



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

**2019 Environmental, Social, and
Governance (ESG) Report**

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About the Report

Scope of the Report

The 2019 Environmental, Social and Governance(ESG) Report (hereinafter referred to as "the Report") of Sinopec Oilfield Service Corporation (hereinafter referred to as "Sinopec Oilfield Service" or the "Company" or "we") aims to give an objective and fair view of the important performance of environmental, social, governance and other aspects of the Company. For details of the governance part, please read in conjunction with the section “Corporate Governance” in Sinopec Oilfield Service Corporation Annual Report 2019 to help readers understand the Company more comprehensively. Unless otherwise specified, the scope of the Report includes Sinopec Oilfield Service Corporation and its subsidiaries, with the reporting period from 1 January 2019 to 31 December 2019.

Explanation of the Report

The Report has been prepared in accordance with 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”), 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’” and the “Guidelines on Environmental Information Disclosure by Companies Listed on Shanghai Stock Exchange”.

The information and cases in the Report are extracted from the original records of actual operations of Sinopec Oilfield Service Corporation and its entities. The Report is published in three languages: Simplified Chinese, Traditional Chinese and English. In case of discrepancy between the texts, the simplified Chinese version shall prevail. The electronic version of the Report can be read on and downloaded from the official website of Sinopec Oilfield Service, the official website of the Shanghai Stock Exchange and the website of the Hong Kong Stock Exchange.

Confirmation and Approval

The Report was approved by the Board on 24 March 2020 upon confirmation by the management.

ESG Management System

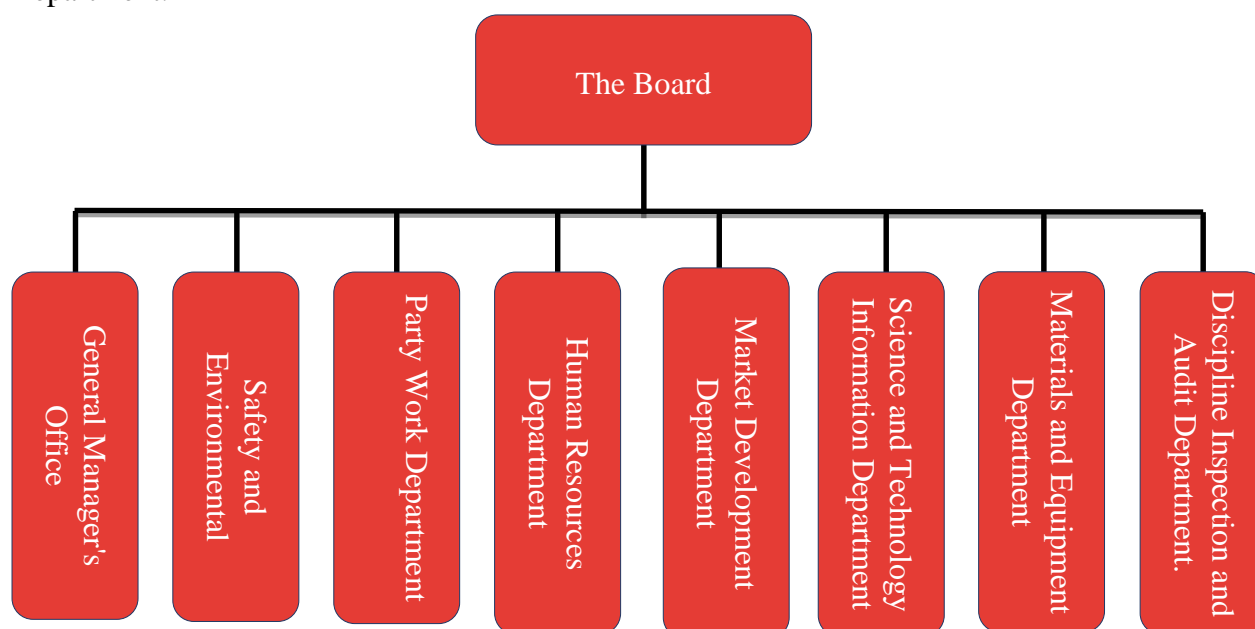
ESG Concept

As a large integrated professional company of oil and gas engineering and technology service in China, the Company upholds the development concept of “leading technology for value creation and supporting oil and gas provision to serve the customers” and implemented the core values of “being people-oriented, and pursuing good quality, innovation and win-win results”, striving for creating a full industry chain petroleum engineering and technology service platform while making unremitting efforts to achieve the goal of building a world-class integrated oil service company.

The Company adheres to the corporate mission of “refueling for a better life” and fulfils its social responsibilities in real earnest. The Company attaches importance to production safety, strengthens compliance operations, practices low-carbon operations, provides attentive care to employees, supports public welfare undertakings, elaborated and contributed to regional economic development, all of which driving the harmonious and sustainable development among the enterprise, the employees, the community and the environment.

ESG Management Structure

In order to carry out the Company's development philosophy and promote the implementation of the ESG management work, the Board of the Company is responsible for formulating the overall ESG strategy and making decisions on major issues in ESG management. Meanwhile, the Company relies on the current management organization structure to sort out and clarify the management functions of all ESG-related departments, and conducts comprehensive management of all aspects of ESG through the General Manager's Office, Safety and Environmental Protection Department, Party Work Department, Human Resources Department, Market Development Department, Science and Technology Information Department, Materials and Equipment Department and the Discipline Inspection and Audit Department.



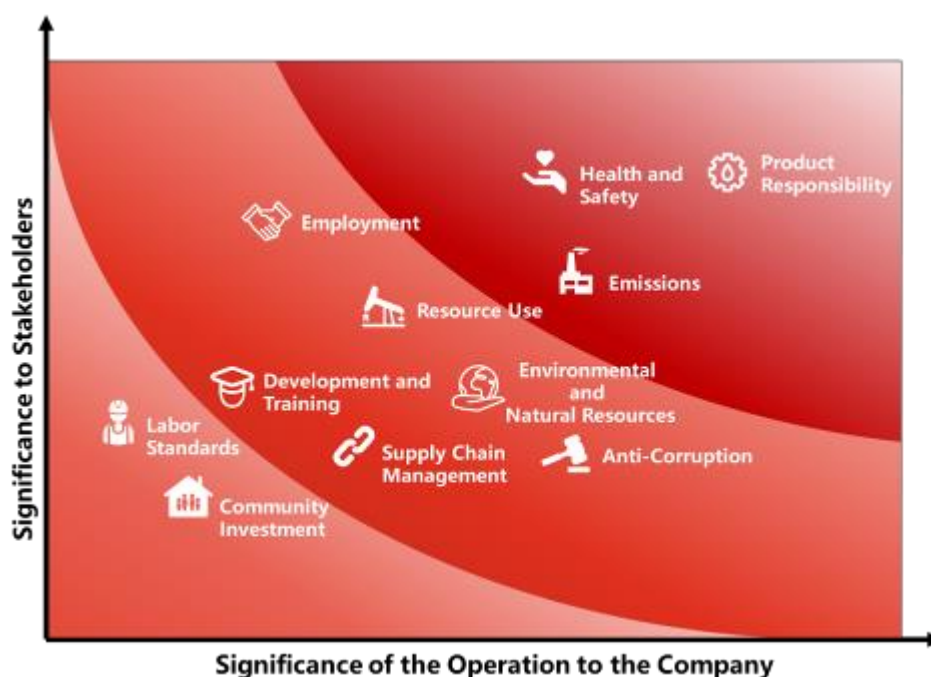
Communications with Stakeholders and Assessment of Importance of Key Issues

Depending on the characteristics of the overall business and operating activities, the Company has identified key stakeholders including shareholders and the other investors, governments and regulators, employees, suppliers, customers, partners, communities and the general public. In the process of ESG management, the Company constantly improves the communication mechanism to ensure that the expectations and appeals of stakeholders can be effectively communicated in a timely manner.

