



中石化石油工程技术服务有限公司
Sinopec Oilfield Service Corporation

**2018 Environmental, Social, and
Governance (ESG) Report**

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About the Report

Sinopec Oilfield Service Corporation (hereinafter referred to as "Sinopec Oilfield Service" or "the Company", "we", or "Oilfield Service Corporation") has always adhered to the concept of "Honesty and Integrity, Cooperation and Mutual Benefits and Requite the Locality" of China Petrochemical Corporation (hereinafter referred to as "CPC"). While creating economic value for shareholders, the Company has actively fulfilled corporate social responsibility by improving project construction services, strengthening operational management, attaching importance to employee development, and strengthening environmental improvement and social care.

The Report has been prepared based on the actual conditions of the Company and in accordance with relevant laws, regulations and provisions, including the *"Notice on Strengthening Listed Companies' Undertaking of Social Responsibilities and Issuance of 'Guidelines on Environmental Information Disclosure by Companies Listed on Shanghai Stock Exchange'"*, the *"Guidelines on Environmental Information Disclosure by Companies Listed on Shanghai Stock Exchange, Appendix 2 'Guidelines on Preparation of 'Corporate Report on Performance of Social Responsibilities'"* to the *Memorandum No. 1 on 2009 Annual Report for Listed Companies* and Appendix 27 *"Environmental, Social and Governance Report Guideline"* to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (hereinafter referred to as "Hong Kong Stock Exchange"). Unless otherwise stated, the scope of the Report includes Sinopec Oilfield Service Corporation and its subsidiaries.

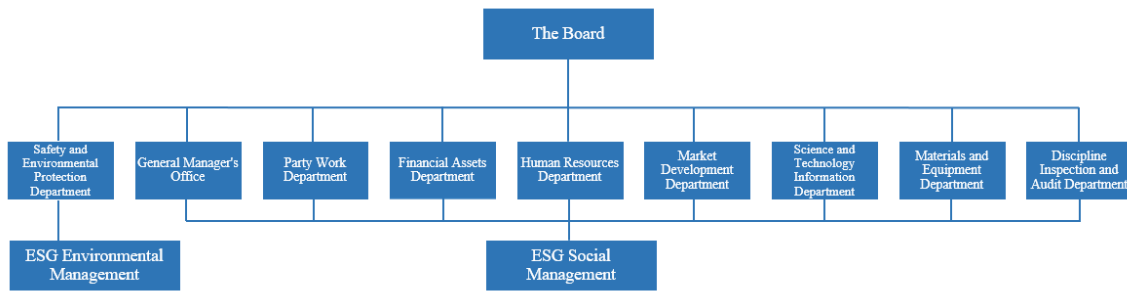
The information and cases in the Report are extracted from the original records of actual operations of Sinopec Oilfield Service Corporation and its entities. This report should be read in conjunction with the section "Corporate Governance" in Sinopec Oilfield Service Corporation Annual Report 2018 to help readers understand the Company more comprehensively.

ESG Management System

As the largest integrated and professional oil and gas engineering and technology service company in China, Sinopec Oilfield Service has always adhered to the corporate mission of "building a strong petroleum engineering company and refueling for a better life", firmly established the development concept of "taking market as the root and service as the soul, profit being the base and pursuing win-win results through cooperation" and implemented the core values of "being people-oriented, and pursuing good quality, innovation and win-win results". Much effort has been made to expand the market, reduce costs and fees, create returns from projects and conduct strict management, which are four major tasks of the Company. We have also solidly advanced the four key initiatives of innovation-driven, deepening reform, structural adjustment and transformational development. We have made new progress in all works through overcoming difficulties. The Company fulfilled its social responsibilities in real earnest and attached importance to safety in production, resource saving, environmental protection and employee caring, with supports rendered for public welfare undertakings and assistances contributed to the regional economic development,

which facilitated the balanced and sustainable development between the enterprise and employees and between the community and the environment.

In order to carry out the Company's development philosophy and promote the implementation of the ESG management work, the Board of Sinopec Oilfield Service is responsible for formulating the overall ESG strategy and making decisions on major issues in ESG management. Meanwhile, Sinopec Oilfield Service relies on the current management organization structure to clarify the management functions of each department, and conduct comprehensive management of all aspects of the ESG through the General Manager's Office, Party Work Department, Financial Assets Department, Human Resources Department, Market Development Department (Project Management Department), Safety and Environmental Protection Department, Science and Technology Information Department, Materials and Equipment Department and Discipline Inspection and Audit Department.



Depending on the characteristics of the overall business and operating activities, Sinopec Oilfield Service has identified key stakeholders including shareholders and investors, governments and regulators, stakeholders and investors, employees, suppliers, customers, partners, communities and the general public. In the process of ESG management, Sinopec Oilfield Service gradually sorted out and established communication channels with various stakeholders through continuous improvement of the communication mechanism to ensure that the expectations and appeals of each other can be effectively communicated in a timely manner. Major stakeholders and their communication channels include but are not limited to:

