Sumgayit city branch.

The SOCAR Polymer company represented by our Cost Accountant Famil Mammadov was presented a Certificate of Appreciation for the contribution into the noble cause of this event.

The official part of the event was followed by a mini concert and the guests enjoyed listening and dancing to national music. Then the present packages with food and gifts were distributed to the target audience who expressed their gratitude for the positive emotions and material support. Gift packages were also delivered to bedridden patients' homes.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SUMQAYITLI

Tell me what your sleeper is made of...

A railroad sleeper is a part of the track system used to keep the rails at a given distance, and to transfer mechanical loads to the track bed.

Timber was the earliest material used to make sleepers (crossties) in the very early XIXth century, as the British engineers invented the modern rail transport to move coal from inland mines, where it was produced, to shipping points by the seaside.

Around the 1880s, steel railway sleepers were introduced as an alternative to timber. Anecdotally, steel ties were also used in specialty situations, such as the Hejaz Railway in the Arabian Peninsula, which had a recurrent problem with Bedouins stealing wooden ties for campfires. Monoblock concrete sleepers were first applied in 1943 and are now used in heavy haul and high speed rail track constructions throughout the world.

However, none of the traditional materials does satisfactorily meet the sleeper ideal.

Creosote-treated oak sleepers remain the most frequently used of all, despite the fact that they deteriorate fast (roughly 20% of sleepers are replaced every year), affected by climate, heavier loads and accelerated train speeds. Following a lifespan of five to 15 year, these sleepers could be recycled into construction materials or wood char, provided creosote agents are neutralized prior to processing. Stringent ecological standards make the associated costs high yet unavoidable.

Polymer composites

Today, composite sleeper technologies are emerging as an alternative to traditional materials. The new sleepers exhibit a range of competitive advantages over conventional analogues, such as superior ability to resist mechanical, biological and chemical degradation, remarkably low primary material consumption, low maintenance cost, and extended life cycle, up to 50 to 70 years of service depending on the technology.

As of early 2000th, plastic sleepers have been swiftly embraced by the Netherlands, France, Austria, Germany, Sweden, Malaysia, Canada and USA, for use as durable support in surface and subway railway lines in public transportation, such as trams and tube, intercity commuter trains, as well as in mining industry infrastructure.

Sleepers made of recycled plastic become increasingly popular with municipal authorities across the world, as they allow to spur secondary raw material use, reduce waste, and involve virtually no life cycle management costs. They also have reasonable price. On the flip side, the non-expensive plastic waste sleepers suffer from low strength and stiffness, limited design flexibility, temperature and creep sensitivity, and marginal fire resistance. Although the wear and tear vary from region to region.

To the contrary, sleepers made of reinforced polymer composites have virtually no weak points, demonstrating superior weather resistance and fatigue performance, high strength and resilience. Yet prohibitive technology cost is one of the main reasons why their uptake by the market is slow. Limited information on long-term performance - still unknown because it is so recent – is another barrier to their widespread application.

A matter of time

Manifestly, this is not an issue under debate, for the thermoplastic sleeper to be or not to be. Rather, it is a matter of time when polymer would drive timber out, making it a museum artefact, a sort of “Timber Sleeper” objet d’art.

Composite polymeric materials will eventually replace expensive natural ones, including for the future generation sleeper. For now, routine assessments of the newcomer’s field performance is needed to overcome the challenge in acceptance and application.

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