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 other investors	Shareholders' meeting, Periodical report, Interim report	<ul style="list-style-type: none"> • Profitability • Operating strategy • 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 actual operations, we have summarized the focuses of stakeholders on ESG management of the Company. Key ESG topics identified in 2019 include “health and safety”, “product responsibility” and “emissions”, while related topics include “environmental and natural resources”, “resource

use”, “employment”, “development and training”, “labour standards”, “supply chain management”, “anti-corruption” and “community investment”. We will respond to the contents of each issue respectively in the Report.



Occupational Health and Safety Assurance

The Company has attached great importance to health and safety management. We strictly complied with requirements of the *Safety Production Law of the People's Republic of China*, the *Law of the People's Republic of China on Prevention and Control of Occupational Disease*, the *Special Equipment Safety Law of the People's Republic of China* and other laws and regulations. On the basis of the “safety first, prevention first and comprehensive management and control” policy, the Company has continuously strengthened construction of the Health, Safety, Security and Environment (HSSE) management system, focused on fulfilment of work safety responsibility, strengthened supervision team building, implemented on-site risk prevention and control, enhanced employee health management and emphasized improvement in work safety management, all of which ensure stabilized and improved work safety of the Company throughout the year.

Management System Assurance

To further ensure the effective operation of the HSSE management system, the Company clarified the main points for implementing the HSSE management system, further refined and improved the HSSE management system according to the business characteristics of all segments. In 2019, on the basis of such rules as the *Administrative Rules on Supervision of Safety and Environmental Protection* and the *HSE¹¹ Management Manual*), the Company further formulated and implemented the *Guides on Regulating Grassroots Units HSSE Work*

¹ HSE refers to Health, Safety and Environment.

Records, the Interim Management Regulations on Construction Site Closure and Staff Departures, the Administrative Rules on Stationing HSE Separated Supervision Personnel in Drilling (Overhaul) Construction Sites, and revised management measures such as the Administrative Rules on Assessment of Overseas Public Safety Risks to strengthen on-site risk management, on-site operations and on-site HSSE supervision.

The Company also strengthened the standardization of grassroots operations and enhanced the safety management leading and penetrating capabilities through developing a management improvement solution centered on “grassroots construction, intrinsic safety, process system, performance appraisal, and accountability”.

While improving the health and safety system and structure, the Company’s tasks relating to the health and safety management system this year also include the following:

- Realizing effective operation of the HSSE sub-committees. During the year, the HSSE sub-committees of the Company and its regional (professional) companies carried out key tasks such as risk identification, professional training and special inspections through improving the rules and regulations, effectively strengthening professional supervision and achieving effective operation of the health and safety management system.
- 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.
- Promoting the construction of the HSE supervision team. Each regional (professional) company set up a HSE inspection brigade, each professional operation unit established HSE supervision stations, and the construction project department staffed with full-time (part-time) HSE managerial personnel, while supervision personnel were quartered at drilling, overhaul, geophysical prospecting and other on-site works, to enhance on-site HSE supervision and inspection to promote the fulfillment of responsibilities of HSE units.

Work Safety Management

The Company attaches great importance to safety management, firmly establishes the warning line awareness and base line thinking of work safety. We tries our best to avoid the happening of safety accidents by strengthening on-site safety management, implementing safety education, intensive safety technology research and enhancing emergency management.

On-site Safety Management

Good on-site safety management is inseparable from standardized safety control procedures. In 2019, the Company revised and implemented the HSSE management system step by step. We formulated 3 management rules such as *the Administrative Rules on Stationing HSE Separated Supervision Personnel in Drilling (Overhaul) Construction Sites*, and revised and strictly implemented plans such as *the Ten Measures on Strengthening the Safety Management of Direct Operation Segment*, *the Administrative Rules on Safety Scores of All Staff*, *the Regulations on HSSE Performance Evaluation*. Meanwhile, the Company further strengthened on-site management of grass-roots level operation, carried out on-site safety management improvement work and actively benchmarked on-site safety data with the Company's production safety indicators. The Company also implemented an operating permit system, organized centralized trainings for approvers and supervisors, and achieved 100% employment of employees with certificates.

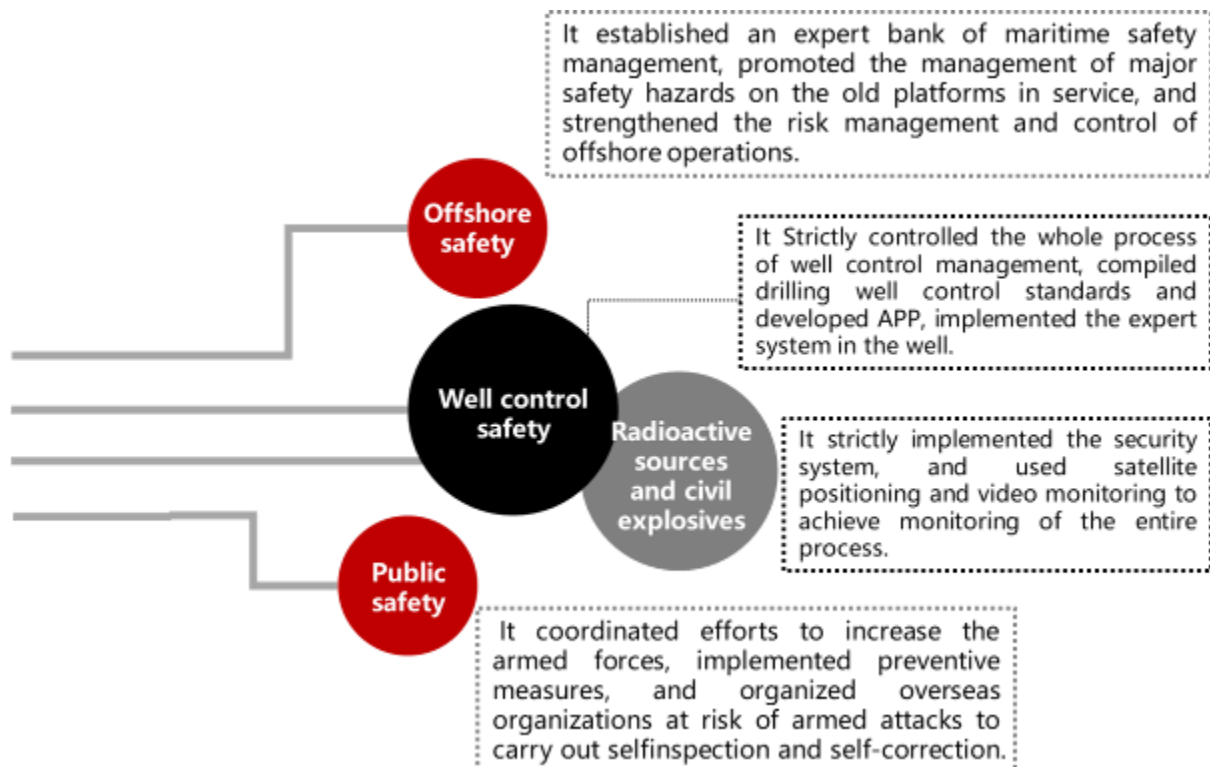
In 2019, the Company adopted a series of measures to strengthen on-site safety supervision and management, including:

- Constructing a production safety surveillance video real-time transmission system. We formulate *the Technical Specifications for Safety Video Surveillance System of Oilfield Enterprises* to regulate construction of video monitoring systems for on-site work safety of grassroots staff. Currently all regional (professional) companies have built initial production video monitoring platforms with real-time monitoring functions to facilitate on-site safety supervision. The platform enables technicians to obtain correct technical guidance for abnormal situations such as emergency rescue in time while improving the efficiency of safety management, which reduces risks of safety accidents.
- Strengthening on-site safety supervision and inspection. The Company organized "four no and two straightforward" supervision and inspection every month for timely discovery of on-site safety problems and ordering rectification. Meanwhile, the Company further deepened HSE separated supervision to constantly optimize the separated supervision management and operation, and carried out mutual evaluation and inspection for grass-roots posts to promote implementation of post responsibilities and improve the effectiveness of supervision.
- Strengthening the safety management of subcontractors. The Company strictly controlled procedures such as qualification review, personnel screening, training, supervision and assessment. Meanwhile, the Company strengthened the supervision, guidance and control of on-site safety of subcontractors, implemented measures such as penalties, revoking, blacklist system for violating suppliers. A total of 3,248 subcontractor construction sites were inspected throughout 2019, and 43 subcontractors who did not meet the Company's management requirements for work safety were blacklisted.



Video Monitoring platform of Shengli Southwest Drilling Company

During the year, the Company continued to strengthen safety risk management and control. We deployed safety management and control measures through convening a special meeting on safety supervision and rectification. We fulfilled 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. Meanwhile, with focus on on-site risk management and control, the Company further improved the protection function of safety facilities and raised the intrinsic safety level of on-site equipment. In addition, the Company raised a total of RMB1.11 billion as work safety expense and security funds to implement system rectification of hole cover plates, high-altitude border operations and two-story platforms etc. to further eliminate potential on-site safety hazards.



Implementing safety education

During the year, the Company continuously promoted construction of safety culture and strengthened safety infrastructure management. The Company attached great importance to the cultivation of employees' work safety capacity and work safety awareness. We enhanced employees' skills of work safety through safety trainings, and strengthened employees' safety awareness through publicizing of safety concepts.

The Company complied with regulations such as *the Administrative Measures on Work Safety Trainings* and *the Regulations on Safety Training of Production and Operation Units*, and implemented various methods such as centralized trainings, tutors leading apprentices, class lectures, post trainings, scenario simulations and skill competitions to enhance the skills of safety management, post operation and emergency response and prevention skills for all employees effectively. The Company held HSSE training courses, used practical or simulation training bases, organized technical personnel to carry out professional teaching, strengthened practical training, and carried out daily training such as shift training, shutdown training, rotation training, resumption training and post training to improve the staff's ability and quality. In 2019, the Company continued to strengthen the construction of practical training bases, put 16 training bases into operation in succession, and organized a total of 3,663 shift training throughout the year, training 95,000 person and a total of 152 hours of shift training per person (19 days), further implementing the practical training of first-line personnel at the grassroots level and promoting the effectiveness of HSSE training. The Company actively adopted online training methods such as WeChat platform or APP for HSSE training, and continuously revised and improved the knowledge base of grass-roots posts to meet the needs of various professional grass-roots posts. The Company also organized training courses for safety management personnel to further improve their safety management capabilities.

We strengthened safety assessment and implemented "compulsory examination for every inspection". During the work safety supervision and inspection, safety managers and key position staff were evaluated for safety knowledge and management capabilities. A total of 401 people were tested throughout the year to monitor employees to continuously improve work safety skills and safety management capabilities. Through comprehensive implementation of safety training assessment and promotion, we realized 100% employment with certificates. In 2019, Sinopec Group Company JSA (Job Safety Analysis) contest engineering plate finals, Petroleum Engineering Construction Company won the first place in the engineering plate, Shengli Petroleum Engineering Company, Zhongyuan Petroleum Engineering Company tied for the second place in the engineering plate specialty Grades.

The Company also adhered to the "people-oriented and safe development" philosophy, continuously promoted safety culture construction and carried out in-depth employee safety education and publicity activities such as "work safety month" and "work safety long march". In 2019, the Company carried out a total of 900 safety-related presentations, 1,200 lectures given by experts and staff, 126 safety propaganda, 538 warning accident cases watches and organized 3,551 emergency drills. Through sharing safety experience, warning seminars, etc., the safety warning awareness of all employees was enhanced.

Case: Training for Safety Management Personnel

In August 2019, the Company held the 2019 training course for safety management personnel at the Petrochemical Industry Management Cadre College. A total of 64 safety management personnel at all levels from various regional (professionals) companies participated in the training. In particular, in the special course of “Active benchmarking, tracking, creating, rectifying and improving to



provide support for the comprehensive and sustainable development of petroleum engineering”, the deputy general manager of the Company systematically interpreted the current status of work safety and analyzed the major difficulties of the Company’s safety management improvement and proposed specific requirements for safety management. The students organized seminar groups to discuss how to implement rules such as *the Ten Measures for Safety Management in Direct Operation Segments* in grassroots and summarized the effective plans.

Technologies for Strengthening Safety

The Company actively promoted safety technology projects, and encouraged all units to focus on hotspots, difficulties, doubts and bottlenecks of work safety and conduct research on safety technology. This year, we have successively carried out safety technology research projects such as *Research on Safety Distance Control for Seismic Exploration and Blasting Operations*, *Development on Safety Protection Devices of Mastheads for Anti-overload and Anti-overspeed*, and promoted the application of new equipment and technologies, such as intelligent pipe arrangement system of racking board and deep well drilling fluids vacuum deaerators actively. The Company also introduced the application of mature technologies such as overflow smart detection, electric fracturing skids, and controllable seismic sources. We have built a safe and intelligent monitoring and analysis platform, and use scientific and technological measures to ensure safe production.

Case: Safety Protection Devices for Lifting and Placing Derricks of Mechanical Rigs

It is not easy to control the speed in lifting and lowering derricks of mechanical rigs without emergency motors or automatic drilling motors, which is a great potential safety hazards. Once error operation occurs, it will cause overload and overspeed which will result in the derrick to deform or even collapse. The Company has independently developed a safety protection device for lifting and lowering derricks of mechanical rigs. In the process of lifting and lowering the derrick, such device will immediately collect data such as the inclination, lifting and lowering speed as well as large rope pulling force of the derrick, and will monitor the change of the data in real time and control the lifting and lowering condition of the derrick through the control system. When the measured data exceeds the set data range of alarm, the system will automatically output an acousto-optic alarm signal to remind the

operator to pay attention; when the measured data exceeds the upper limit of safety protection data, the system will immediately stop the operation and give an alarm, thereby maximally avoiding the deformation or even collapse of the derricks and protecting personnel safety.