Summary of major communication channels and concerns of stakeholders of Sinopec Oilfield Service		
Stakeholders	Communication channels	Topics of concern
Government and regulators	Important conferences, Policy advisory, Case report, Inspection, Documents exchange, Information disclosure	<ul style="list-style-type: none"> • Operation compliance • Corporate governance • Energy conservation
Shareholder and	Shareholders' meeting,	<ul style="list-style-type: none"> • Profitability • Operating strategy

investors	Periodical report, Interim report	<ul style="list-style-type: none"> • Transparent disclosure
Clients	Client visits, Client satisfaction survey	<ul style="list-style-type: none"> • Service quality • Information security
Employees	Employee satisfaction survey, Employee activity, Employee training, Internal publication	<ul style="list-style-type: none"> • Salary and welfare • Development and training • Occupational Health and Safety
Suppliers	Supplier identification, Communication meeting	<ul style="list-style-type: none"> • Fair cooperation • Honest agreement
Partners	Strategic cooperation talks, Bilateral talks	<ul style="list-style-type: none"> • Fair cooperation • Honest agreement • Joint development
Community and the public	Public benefit activities, Community activities, Recruitment talks, Opportunity of internship	<ul style="list-style-type: none"> • Cooperate social relationship • Community relationship • Employment promotion • Community investment and public welfare

Based on the communication with and feedback from stakeholders in the actual operations, the Company has summarized the focuses of stakeholders on ESG management. Key ESG topics in 2018 focus on health and safety, product liability, emissions, resource use, environmental and natural resources, anti-corruption, employee employment, labor standards, development and training, supply chain management and community investment.

Work Safety

The Company has consistently implemented the policy of “safety first, prevention first and comprehensive management and control” and strictly complied with regulatory requirements such as the *Law of the People's Republic of China on Work Safety and Interim Provisions on the Investigation and Control of Safety Accidents of the People's Republic of China*. Based on its own operation characteristics, the Company formulated the *Administrative Measures on Safety and Environmental Supervision of Sinopec Oilfield Service Corporation*, *HSE Management Regulations of Sinopec Oilfield Service Corporation* and other safety management rules and regulations. In 2018, the Company issued four management systems including Work Safety Responsibility System of Sinopec Oilfield Service Corporation, revised the HSSE Performance Evaluation Management Regulations of Sinopec Oilfield Service Corporation and Management System for Wellbore Engineering Operation Permits of Sinopec Oilfield Service Corporation and other management systems, in an effort to further improve the safety management system. Through developing a management improvement project centered on grassroots construction, intrinsic safety, process system, performance appraisal, and accountability,

the Company strengthened the standardization of grassroots operations, and comprehensively improved the safety management capabilities.

The Company advocated prevention as the main measure, constantly improved relevant rules and regulations, focused on the fulfillment of safety production responsibility, strengthened the supervision team building, kept a close eye on the on-site risk management and control, and paid great attention to the improvement of safety production management, which had ensured the safe production situation of the Company was generally smooth throughout the year, including:

- Strengthening the operation of HSE sub-committees. The Company and its regional (professional) companies set up HSE sub-committees to improve the rules and regulations, and carried out key tasks such as risk identification, professional training and special inspections, effectively strengthening professional supervision and achieving standardized operation.
- Strengthening the fulfillment of the responsibilities of grass-roots units. The Company paid close attention to the standardized operation of officers and employees, supervised and fulfilled the duties of “localized management”, established a relatively complete performance appraisal mechanism to implement quantitative assessment, made assessment and incentives at each level, continuously enhanced the awareness of responsibility of grass-roots units, strengthened self-management, and fulfilled the responsibilities of grass-roots units.
- Strengthening the construction of the HSE supervision team. Each regional (professional) company set up a HSE inspection brigade with HSE supervision stations established, and the construction project department staffed with full-time (part-time) HSE managerial personnel, and allogeneic supervision personnel quartered at drilling, overhaul, geophysical prospecting and other on-site works, to promote the fulfillment of HSE responsibilities.

Safety Awareness Training

The Company attached great importance to cultivate employees' safety awareness, and strengthened security infrastructure management by enhancing employees' safety awareness. The Company continuously promoted the effectiveness of HSSE training. The Company established the HSSE training course, used practical or simulation training bases, organized technical personnel to carry out professional teaching, and increased practical training to improve the staff's ability and quality. The Company made safety training assessment linked with job promotion to achieve the result that all employees were certified to work. At the same time, the Company also actively explored using WeChat platform or APPs to conduct HSSE training and other training methods, expanding training methods by leveraging information technology. Besides, the Company constantly revised and improved the bank questions that grass-roots employee should know to meet the needs of the grassroots posts of various professions, and seriously conducted tests for every inspection, so as to improve the safety production skills of employees.

In addition, the Company continued to promote the construction of safety culture and emphasized the people-oriented concept. The Company carried out in-depth employee safety education and publicity activities such as “work safety month” and “work safety long march”, promoted safety experience sharing and held warning forums to raise the awareness of safety and alert for all employees. In 2018, the Company carried out 1,100 safety-related presentations, 1,690 lectures by experts and staff, 136 safety propaganda, 358 warning accident cases watches and 1,551 emergency drills.

On-site Safety Management

Good on-site safety management is inseparable from the standardization of safety control procedures. The Company continuously promoted on-site management at the grassroots level, emphasized the standardization of process management and control, and carefully carried out the “Three Actions” (safety-raising actions on the construction site, strengthening actions of “three basic” safety work focusing on teams and safety management actions in high-risk operations) for work safety. The Company paid close attention to the safety work focusing on teams and sites, promoted the standardization of on-site safety management, and increased supervision and inspection to reduce HSE risk at work site.

The Company has continuously standardized on-site safety management by adopting a series of measures, including: to implement the permit-to-work management system, and organize centralized training for approvers and safety watchers to ensure 100% employment with certificates; to promote the implementation of preventive measures, carry out safety special investigations and timely rectify project problems on site; to set up a safety video monitoring system to achieve 100% coverage in operational drilling, operation teams and key locations; and to deepen the HSE allogeneic supervision, constantly optimize the management and operation mode of allogeneic supervision, carry out mutual evaluation of grassroots posts, and improve the effectiveness of supervision.

In 2018, on the basis of implementing the permit-to-work management system, promoting the implementation of preventive measures, setting up a safety video monitoring system and deepening HSE allogeneic supervision, the Company continued to promote the standardization of safety risk management and control, issued fire safety management and control measures through convening a special meeting on safety supervision and rectification, and implemented prevention and control responsibilities, measures and requirements for major risks occurring in well control and hydrogen sulfide, sea (water), radioactive source warehouse, civil explosives warehouse, and public safety through quarterly release of major safety risk lists.



Emergency Management

The Company strictly abided by the *Law of the People's Republic of China on Work Safety*, the *Law of the People's Republic of China on Emergency Response* and other laws and regulations, and established the emergency management command system in accordance with CPC's "*Emergency Management Regulations of China Petroleum and Chemical Corporation*" and other management measures to continuously promote the standardization of on-site emergency procedures. By decomposing the functions and responsibilities of each post, and producing and distributing post emergency dispatch cards, the Company made units to fulfill their responsibility. At the same time, the Company organized and conducted regular emergency training and drills, focusing on practical drills such as well control emergency drills and hydrogen sulfide prevention drills to enhance grassroots emergency response capabilities and strengthen on-site emergency management. It adhered to the principle of "seeking truth from facts and respecting science" in the investigation and tackling of safety accidents, classified accidents into different categories and levels, investigated the responsibility of related personnel and imposed severe punishment according to the principles of "those in charge shall be responsible," "Party departments and administrative departments sharing responsibility" and "four not to be missed".

Operation Compliance

Operation Compliance is the foundation for the Company's steady development. The Company consciously operated in accordance with national laws and regulations, paid taxes in a timely manner, and earnestly fulfilled the social responsibilities of a SOE. In

terms of quality management, the Company regards quality as one of the core contents of corporate culture, and has constantly consolidated the foundation of quality management. In terms of construction of integrity, the Company conducted in-depth education, focused on construction of party conduct and anti-corruption work, and continued to strengthen the fulfillment of responsibilities. In terms of intellectual property protection and information security, the Company respected and protected the intellectual property rights of companies and others, and resolutely prohibited the leak of information of customers and suppliers. In terms of supply chain management, the Company has established a sound supplier management system to strengthen supplier appraisal and evaluation. At the same time, the Company actively improved the feedback mechanism to timely reflect the problems in production and operation and solve them efficiently, and promoted the sustainable development of enterprises.

Quality Control

The Company is committed to becoming a world-class integrated international petroleum engineering technology service provider. With good service quality, differentiated market positioning and cost advantages, the Company provides petroleum engineering services for national oil companies and well-known multinational companies in the oil and gas industry in many countries, with its popularity increasing rapidly. The Company has always adhered to the quality policy of “quality always one step ahead”, constantly consolidated the foundation of quality management, and paid close attention to the quality of project construction and the quality of procured material, providing a solid quality guarantee for the Company to deepen reform and improve quality and efficiency.

In 2018, the Company revised the *Quality Management Measures of Sinopec Oilfield Service Corporation*, continued to implement the *Implementation Rules for Awards for the Selection of Outstanding Construction Projects of Sinopec Oilfield Service Corporation* and other rules and regulations, constantly improved the quality management system, conducted quality management system inspection, and continuously improved the effectiveness of the quality management system. At the same time, the Company continued to strengthen the quality control and on-site supervision of petroleum engineering projects and the whole process of product production, held technical supervision work meetings, organized standard self-examination and self-correction activities, and conducted various forms of quality activities such as customer visits, quality accident analysis and research, special seminars and experience exchanges to continue to improve the quality of service.

In order to better serve customers, the Company has established a sound feedback mechanism to receive customer feedback, handle complaints and suggestions in a timely manner, and manage and control the entire process; established a production scheduling system to solve the problem in the service; established a market information management system to regularly receive feedback and pay return visits or visits to customers within the system and thus form a relatively comprehensive after-sales service mechanism; established a supervision system to investigate and verify the violations reported by the relevant units, investigate the responsibility of the relevant units, and punish them according to regulations, and incorporate the indicator into the annual assessment, achieving closed-loop management of problems.

The Company strived to provide first-class quality and service to customers, actively carried out “Quality Day” and “Quality Month” activities, improved the quality awareness of all employees, and took "focusing on quality improvement and building a country with good-quality products" as the topic to create a good atmosphere that all members pay attention to quality and value quality.

Quality Improvement Case 1: Technological competition

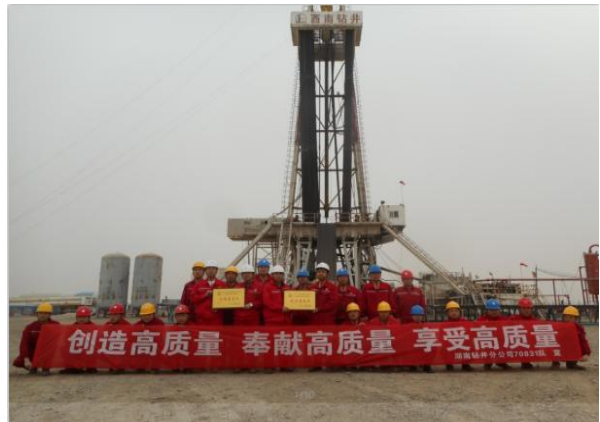
In September 2018, the Company successfully held the first professional technological competition for downhole operation service. The competition included four business technology competitions, namely, oil and gas test, fracture acidizing, overhaul and coiled tubing. The competition enhanced the skills of employees and promoted the working attitude of pursuing excellence.