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 to continuously promote the standardization of emergency procedures for enhancing on-site emergency management ability. 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 of emergency management. Furthermore, the Company also organized and conducted regular emergency trainings and drills of different levels. During the year, the Company focused on practical emergency drills for such as well control and hydrogen sulfide prevention to strive for enhancing the practical emergency response capabilities of grassroots.

Case: Concerted Effort to Fight the Typhoon "Lekima"

In August 2019, when the super typhoon "Lekima" was approaching, all units deployed work in advance and initiated emergency proposal in time. The arrangements to fight against the typhoon were well-organized, well implemented. The safety dynamics were timely reporting and updating, resulting in a situation with "fully-prepared of staff, materials and equipment ". After the typhoon and rainstorm, we quickly organized all units to resume production and went into the sites for disaster relief, ensuring production, operation and the life of employees were in an orderly manner.



Protection of Occupational Health

We attach great importance to the management of occupational health of employees, and strictly follow the requirements of various laws and regulations and industry standards such as *the Law of Work Safety of the People's Republic of China*, *the Law of the People's Republic of China on Prevention and Control of Occupational Disease* and *the Law of the People's Republic of China on Safety of Special Equipment*. The Company are committed to providing employees with good working environment 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; personnel for occupational health management with regular training to enhance their capabilities should be provided, and special investigation and management of noise and dust exceeding the standards should be carrying out; physical examination should be organized for all employees, while health status assessment should be conducted and a list of high-risk personnel should be established for formulating a "one person, one policy" health intervention plan for tracking and monitoring so as to improve the setting and equipment for emergency medical and treatment conditions; and standard for personal protective equipment should be improved.

In 2019, the Company revised and improved *the Standards for Personal Protective Equipment* to standardize the procurement, provision, use, daily maintenance, quality supervision and random inspection of personal protective equipment such as air breathing apparatus and labour protection shoes, carried out satisfaction surveys and utilization review on personal labour protective equipment, improved the basic management account for personal labour protective equipment, strictly prevented from distribution, trying to put on and inspecting in-store or random inspection of unqualified personal labour protective equipment, so as to effectively provide employees with high-quality protective equipment.

Meanwhile, the Company organized and strengthened trainings and drills for various types of occupational health emergency plans from time to time, conducted various emergency drills in accordance with the specifications strictly, and conscientiously summarized and evaluated problems arising from the drills for effective improvement of emergency response capacities of all employees, hence protecting the health and safety of employees .

Prevention and Control of Epidemic

Since the outbreak of the CNVID-19, the Company has actively responded to the requests of governments at all levels. We set up leading groups as well as epidemic prevention and control offices immediately and established epidemic prevention and control working mechanisms for full deployment and implementation of tasks for epidemic prevention and control.

We regarded the protection of employee's lives as the first priority, ensured supply of protective equipment for employees in all dimension, regularly disinfected and sterilized office areas, construction sites and living quarters, and actively carried out remote work to reduce the need for employees to go out. Meanwhile, we strictly abided by the requirements of local governments and reasonably arranged work resumption. During work resumption, we strengthened control over on-site operation staff and established health cards for all employees, for monitoring their health conditions; we enhanced education to promote the awareness of prevention and control, strengthened management of personal daily behaviors, implemented personal protection requirements, and handled abnormal situations; we implemented stringent dynamic monitoring of staff flow condition and strengthened control of entry and exit of on-site operators to reduce potential infection risks, and worked jointly with staff for good prevention and control of the epidemic.

Environmental Management

The Company strictly observes 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* and *the Solid Waste Pollution Prevention Law of the People's Republic of China*, adheres to the bottom line of legal compliance, continuously strengthens basic management, strictly controls environmental risks, enhances prevention and control of on-site pollution, conducts carbon asset inspection and review, and continued to carry out use of clean energies, with tangible achievements made in the “ecological civilization construction”, the “green and low-carbon” and the “three-year tough battle for prevention and control of pollution” strategies preliminarily.

In 2019, the Company established an environmental management network, and the Company and its operating units at all levels clarified the management organization and their environmental protection responsibilities, with all affiliated regional (professional) companies improving their environmental management system during the construction of the HSSE management system. The Company actively implemented environmental protection requirements, organized internal audits, management assessments and third-party reviews of environmental protection elements in accordance with environmental protection guidelines, and promoted the effective operation of the environmental management system at all levels of regional (professional) companies, professional operating units and grassroots units to become the guidelines and operation basis of environmental protection behavior for employees in various positions. In addition, the Company also actively established and improved the environmental risk prevention and control management system to achieve "evaluation with methods, management with systems, and control with standards", adhered to the bottom-up, and top-down principles, and regularly conducted environmental factor identification, formulated and implemented prevention and control measures, standardized environmental risk management, and improve the standard of environmental risk prevention and control. The Company has revised HSSE systems such as *the Environmental Protection and Management Regulations* and *the HSSE Performance Evaluation and Implementation* to further improve the standardization and unification of the institution and the management system.

Due to the characteristics of petroleum engineering services, the major gas emissions generated during the Company's operations is GHG emissions, mainly including carbon dioxide, methane and nitrous oxide, arising from electricity and fuel derived from the use of fossil fuels. In 2019, the total GHG emissions of Sinopec Oilfield Service was 2776682.751 tons^{2,3}. The GHG emissions per output value is 0.4841 tons / RMB10,000, which is 0.0739 tons / RMB10,000 lower than that in 2018.

Response to Climate Change

In order to effectively deal with the risks of climate change impact on the Company's business such as various disasters caused by extreme weather, we take various measures to minimize the losses caused by various climate disasters and ensure the safety of on-site construction workers and properties. During the project bidding stage, the Company fully investigates the natural environment of the project site, effectively identifies climate change

or extreme weather risks, formulates corresponding control measures and emergency plans, clarifies the commanding institutions and responsibilities of emergency rescue, and determines prevention and early warning mechanisms. Especially against environments such as extreme weathers in rainy season as well as prevention from sudden rainstorm and debris flow hazards, we strengthen on-site environmental safety management, increase the number of inspections of well sites and surrounding area thereof, and ensure emergency material reserves. During the project construction phase, the Company strictly follows the work principle of "safety first, unremitting standby, prevention-oriented, and full effort rescue", establish emergency response organizations, implement response measures, strengthen daily identification and investigation, and organise emergency drills for extreme situations. Through establishment of mechanisms such as information reporting, early warning, on-duty management, and emergency material guarantees, we ensure maximised prevention from or minimised the impact of climate change on construction projects.

Saving Resources

The Company strictly observes various energy-saving regulations and operating requirements of the construction host countries and regions, and has developed policies like *the Management Regulations on Energy and Water Conservation* for continuous efforts on saving and reducing consumption of energy as well as the "energy efficiency improvement" plan etc., hence improving the use efficiency of energy and resource while saving resources.