Technical competition site

Quality Improvement Case 2: Quality Day activity

During the Quality Day, all units of the Company actively carried out quality seminars and on-site visits. A series of activities made all employees pay more attention to and attach more importance to quality and thus consolidated their awareness of putting quality first.



Quality Day activities

Construction of Integrity

The Company attaches great importance to the construction of integrity, strictly abides by the Audit Law of the People's Republic of China and the Provisions on Rules on Integrity of Executives of State-Owned Enterprises and other relevant laws and regulations, and formulated the *Implementation Measures for the Performance Evaluation of the Members of the Discipline Inspection Committee of Sinopec Oilfield Service Corporation*, *Implementation Measures for the Performance Evaluation of the Deputy Secretary of the Discipline Inspection Committee of Sinopec Oilfield Service Corporation* and other relevant laws and regulations, which clarify the duties and tasks of leaders and cadres, strengthen disciplines execution and accountability, actively promote the building of a clean party, continuously strengthen the implementation of responsibilities, and carry out integrity education, increase supervision, and build a clean enterprise. The Company has established joint conference system of the Party conduct construction and anti-corruption supervision, set up a multi-channel and multi-form supervision mechanism, urged all localities to strictly implement the main responsibility and supervision responsibility, and signed *Letters of Responsibility for the Construction of Party Conduct and Integrity* at each level to carried out the inspection and assessment of responsibility fulfillment and continuously strengthen the supervision and inspection of employees' violations, thereby more effectively preventing employees from corruption, bribery, fraud and other misconducts.

At the same time, the Company carried out in-depth anti-corruption education to promote the anti-corruption awareness of all employees. The Company organized the anti-corruption education month campaign with the theme of “firmly addressing formalism, bureaucratism, hedonism and extravagance, and continuous changing undesirable work habits”, compiled anti-corruption education learning materials and special party materials, organized lectures on prevention of duty crimes, and urged regional (professional) companies to solidly carry out study and education activities, and teach the anti-corruption class for all trainees of middle and senior project manager training classes and market

development management personnel training classes. The Company prevented corruption and promote the integrity construction through face-to-face talks and early warnings.

Intellectual Property Protection

The Company continued to implement and strengthen the intellectual property management system, including avoiding infringement of intellectual property rights and protecting its own intellectual property rights, and strictly abiding by laws and regulations such as the *Anti-Unfair Competition Law of the People's Republic of China*, *Trademark Law of the People's Republic of China*, *Patent Law of the People's Republic of China* and the *Implementing Rules of the Patent Law of the People's Republic of China* . Based on its business characteristics, the Company established rules and regulations in respect of intellectual property such as the Administrative Measures on Intellectual Property of Sinopec Oilfield Service Corporation (Pilot), which specify the classifications of intellectual property, clarify the responsibilities of each level of employees and establish measures for supervision, rewards and punishment. In the process of external publicity, the Company abides by the Advertising Law of the People's Republic of China and other relevant laws and regulations, safeguards its own legitimate rights and interests, and standardizes the use of brand image and external promotion.

In order to strengthen the popularization of intellectual property rights, the company organized the World Intellectual Property Day and the Company's intellectual property publicity activity in 2018 and held special lectures on intellectual property rights in various places to popularize national intellectual property laws, regulations and basic knowledge, and raise employees' awareness of intellectual property protection.

In addition, the Company strongly encouraged employees to invent and create, and actively promote the application of invention and innovations, so as to continuously improve the Company's innovation level and market competitiveness. In 2018, the number of patents and authorized patents filed by the Company increased compared with the previous year. The Company also undertook the intellectual property strategy research project “carbon dioxide capture, utilization and storage”, proposed the patent declaration direction and strategic layout, and actively implemented intellectual property protection work.

Patent applications and awards in 2018	The Company applied for 562 patents and was granted 465 patents.
	Jiangnan Petroleum Engineering Company was named as the third batch of innovative enterprises of Oilfield Service Corporation, while Zhongyuan Petroleum Engineering Company's “Modified Alkyl Glycoside Product R&D and Industrialization Technology Innovation Team” was named as the Outstanding Innovative Team of CPC.
	In 2018, “An offshore multi-directional oil drilling and servicing self-elevating platform” won the National Outstanding Patent Award. Six achievements won the winning prize of the first “Sinopec Cup” Innovation and Entrepreneurship Competition.

Information Security

Market information is the Company's foundation in conducting market activities. The Company strongly prohibits the leak of data and information of suppliers, partners and customers, strictly abides by the relevant laws and regulations of the *Anti-Unfair Competition Law of the People's Republic of China*, implements the rules and regulations of CPC, and adds confidentiality clauses in the Company's management regulations in accordance with its actual situation, requiring relevant units to report important information in a timely manner, clarifying the source and content of the information and strictly prohibiting information leakage. The Company will also conduct regular and irregular supervision and inspection on the confidentiality of confidential personnel. Once the relevant personnel are found to violate national laws and regulations, the Group's rules and regulations and the Company's management regulations, they will be severely punished.

Supply Chain Management

Supply chain management provides strong support for the Company's sustainable development. In 2018, the Company revised the *Measures for the Materials Supply Management of Oilfield Service Corporation*, *Measures for the Materials Purchase Management of Oilfield Service Corporation*, and *Measures for Materials Purchase and Resources Supply Management of Oilfield Service Corporation* and other relevant measures for management. Regional (professional) companies actively formulated and launched implementation rules and related regulations, established systems, and jointly improved the supply system of the Company. The Company has established a performance appraisal indicator system for the material supply management, which consists of quantitative, qualitative assessment indicators and binding assessment indicators. It ranks and informs the supply performance of all regional (professional) companies on a monthly basis. The Company adopts a prudent approach and strict standards in selecting suppliers, and considers their product quality, service level, business ethics, corporate reputation and the fulfillment of social responsibility when selecting them. On the basis of the management mechanism of supplier access, use, review, performance appraisal and exit, the Company promotes the application of the supplier's e-commerce website corporate credit certification and product quality evaluation, as well as the dynamic evaluation on suppliers' performance in procurement, to strengthen the management over suppliers. The Company also included the suppliers of external projects and overseas projects into the supply resource system for management, clarified the process of supplier qualification review, on-site inspection and evaluation, further standardized supplier management, and improved the quality of selected suppliers, so as to improve the material supply guarantee capability and prevent and control material supply risks.

The Company actively participates in the sharing of the compliant and efficient bidding platform of CPC, ensuring the openness, fairness and transparency of the steps of supplier admittance evaluation, bidding pre-qualification inspection, bidding participation, product and service provision and performance evaluation, and conducting centralized treatment and notification on the delinquent suppliers by sharing the evaluation and examination information of suppliers from CPC.

In order to further optimize the supply chain management system, the Company pushed forward the construction of information system steadily. The Company actively organized regional units to solve the application problems of the system online, coordinated the promotion of ERP material module construction, and constantly improved the system functions of equipment, increased the information statistics of equipment, and improved the information-based equipment management level. At the same time, the Company continued to strengthen the application of suppliers' e-commerce websites. The Company promotes the application of related party service indices evaluation criteria by continuing to promote corporate credit certification, product quality evaluation, and dynamic evaluation on supplier performance.

Environmental Management

The Company actively responds to the environmental protection requirements of the Chinese government and adheres to the core values of pursuing ecological civilization and green and low-carbon development by following relevant laws and regulations, such as the *Environmental Protection Law of the People's Republic of China*, the *Energy Conservation Law of the People's Republic of China*, the *Water Pollution Prevention Law of the People's Republic of China*, and the *Solid Waste Pollution Prevention Law of the People's Republic of China*, and the *Environmental Impact Assessment Law of the People's Republic of China*. The Company also strictly follows industry environmental standards such as the *Effluent Limitations for Pollutants from Offshore Petroleum Exploration and Production (GB4914-2008)* and the *Effluent Standard for Pollutants from Ship (GB3552-83)*, and implements the rules and regulations related to the environmental management of CPC. The Company constantly improved the environmental protection system, implemented environmental protection measures, paid environmental protection taxes in compliance with laws and regulations, and implemented environmental protection and pollution prevention measures.

The Company incorporated environmental protection, pollution prevention and clean production into various HSE inspection categories, and conducted unified inspection and unified assessment. All units strengthened on-site supervision and focused on implementing anti-leakage, anti-diffusion and anti-lost measures at the production site. The Company adopted a series of measures for environmental protection during its course of compliance operation, the details were as follows:

- Pushed forward clean production by using clean energy and resources and promoting the application of clean production technologies and equipment. Continued to carry out clean production work, put duties of various departments into place, establish a long-term effective mechanism, such that clean production examination was carried out on schedule, and inspection and acceptance of clean production was reported.
- Established an information submission mechanism, under which, each unit carried out environmental monitoring and environmental statistics according to the status of pollutants production and emission, and the relevant information was submitted to the local competent administrative department of environmental protection, relevant management department of the landlords and the HSE management department of the headquarters as required.

- Established an environmental emergency management system, improved the environmental emergency network, and prepared a contingency plan according to the risk evaluation results, amended it in a timely manner and made filings as required. Established an emergency rescue team and carried out regular training and drills based on the contingency plan.
- Carried out training on environmental protection and included propaganda and education on environmental protection in the relevant planning and projects of at all levels, so as to carry out training on environmental protection for all employees.

Due to the business nature of Sinopec Oilfield Service, the significant air emissions of the Company is GHG emissions, including carbon dioxide, methane and nitrous oxide, arising mainly from electricity and fuels derived from fossil fuels. In 2018, the total GHG emissions of Sinopec Oilfield Service is 2,464,973.92 tons^{1,2}. The GHG emissions per output value is 0.558 tons / RMB10,000, which is 0.002 tons / RMB10,000 lower than the value of 0.56 tons / RMB10,000 in 2017.

Use of Resources

The Company strictly observes environmental protection laws and regulations and energy conservation and emission reduction rules and requirements of the operation or operation host countries and regions, develops management measures like the *Management Rules on Energy Conservation of Sinopec Oilfield Service Corporation* to continue the clean production, energy conservation and emission reduction and carbon asset inspection and review as well as the “energy efficiency improvement” plan with tangible achievements made in the “ecological civilization construction” and the “green and low-carbon” strategies preliminarily.

In daily production and operation, the Company actively promotes green office and green commuting. In terms of electricity management, the Company strengthens supervision and management, eliminates waste, and requires employees to turn off lights when leaving office. In terms of water management, the Company tries every effort to conserve water and comprehensively uses water resources. In office paper, the Company encourages double-sided printing and reuse of office paper, to reduce the consumption of office supplies. In the management of car use, the Company makes overall arrangements, scientific scheduling, to reduce travel costs, conserves energy and reduces emissions. At the same time, the Company vigorously promotes video conferencing, not only improving the coverage and efficiency of the meeting, but also reducing travelling cost to meetings.

During the operation of projects, the Company strengthened the fundamental management on energy conservation and emission reduction, regulated process management in energy

¹ The disclosure scope of GHG emissions: Sinopec Oilfield Service Corporation headquarters and its subordinates' domestic projects.