The Company actively promotes a green office model and adopts measures for resource conservation. The air-conditioning temperature is set to not lower than 26 °C in summer and 18 °C in winter. We make full use of natural light during the day, and leave the lights off when people leave; make reasonable use of office electrical equipment such as computers and printers; reasonably arrange for meetings, reuse briefcases, printing and copying on both sides of paper; avoid turning on the tap at full power when using water, and tightly fasten the tap after use to prevent waste; scientifically coordinate vehicle operation and encourage employees to use low-carbon transportations such as travelling on foot, by bicycles or by buses.

During the operation of projects, the Company strengthens the fundamental management on energy conservation and consumption reduction, regulates process management in the supply, consumption, statistics, analysis, etc. of energy, conducts efficiency monitoring on the energy utilization of major power equipment and systems, and checks and eliminates equipment with high energy consumption and low efficiency, thus achieving energy saving through energy conservation at the source. In 2019, the Company used a total of 6.9142 million cubic meters of industrial water. The comprehensive energy consumption per industrial production value is 0.273 tons of standard coal / RMB10,000, which is 0.005 tons of standard coal / RMB10,000 or 1.79% lower than the actual average value of 0.278 tons of standard coal / RMB10,000 in 2018; or 0.003 tons of standard coal / RMB10,000 lower than the assessment indicator of 0.276 tons of standard coal / RMB10,000 in 2019.

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

Indicators	2019	2018
Total energy consumption (MWh)	8,698,665.78	7,190,339.93
Direct energy consumption (MWh)	7,395,279.24	6,154,897.31
Petrol	237,831.29	238,686.33
Diesel	6,494,251.88	5,349,058.29
Natural gas	603,926.49	386,268.23
Coal	11,535.04	140,173.09
Liquefied petroleum gas	825.50	2,101.23
Raw petroleum	11,282.72	13,733.44
Other Energy	35,626.32	24,876.70
Indirect energy consumption (MWh)	1,303,386.54	1,035,442.62
Electricity	1,137,170.93	812,487.50
Heating Power	166,215.61	222,955.12
The industrial production comprehensive energy consumption (Tons of standard coal /RMB 10,000)	0.273	0.278

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 regions and international conventions. It established relevant systems such as the *Management Rules on Clean Production* and the *Management Rules on Pollution Prevention* to Strictly control environmental protection risks and strengthen on-site pollution prevention, and continued to use clean energy, promoted clean production technologies and equipment, and properly disposed of wastes. In addition, the Company conducted clean production reviews, strengthened on-site supervision, and promoted the establishment of a long-term clean production mechanism.

The Company actively responded to the government's heavy pollution weather warning. In response to the heavy pollution weather warning, the Company launched corresponding emergency plan and adopted relevant measures such as increasing the number of sprinkling water in drilling operations, reducing travel by non-road mobile machinery, laying dust-proof nets at construction sites, and implementing grid power applications to reduce dust and exhaust emissions.

The Company continued to promote clean energy structure adjustment and create conditions to vigorously promote the application of clean energies. Meanwhile, the Company continued

to carry out application of natural gas engine technology, while Zhongyuan Petroleum Engineering Company renovated coal-fired boilers for heating in Xinjiang's industrial areas, comprehensively switching to clean energy such as LNG / CNG and achieving zero coal consumption. In 2019, the Company completed a total of 642 wells with grid-powered rigs, with a drilling footage of 1.4084 million meters, replacing 922,800 tons of diesel and saving 1.276 million tons of standard coal.

The Company promoted green enterprise actions and adopted a series of environmental protection measures during operation. It disposed of solid wastes, hazardous wastes, drilling operation wastewater and domestic wastewater according to laws and regulations, and enhanced the level of reduced, harmless and comprehensive use of resources. The Company vigorously promoted integrated management of abandoned drilling fluids (including rock cuttings) to reduce pollutants at the source; laid anti-seepage membranes on diesel tanks and drainage ditches at well sites to prevent contamination of soil and surface water; and strictly carried out recycling of drilling mud, strictly controlled production of sewage from the wells, implemented mutual transportation of mud and sewage, reused wastewater, reduced the use of clean water, and saved the land of large earthen ponds; harmlessly solidified the drilling cuttings following the procedures of commencement permit, process supervision, completion inspection and acceptance, and inviting third-parties to carry out inspection and management; insisted on good practice of collecting waste water from underground operations, on-site anti-seepage as well as recovery of sewage and oil at the wellhead, so as to realise clearing materials and sites upon completion of projects.

At present, the waste produced in the Company's operations mainly include oil-base drilling cuttings and solid wastes, among which the oil-base drilling cuttings are hazardous wastes. In 2019, the Company lawfully handled 1.263 million tons of ordinary solid wastes which underwent harmless treatment or integrated utilization, and 127,100 tons of oil-base drilling cuttings which were processed by thermal analysis and other processes. The Company disposed of 352,000 cubic meters of drilling wastewater and 176,700 cubic meters of working wastewater in compliance with the regulations, and pre-disposed and recycled on site or entrusted others to conduct concentrated sewage treatment of 334,800 cubic meters of domestic sewage.

In 2019, the Company actively carried out education and trainings on clean production, incorporated environmental protection education into its annual training plan and implemented it, systematically promoted learning about clean production, and earnestly organized and rolled out activities including "Energy Conservation Publicity Week" and "National Low Carbon Day" with centering on the themes of " Defense of the blue sky and I am an actor ", "Green development begins with energy saving" and "Low-carbon action for defending the blue sky", and promoted environmental protection expertise and basic knowledge through LED electronic display screens, the Internet, mobile phones, newspapers, banners and posters etc. to further enhance the awareness of cleaner production and green development of all employees.

Case: Applying Complete set of processing equipment with waste drilling mud being integrated with the drill instead of on the ground to reduce environmental pollution

Based on existing drilling technology and the current status of the solid control system used by the drilling team, with focus on the characteristics of different stages such as clear water drilling, drilling fluid drilling, cement replacement and post-drilling slurry treatment, which are successively carried out during the drilling process, the Company independently developed a complete set of processing equipment with waste drilling mud being integrated with the drill instead of on the ground. The equipment can realize dehydration and drying of the waste drilling fluid for reuse, with the processed solidified drilling fluid meeting transportation conditions. At present, the equipment has been promoted and applied to more than 200 wells in Shengli Industrial Zone, and has realised clean and contaminated water diversion for classified treatment to achieve the goal of reduced treatment, decreasing the difficulty of later harmless treatment and the costs for comprehensive drilling fluid treatment.



Case: Wellhead blowout-proof riser telescopic environmental protection device on offshore operation platform to avoid marine pollution

Offshore operation platforms are characterized by high operation risks and high environmental protection difficulties. The bell mouth of the platform's blowout-proof riser is about 50-100cm away from the bottom of the drill floor. During the process of lifting the oil pipe, the contaminated oil on the pipe wall will easily be blown off by the wind onto the platform or will float into the sea to cause pollution. To this end, the construction personnel of the Shengli Operating No. 5 platform modified the existing blowout-proof riser by processing a cylindrical retractable environmental protection device at the upper part of the bell mouth, which closes the exposed part from the blowout-proof riser to the bare part of the bottom of the oil rig, thus effectively avoiding environmental pollution caused by oil pollutant and eliminating hidden dangers of environmental protection.