² GHG emissions data is presented in carbon dioxide equivalent and is based on the “2015 Baseline Emission Factors for Regional Power Grids in China” issued by the National Development and Reform Commission of China, and the “2006 IPCC Guidelines for National Greenhouse Gas Inventories” issued by the Intergovernmental Panel on Climate Change (IPCC).

consumption and supply, consumption, statistics, analysis, etc., conducted efficiency monitoring on the energy utilization of major power equipment and systems, and checked and eliminated equipment with high energy consumption and low efficiency, achieving emission and carbon reduction through energy conservation at the source. At the same time, the Company implemented energy efficiency improvement projects such as grid powered drilling machines and electric pressure pry bars, reinforced research and development on energy conservation and emission reduction technologies, such as electric pressure pry bars, internal combustion engines using new energy, as well as promoted the application of new technologies and equipment such as using gas and electricity instead of oil, the recovery of waste heat and pressure, etc., continuously promoting energy conservation and emission reduction in the production process by the use of advanced technology and equipment.

In 2018, the Company used grid powered drilling machines in 452 wells with footage reached of 9,128,715,900 m, which saved 153,470 tons of diesel oil, and used a total of 5.91 million cubic meters of industrial water. The comprehensive energy consumption per industrial production value is 0.278 tons of standard coal / RMB10,000, which is 0.001 tons of standard coal / RMB10,000 or 0.4% lower than the actual average value of 0.279 tons of standard coal / RMB10,000 in 2017.

Energy and Resources Consumption (Scope: Sinopec Oilfield Service Corporation headquarters and its subordinates' domestic projects)

Indicators	2018	2017
Total energy consumption (MWh)	7,190,339.93	5,531,317.93
Direct energy consumption (MWh)	6,154,897.31	4,755,661.2
Petrol	238,686.33	220,269.85
Diesel	5,349,058.29	4,067,193.31
Natural gas	386,268.23	240,129.79
Coal	140,173.09	187,695.03
Liquefied petroleum gas	2,101.23	1,911.29
Raw petroleum	13,733.44	7,722.82
Other Energy	24,876.70	30,739.11
Indirect energy consumption (MWh)	1,035,442.62	775,656.73
Electricity	812,487.50	569,518.06
Heating Power	222,955.12	206,138.67
The industrial production comprehensive energy consumption (Tons of standard coal /RMB 10000)	0.278	0.279

Notes:

1 Consolidated energy consumption is calculated on the basis of the consumption of power and petroleum and the conversion factor set out in the *General Principles of Consolidated Energy Consumption Calculation (GB/T 2589-2008) of the People's Republic of China*.

2 Other energy refers to fossil fuels, such as waste oil converted from fossil fuels.

3 Data for packaging materials is not applicable to Sinopec Oilfield Service.

Clean Production

The Company strictly implemented environmental laws and regulations, as well as the effluent standards of project host countries and international conventions. It established relevant systems such as the *Management Rules on Clean Production of Sinopec Oilfield*

Service Corporation and the Management Rules on Pollution Prevention of Sinopec Oilfield Service Corporation. The Company requires the hazardous waste to be delivered to units with disposition qualification for recycling and disposal, standardizes and improves the management records of pollutant generation, treatment and destination, promotes the inspection work of clean production, organizes training related to clean production, and carries out the pilot demonstration team construction of clean production. The Company will conduct clean production inspection and acceptance for qualified units.

Based on the work targets of “energy conservation, consumption reduction, pollution reduction and efficiency enhancement”, the Company focused on the transformation and application of new technologies and equipment, actively promoted advanced technologies such as grid powered drilling machines, dual-fuel engines, energy-saving variable frequency motors and environmental degradable mud, thereby reducing energy consumption and pollutant emission. The Company continued to promote the application of treatment technology “waste drilling mud being integrated with the drill instead of on the ground”, and added 21 sets of equipment for the treatment of waste drilling mud being in the drill instead of on the ground. The Company further explored methods to achieve the decontamination and utilization of cuttings, maximized the comprehensive utilization of cuttings, and directly utilized the cuttings generated during the drilling stage. The cuttings generated during the drilling stage were transported to the centralized treatment station for disposal after deliquoring at the site.

At present, the waste types involved in Sinopec Oilfield Service’s operations mainly include oil-base cuttings and solid waste, among which the oil-base drilling cuttings are hazardous wastes. In 2018, the oil-base cuttings handled by the Company were 47,600 tons, which were processed by thermal analysis and other processes. The solid waste handled by the Company was 845,000 tons, which underwent harmless treatment or integrated utilization. The Company disposed of 398,000 cubic meters of drilling and working wastewater in compliance with the regulations, and pre-disposed and recycled on site or entrusted others to conduct concentrated sewage treatment of 274,000 cubic meters of domestic sewage.

Caring for the Employees

The Company has always regarded employee care as its foundation for development and firmly believes that employees are the most valuable asset of a company. The Company knows the protecting the legitimate rights and interests of employees, and building a harmonious enterprise is the key to the Company's sustainable development and the driving force for the growth of the Company.

Employment Management

The Company strictly conforms to the *Labor Law of the People's Republic of China, Labor Contract Law of the People's Republic of China, Special Rules on the Labor Protection of Female Employees, the Law of the People's Republic of China on Prevention and Control of Occupational Disease and the Provisions on the Supervision and Administration of Occupational Health in the Workplace*, and other relevant laws and regulations, and formulated a series of relevant rules and regulations according to law. The Company treats

all the employees of different nationalities, races, genders, religious beliefs and cultural backgrounds fairly, signs labor contracts with employees under the principle of legality, equality, free will, unanimity through consultation, honesty and credibility, and improves labor dispatching system and salary management system in order to protect the rights and welfare of outsourcing labor. The Company carefully implemented the *Special Rules on the Labor Protection of Female Employees* to protect various rights and welfare of female employees in pregnancy, perinatal period or lactation period. It is strictly forbidden to lower the wage of female employees, dismiss them and terminate labor contract or employment contract with them because of pregnancy, childbirth or lactation, and opposes any discrimination based on factors such as gender, race and belief. In 2018, the Company had no incidents that seriously violated any relevant human resources management laws and regulations, and there was no employment of child labor and forced labor.

Salary and Welfare

The Company expects to continuously improve the sense of belonging of employees by providing competitive salary and welfare. On one hand, the Company continuously improves its income distribution management and has established a quite competitive salary and welfare system. Through the strict implementation of the *Management Measures for Linking Total Wages to the Economic Benefits System*, the Company strengthened the regulation of total wages and achieved the evaluation of linking total wages to the economic benefits, standardized the spending of the subsidies and allowances, and established a market-based personnel labor distribution mechanism to protect employees' labor rights and mobilize employees' work enthusiasm. On the other hand, the Company encourages and organizes various forms of employee activities, so that employees can relieve stress after work, combine exertion and rest, and feel happier physically and mentally, thereby enhancing employees' happiness and creating a warm and harmonious working environment.

In accordance with national and local regulations, the Company participates in the basic social insurance co-ordination of pension, medical care, work injury, unemployment insurances, etc., pays social insurance fees on time and in full, and establishes a unified enterprise annuity system to provide employees with perfect welfare and insurance. Regarding the remuneration and welfare of foreign employees, the overseas project department strictly abides by the relevant laws and regulations of the host country like labor law and implements them after going to the local labor department for record and approval. The benefits set by the Company and its subordinate units also include: annual health checkups for all employees, employee psychological counseling services, work allowances for foreigners, and field allowances. The Company guarantees the right of employees to work and take rest and vacation in strict accordance with the laws and regulations of the country and region where the project is operated.

Development and Training

The Company firmly establishes the concept of talent-driven development, provides multi-channel promotion opportunities and organizes diversified training activities to promote the personal growth and career development of employees, and provide more powerful talent support for the Company's development.

The Company improves and perfects the talent development channel, promotes outstanding talents to stand out, and stimulates their innovation vitality. The Company makes overall efforts to strengthen the construction of the talent team, organizes all employees to compete for posts, and conducts competitive selection for cadres at middle level. The business posts are competitively employed, and some talents who know business well and are good at operating are selected from the grassroots level.

The Company pursues perfection in training, continuously improves the overall quality of the talent team, and strengthens targeted training for all types of talents. In terms of management personnel training, we strengthen market development and project profitability. In terms of engineering and technical personnel training, we continuously improve technical service capabilities. In terms of international personnel training, we continuously improve our ability to expand overseas markets. In the training of employees in headquarters, we improve and strengthen their ability to perform duties.

In 2018, the Company focused on strengthening the leadership team and cadre team building to comprehensively improve their leadership. The Company carried out in-depth training on operation and management knowledge for leaders, and focused on improving the management awareness of leaders. At the same time, we actively carried out project management talent training, and strived to cultivate a team of professional project managers who know technology, are good at operation and management to improve their capabilities to create incomes from projects and to manage projects. At the same time, we continued to innovate new ways for professionals to become talents, accelerated the growth of professional and technical personnel, and vigorously promoted talent cultivation through various forms such as off-the-job training, practice training, job exchange, mentoring, and technical competitions.



Case 1: Training Course of Studying and Implementing the Spirit of the 19th Party Congress for Middle-level Cadres

The Company opened a training course of studying and implementing the spirit of the 19th Party Congress for middle-level cadres. The training course consisted of 2 sessions, 5 days in each session, and a total of 134 people participated in the training. The training further

strengthened the political thinking and capacity building of the middle-level cadres, and received good response.



Case 2: The Seventh Key Position Training Course for Overseas Staff of Sinopec

The Company opened the seventh key position training course for overseas staff of Sinopec, and invited 5 foreign employees to participate in to strengthen the building of overseas employees' team and promote the development of international business.



Case 3: Opening a Training Course for the Headquarters and Business Units in Beijing

The Company held a training course for the headquarters and business units in Beijing, and strived to build “four-type” units. The training course was held in two sessions, 5 days in each session and a total of 85 people participated in the training. This training effectively improved the leadership level and overall quality of employees.



Health and Safety

We pay attention to the health and safety of our employees and are committed to providing a good working environment for our employees. The Company strictly abides by the *Safety Production Law of the People's Republic of China*, *Law of the People's Republic of China on Prevention and Control of Occupational Disease*, *Special Equipment Safety Law of the People's Republic of China* and other laws and regulations and industry standards to protect the physical and mental health of employees.

The Company has established a sound management network to regulate the health management of employees and adopted a series of measures to protect the health of employees. The Company clearly requires that facilities for occupational hazard prevention and protection in construction projects must be designed, constructed, commenced production and utilization simultaneously with the main part of the projects, and personnel for occupational health management with regular training to enhance their capabilities should be provided. The Company compiled the Technical Specifications for Occupational Health in the Petroleum Engineering Business Section, regularly carried out special inspections and treatment on noise and dust exceeding the standard, verification of occupational diseases, and statistics on work-related injuries, assessed employees' health, and implemented employee health interventions and conducted psychological counseling, to ensure the physical and mental health of employees. We also specified the standards and requirements for the safety and industrial costume of field operators, rationally arranged the use of safe production costs and security funds, upgraded safety protection equipment, took safety testing and other technical measures, and carried out research on health

protection of high altitude drilling workers to improve the level of safety protection technology.