Case: The Shengjian Project Uses Smart Cloud Platform System to Reduce Air Pollution

To effectively reduce air pollution, the Shengjian project undertaken by the Company uses a network of smart cloud platform system in



conjunction with an automatic environmental monitoring device for automatic control the spray system to reduce dust when PM2.5 fails to meet the standards. Underground water extracted from the well point precipitation device will undergo sedimentation and filtration treatment for use in on-site sprinkling for dust suppression and toilet flushing, which has also saved water consumption.

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 control of project quality and service quality, providing a solid quality guarantee for the Company to deepen reform and improve quality.

Management System Improvement

In 2019, the Company continued to improve the quality control system and system construction, with revision of the *Quality Control Measures* which further clarified the quality control functions of relevant departments, refined and perfected the quality control requirements of petroleum engineering projects. We also formulated the *Administrative Measures on Activities of the Quality Control Team* (hereinafter referred to as "QC Team") to promote the standardized and effective development of QC team activities. In addition, the Company strengthened the three major infrastructures of measurement, standardization as well as inspection and testing, and carried out tasks including laboratory test capability comparison and measurement inspection to continuously consolidate the quality control foundation to support the sustainable and high-quality development of the Company.

To strengthen the coordinated service and resource coordination of the petroleum engineering team of the Company's key industrial zones while enhancing the efficiency and effectiveness of our engineering technical services, the Company set up work coordination groups in the Northwest, Southwest and Northern China Industrial Zone in 2019, which mainly perform the regional management functions on behalf of the Company, being responsible for market management, planning, operation, bidding and other related matters. The coordination groups coordinate the adjustment of market layout of internal construction units, and organize sharing of experience and technology, team deployment, overall planning of materials and equipment, safety supervision, and operation information statistics on behalf of the Company to strengthen the market operations and improve the project quality and service efficiency of the Company.

Quality Control of Projects

To strengthen the quality control of petroleum engineering projects, the Company launched the "Petroleum Engineering Quality Improvement Year" activity in 2019 to promote the creation of high-quality engineering and refined engineering projects. Meanwhile, the

Company formulated management measures such as the Management Rules on Failures in Middle Drill Well Engineering of Sinopec Oilfield Service Corporation and the Management Rules on Wellbore Engineering Expert Database of Sinopec Oilfield Service Corporation to continuously promote the quality control of engineering projects. In respect of team building, the Company formulated the Management Rules (Interim) on the Qualification of Petroleum Engineering Project Teams of Sinopec Oilfield Service Corporation to standardize team qualification management, and successfully completed organization of reviewing expired qualifications of the drilling teams, the logging teams and the underground operation teams for better serving market development and production operation.

To further improve the quality control level of the projects, the Company's standard project management platform fully implemented online operation in 2019, including in respect of the quality control information system and the mobile APP for measurement management, has put into online trial operation at Zhongyuan Engineering Company, and has completed promotion in various regional (professional) companies. During the promotion period, the quality and measurement management information database data will be refined, improved and maintained, and the system function modules will continue to be optimized according to the promotion and operation conditions, laying the foundation for the gradual realization of the Company's technical supervision and management informatization

During the year, the Company strengthened management of key projects and key wells, conducted field investigation and guidance on high-risk wells and key wells, solved engineering problems and technical bottlenecks in key projects through on-site investigation and guidance of high-risk wells and key wells as well as organization of on-site technical seminars, etc. to resolve engineering problems and technical bottlenecks in key projects, and to prevent and deal with complicated failures arising in projects. Meanwhile, the Company has strengthened its involvement in segments including approval of plans for key well, construction commencement acceptance as well as on-site management and control to improve the project quality of key projects.

In order to strengthen fault management in projects, the Company regularly issued quarterly complicated faults notifications, and organized the convening of annual project fault analysis seminars and seminars for complicated faults in key industrial zones and for key wells to analyze typical cases, discuss strengthening management of complicated faults in projects as well as prevention and control measures. The Company also carried out dynamic tracking of production, with focus on tracking and analyzing complex downhole faults for provision of technical guidance, supervision and well stationed guidance based on the classification of complicated faults to accelerate faults processing.

Furthermore, the Company organized technical training relating to complicated fault prevention and well control, and successively held seminars on the prevention and treatment of complicated faults in drilling engineering, training seminars for director-level well control, training courses for enhancing the capability for dealing with drilling fluids in Xinjiang Industrial Zone, training courses for enhancing the capability for dealing with drilling fluids in the Southwest Industrial Zone, and well control technology training courses for key drilling technicians in the Sichuan and Chongqing areas of Sinopec Oilfield Service, hereby

strengthening the ability of technical staff to cope with complicated faults and further improving the quality control of projects.



Awards for Quality

- The Project of "Capacity Building for Phase I of Jiaoshiba Block of Fuling Shale Gas Field" received the National Gold Award for Quality Engineering
- The Project of "Capacity Building for Yuanba Gas Field" received the National Quality Engineering Award;
- The Project of "Steel Structure for Enclosed Renovation of the Coal Depot of Shengli Power Plant" won the Gold Award for Steel Structure in China;
- The Company won 4 gold medals, 11 silver medals and 11 bronze medals in the "China Skill Competition - The First National Professional Skill Competition for Oil Drillers of Oil and Gas Development Profession" in 2019.

Service Quality Control

In order to better serve its customers, the Company has established an effective feedback mechanism to entertain their feedback and process their complaints and suggestions in a timely manner, which has realized full control throughout the process; a production scheduling system has also been established to solve service-related problems with a market information management system established to receive the feedback on a regular basis, with which all the customers within the system will be accounted for or visited, thus forming a complete after-sales service mechanism; a monitoring system has also been established to investigate and verify violations reported by the whistle-blowers, and hold the violating individuals and units responsible for the consequences and inflict corresponding punishments on them in accordance with the applicable regulations, such experiences will be included in their annual assessment to form a closed-loop management for resolution of the problems, so as to provide our customers with more reliable and high-quality services.

Quality activity case 1: the "Day of Quality" and "Month of Quality" activities

The Company strives to provide its customers with first-class quality and services, and has been actively organizing a series of interactive activities such as the "Day of Quality" and "Month of Quality" under the guidance of its mottos known as "consolidate the foundation of comprehensive quality control and achieve high-quality sustainable development" and "work together to accomplish the quality of China and make China a power of outstanding quality", during which a number of activities, such as quality review, quality training, quality follow-up visits, supervision and inspection, exchanges of opinions, labour contests, and questionnaires, will be held to mobilize all our its employees to join in the quality control activities, and create an atmosphere in which everyone values and strives to deliver good quality, thus further enhancing the awareness of quality of all our employees.



Quality activity case 2: "Improve quality and increase speed and efficiency" contests in key construction areas

The Company's construction units in the three major construction areas i.e. Northwest, North China, Sichuan and Chongqing, staged contests for quality of engineering, expertise of management, and profitability, aiming at sharpening skills, improving efficiency, and motivating all our employees to be pioneers and make contributions and constructive advices to the Company's comprehensive and sustainable development.