In addition, Sinopec Oilfield Service organizes and strengthens various contingency plan training and drills irregularly, strictly follows requirements during various emergency drills. It also summarizes the evaluation seriously for problems found in each drill, so as to practically enhance the emergency response capability and level of all employees, and thus ensure the health and safety of employees.

Community Investment

Holding the concept of Honesty and Integrity, Cooperation and Mutual Benefits and Requite the Locality, the Company takes the initiative to undertake our corporate social responsibilities during its development. We continuously strengthen the employee volunteer team to construct infrastructure projects to improve local people's livelihood, actively participate in public welfare and charity, provide assistance in specified areas, organize charitable donations, provide education aids and promote local employment. We take those practical actions to give back to the society.

Learning from Lei Feng volunteer activities

On 7 March 2018, under the theme of “love gathering strength and bringing hope”, the Company organized more than 20 volunteers to visit the left-behind children. They imparted Sinopec's corporate culture and oil mining application knowledge to children, played English games with children, formed mock courts to carry out education concerning the legal system, communicated with children patiently and meticulously, and listened to their dreams and voices, which makes up for their long-term and frequent absence of love from parents, and inspires children to have motivation and confidence to love learning and life.



Mongolian project department cleaned up garbage for free

While developing its business, the Company's Mongolian project department actively carried out public welfare undertakings and activities that benefit local economic and social development and bring well-being to local residents, which helps to better handle the relations with the Mongolian government and residents. During the operation of projects, the Company provided excavators, bulldozer machinery and drivers for free to clear the garbage dumps for local government that had not been cleaned for ten years. This work has not only been recognized by the local government, but also won the unanimous praise of the local people.

Turkish project department consoled local workers during Ramadan

Ramadan is the most auspicious and noble month for Muslims. The Company's Turkish project department respects local customs, follows all the taboos, and actively integrates into the local culture. During Ramadan, the deputy manager of the Turkish project department visited the off-duty local staff at home one by one and got a deep understanding of the family status of the local workers. He expressed his heartfelt gratitude to the Turkish local workers for their contributions to the development of the Turkish project in the past two years. The families of local workers were very hospitable to the visitors, actively asked for a group photo, and gave them the local specialties in return. The harmonious exchanges between the two sides have narrowed the gap between Chinese and Turkish culture and have been well received by the local government and people.



Tree planting activity

On 11 March 2018, the Company's volunteers carried out a public welfare tree planting activity with the theme of "Adding color to clear water and blue sky and refueling for a better life". A total of 26 people participated in the event, and they have planted more than 30 trees for free for Jiagou Village, Yaoqiao Town, Zhenjiang New District, Jiangsu Province. This tree planting activity has enabled the Company to actively integrate into the local community and fulfill the responsibility of a company to protect environment.



Internal activities for the employees

The Company keeps caring for employees, encourages employees to combine exertion and rest, and enriches the after-work activities of employees by organizing a series of internal activities for the employees. In 2018, the Company held a staff sports meeting, and set up 8 competition items in six categories: tug-of-war, table tennis, badminton, billiards, chess and long-distance running. In the sports meeting, the majority of employees enthusiastically participated in the competitions, showing a good spirit of aggressiveness and striving to make progress. The event has brought the employees closer, strengthening the Company's cohesion and improving employees' happiness.



Appendix : Environmental, Social and Governance Reporting Guide

Issues	Description of Issues	Corresponded chapter in the report
Subject Area A. Environmental		
Aspect A1: Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Environmental Management
KPI A1.1	The types of emissions and respective emission data.	Environmental Management
KPI A1.2	Greenhouse gas emissions total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Management
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Management – Clean Production
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Management – Clean Production
KPI A1.5	Description of measures to mitigate emissions and results achieved.	Environmental Management – Clean Production
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Environmental Management – Clean Production
Aspect A2: Use of Resources		
General disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Environmental Management – Use of Resources
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Environmental Management – Use of Resources
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Environmental Management – Use of Resources
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Environmental Management – Use of Resources
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Environmental Management – Use of Resources
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable

Aspect A3: The Environment and Natural Resources		
General disclosure	Policies on minimising the issuer’s significant impact on the environment and natural resources.	Environmental Management – Clean Production
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Environmental Management – Clean Production
Subject Area B. Social		
Employment and Labour Practices		
Aspect B1: Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Caring for Employees - Employment Management
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	—
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	—
Aspect B2: Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Work Safety, Caring for Employees - Health and Safety
KPI B2.1	Number and rate of work-related fatalities.	—
KPI B2.2	Lost days due to work injury.	—
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Work Safety
Aspect B3: Development and Training		
General disclosure	Policies on improving employees’ knowledge and skills for discharging duties at work. Description of training activities.	Caring for Employees – Development and Training
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	—
KPI B3.2	The average training hours completed per employee by gender and employee category.	—
Aspect B4: Labour Standards		

General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Work Safety – Employment Management
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	—
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	—
Operating Practices		
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Operation Compliance - Supply Chain Management
KPI B5.1	Number of suppliers by geographical region.	—
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	—
Aspect B6: Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Operation Compliance – Quality Control
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	—
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Operation Compliance - Intellectual Property Protection
KPI B6.4	Description of quality assurance process and recall procedures.	—
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Operation Compliance - Information Security

Aspect B7: Anti-corruption		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Operation Compliance – Construction of Integrity
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	—
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Operation Compliance – Construction of Integrity
Community		
Aspect B8: Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Community Investment
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Community Investment
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Community Investment