Operation in Compliance with Laws and Regulations

Operation in compliance with laws and regulations is the foundation for the Company's stable development, on which the Company operates in accordance with the applicable laws and regulations, facilitates the development of a flawless work style and integrity within the Party, consolidates the management of intellectual property rights, carefully protects the security of customer information, and optimizes its supplier management system to ensure the Company's sustainable development.

Integrity Development

The Company attaches great importance to the development of a flawless work style and a clean government, complies strictly with the laws and regulations such as the *Audit Law of the People's Republic of China*, *Several Provisions on the Probity of Leadership of State-owned Enterprises*, *The Regulations of the Communist Party of China on Accountability*, and

formulated relevant rules and regulations such as the Rules for Inspection of the Party Committee and promulgated specific work requirements such as the *"Key Points in the Development of Flawless Work Style within the Party and Anti-Corruption Work in 2019"*, aiming to clarify the duties and responsibilities of the cadres, carry out daily supervision, strengthen inspection and assessment, and facilitate the implementation of their responsibilities.

In order to strengthen the awareness of integrity and responsibility, the Company makes arrangement for the mid-level management to report to the Company's party committee semiannually on the development of flawless party style and clean government in their own area of management, so as to track the results of the education and rectification of the problems. The Company has set up a leading group for rectification to urge the implementation of the tasks of inspection and rectification. In 2019, the leading group facilitated the convening of a total of 6 meetings of the party committees to consider the deployment of inspections and rectification work, assisting and reminding the secretaries of party committees to personally lead the major rectification tasks at critical stages and coordinate and supervise the implementation of the relevant measures.

In line with its campaign to fight grassroots corruption and the "Four Corrupted Styles (Formalism, Bureaucracy, Hedonism and Extravagance)", the Company compiles anti-corruption education materials and special party education materials, organizes lectures on occupational crime prevention, and urges regional (professional) companies to carry out integrity education in a practical manner, and set up anti-corruption education classes for the trainees in the classes of middle and senior project managers, market development and material procurement staff, aiming to enhance their awareness of anti-corruption. In addition, the Company reinforces the supervision responsibilities of disciplinary committees at all levels, strictly regulates the handling of clues from the letters and visits of the whistle-blowers, strengthens accountability in discipline enforcement, and scientifically uses the means of supervision and discipline enforcement in combination with early warnings to build a clean and incorruptible enterprise.

Protection of Intellectual Property Rights

The Company continuously implemented and strengthened the intellectual property rights management system, including avoiding infringement of intellectual property rights and protecting its own intellectual property rights, and strictly abided by *the Anti-unfair Competition Law of the PRC, the Trademark Law of the PRC, the Patent Law of the PRC, the Implementation Regulations of the Trademark Law of the PRC* and other laws and regulations. The Company revised the rules and regulations on intellectual property rights, such as *the Measures for the Management of Intellectual Property Rights* based on business characteristics, which standardized the use of trademarks, set out the classification of intellectual property rights and clarified the responsibilities at all levels, and formulated supervision, reward and punishment measures.

The Company further reinforced the awareness of property rights, enhanced the analysis of the free operation rights (FTO) of intellectual property rights, having completed the FTO

analysis of the "node collection system" technology and related patents this year, which provided guarantee for the license conversion of this technology. In addition, the Company accelerated the patent layout of key foreign markets. In 2019, two patented technologies were filed with foreign patent applications to Saudi Arabia, Kuwait and other countries to further expand the influence of the Company's patented technology.

In order to improve the vitality of the Company, employees were strongly encouraged to invent and create, proactively promote the accomplishment of inventions and innovation, and continuously improve the Company's innovation level and market competitiveness. In 2019, the number of patents applied and authorized by the Company increased compared with the previous year, with a total of 711 patents applied, including 351 authorized patents.

Protection of Information Security

The Company strictly complied with relevant laws and regulations such as *the Law of the PRC on Network Security* and *the Administrative Measures for the Grading and Protection of Information Security*, and added confidentiality clauses to the Company's management requirements, requiring relevant units to report important information in a timely manner and clarifying the source and content of information, which provided institutional protection for the Company's information security; In addition, the Company conducted regular and irregular supervision and inspection on the confidentiality of confidential personnel. Once the relevant personnel are found to violate national laws and regulations, group rules and regulations and company management regulations, they will be dealt with seriously. The Company was determined to prevent the leakage of information and data from suppliers, partners and customers.

Management of Supply Chain

The Company strictly complied with relevant laws and regulations such as *the Anti-unfair Competition Law of the PRC*, and formulated *the Measures for the Management of Material Supply*, *the Measures for the Management of Material Purchase*, *the Measures for the Management of Material Purchase and Supply Resources*, *the Administrative Measures for the Supervision and Random Inspection of the Quality of Purchase Materials* and other rules and regulations. Regional (professional) companies proactively formulated and issued detailed implementation rules and related regulations and carried out system construction work, jointly improving the Company's supply system. The Company also proactively promoted the concept of green procurement, continuously optimized the procurement strategy and procurement plan, and integrated the green concept into the system, procurement strategy, procurement plan, etc., actually implementing the Green Enterprise Action Plan and promoting green procurement management. In 2019, the subsidiaries of the Company prepared the Implementation Rules for Green Procurement Management which specified the requirements related to green procurement, and proactively implemented the green procurement concept.

The Company took a cautious attitude and strict criteria to select suppliers. Based on the management mechanism of supplier admission, usage, review, performance evaluation and withdrawal, the Company promoted the application of supplier's corporate credit certification,

product quality evaluation, and supplier performance dynamic evaluation in procurement to strengthen the management of suppliers. In addition, the Company established a company material supply management performance evaluation index system consisting of quantitative and qualitative evaluation indicators and binding evaluation indicators, and organized monthly rankings and reports on the supply performance of companies in various regions (professional). The Company also integrated external project and overseas project suppliers into the management of the supply resource system, which clarified the process of supplier qualification review, site inspection and evaluation, so as to improve the quality of supplier selection, enhance the ability to ensure material supply and prevent and control the risk of material supply.

In order to further optimize the supply chain management system, the Company steadily promoted the construction of information technology, comprehensively promoted the application of supplier information systems, and ensured open, transparent and traceable procurement. The Company continued to improve the construction of ERP material modules and raised the informationization level of equipment management. At the same time, we continued to strengthen the application of supplier e-commerce websites to improve the informationization level of procurement management.

Staff Care

The Company always regards staff care as its development foundation and firmly believes that employees are the most valuable wealth. To our best knowledge, protecting the legitimate rights and interests of employees and building a harmonious enterprise are the key to the Company's sustainable development and the driving force for its growth.

Employment

We strictly conforms to the *Labour Law of the People's Republic of China*, *Labour Contract Law of the People's Republic of China*, *the Law of the People's Republic of China on Prevention and Control of Occupational Disease*, *the Special Rules on the Labour Protection of Female Employees*, and *the Provisions on the Supervision and Administration of Occupational Health in the Workplace*, and other relevant laws and regulations. Besides we formulated a series of relevant rules and regulations according to the above laws, and insists on recruiting and managing employees in accordance with laws and regulations. We enter into labour contracts with each employee and strictly abide by relevant laws and regulations to deal with employee departure matters.

The Company treats all the employees of different nationalities, races, genders, religious beliefs and cultural backgrounds fairly, and protects 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 labour contract or employment contract with them because of pregnancy, childbirth or lactation. We oppose to any discrimination based on factors such as gender, race and belief, respect the customs of ethnic minorities, set up halal cafeterias and allow ethnic minority employees to enjoy corresponding traditional festivals in accordance with law. In 2019, the Company had no

incidents that seriously violated any relevant human resources management laws and regulations, and there was no employment of child labour and forced labour.

To fully revitalize internal human resources, continuously optimize employment, and strengthen total labour management, we scientifically formulate a human resources optimization and overall implementation plan, and adopt methods such as formation, modularization, and flexibility to promote the orderly flow of personnel; urge all units to combine with post allocation specifications to strengthen key grass-root level positions and fully deploy production teams to ensure employment and work safety in accordance with laws for fully ensuring oil and gas exploration and development.

Salary and Welfare

The Company strengthens construction of security system for employee compensation and benefits for building a diversified incentive system to enhance employee loyalty. We strictly implement the Assessment Measures for Linking Total Wages to the Economic Benefits System, deepen implementation of market-based personnel and labour distribution mechanism, strengthen employee performance assessment, and achieved the evaluation of linking total wages to the economic benefits to mobilize the work motivation of employees. 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 labour law and implements them after going to the local labour department for record and approval. The benefits set by the Company and its subordinate units also include: annual health checkups for all employees, and employee psychological counseling services. The Company guarantees the right of employees to take rest and vacation in strict accordance with the laws and regulations of the country and region where the project is operated.

The Company adheres to the people-oriented development philosophy, implements the integrated management of employees' occupational health, physical health and mental health for construction of a comprehensive health management system; implements the project of strengthening enterprises with talents, strengthens the construction of various talent teams, and enhances the happiness of employees. In 2019, the Company held employee sports games covering a number of competitions such as basketball, badminton, table tennis and fun sports, with active participation of the majority of employees. The Company has also organized the "Iron Army Walking Tours" activity which has attracted the active participation of more than 8,100 employees and was widely praised by the employees. Taking the opportunity to welcome the 70th anniversary for the founding of New China, the Company has organized a variety of cultural and sports activities including cultural evenings to provide employees with a variety of colorful entertainment activities.



Fun Games



The Second Staff Basketball Game



70th Anniversary Singing Concert



The Iron Army Walking Tours

To alleviate the long-term homesickness and work pressure of Chinese employees working abroad, and to promote emotional exchanges between Chinese and foreign employees, the subsidiary in Ecuador organized activities such as concerted drifting and healthy jogging to enrich the amateur cultural life of employees and enhance team friendship.



Development and Training

We firmly establish the concept of talent-driven development, provide multichannel promotion opportunities and organize 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 always provides employees with perfect talent development channel, organizes all employees to compete for posts, and conducts competitive selection for cadres at middle level. The business posts are competitively employed, take use of and give full play to the innovative and creative abilities of young talents to stimulate the vitality of the team and help the rapid development of enterprises.

We closely focus on the needs of corporate reform and development, team building and employee growth, and take improving ideological and political quality as the foundation, focusing on professional capacity building, and continuously improving employees training system through the implementation of training responsibilities, detailed training requirements for employees, and strengthening management of training institutions. In order to enhance the business capabilities of core teams, we focus on the training of 4 types of personnel, including leading cadres, technical experts, international talents, and business backbones, and conduct special training to strengthen the cultivation of high-quality talents. For the training of front-line employees, we focus on pre-job training, and strengthen post-adapted training, improve the basic skills of all employees in accordance with the classification of duties, and work with security departments to strengthen safety training to improve the quality of security certificate-obtained training and ensure that the training rate of front-line teams is 100 %, and the rate of employees holding certificates is 100%.

We continuously strengthen our training foundation by rationally sharing training resources and strengthening mobile-side learning and training standardization. In terms of training resources, we have established stable cooperative relationships with management cadres, training centers of sales company, etc., continuously developed and improved quality training programs, and established competency models and curriculum systems for key positions such as project managers and grassroots team leaders. In terms of mobile learning, we increased the use of remote training systems and MOOC with technologies, promoted mobile terminal learning such as the Zhongyuan Project “Tiejun e School”, carried out on-site training and delivery training to improve employee training effectiveness. Regarding the training standardization, we further improved the standardization and standardized management of training by strengthening the selection and management of trainees, strengthening the training assessment and effect evaluation, refining the training standards and funding management requirements, and focusing on the construction of the training information database.

During the year, we organized a total of 29 company-level training projects and trained 1,663 employees, including special training courses for capacity improvement, training courses for comprehensive capacity improvement for young cadres, and special training courses for technical personnel. We provided corresponding ability training according to the needs of different employees. In addition, through technical training courses, more comprehensive technical support and services have been provided to the work area.

Case 1: Training Courses for Capacity Improvement of the Principal of Professional Business Unit

In order to promote the building of the cadre team, the Company invited experts from relevant national ministries and commissions, the Central Party School, and well-known domestic enterprises to give lectures, and held the third and fourth training courses for capacity improvement of the principal of professional business units at the Management Cadre Academy. The training to principal of the unit effectively improved the overall quality and ability of cadres and students in political leadership, reform and innovation, business efficiency and risk management.



Case 2: Training Courses for Comprehensive Capacity Improvement for Young Cadres

In order to thoroughly implement the Company's deployment of building a "three strong" cadre team and implement the requirements for accelerating the training of young cadres, the Company held a comprehensive capacity improvement course for young cadres at the Shengli Engineering Training Center from August 18 to September 19. 42 outstanding young cadres from grassroots units and institutions of companies in various regions (professionals) participated in the course. This training has achieved the in-depth participation of young students through rational curriculum design, excellent team faculty, and innovative teaching methods, and effectively improved the comprehensive ability of young cadres.



Case 3: Well Control Technology Training Course for Backbone Drilling Technicians in Sichuan and Chongqing Areas

In order to further improve the well control technology level and risk prevention and control ability of the backbone drilling technicians in Sichuan and Chongqing areas, and promote the Company's well control management work to a new level, on 23 September 2019, the well drilling technology training courses for backbone technicians in Sichuan and Chongqing

areas opened in Deyang, Sichuan, and the deputy general manager of the Company attended the class opening ceremony and put forward requirements on how to better carry out well control management. A total of 65 technical backbones from drilling supervision, platform managers, and secretaries from oil and gas field branches and petroleum engineering companies in Sichuan and Chongqing areas participated in the training.



Case 4: The First National Oil-gas Development Professional Oil Driller Vocational Skills Competition

At the “China Skills Competition-The First National Oil-gas Development Professional Oil Driller Vocational Skills Competition” held on 24 September 2019, the Company obtained a total of 4 gold, 11 silver and 11 bronze medals, ranked first among the top three oil companies in China. Li Xiaolong, from Jiangnan Oil Engineering Company ranked third in the individual with a high score of 96.52, won the gold medal, and was awarded the title of “National Technical Expert” by the Ministry of Human Resources and Social Security; Liu Chengye of Shengli Petroleum Engineering Company, Duan Maozeng and Wu Hongjun from Offshore Oil Engineering Co., Ltd. won gold medals; representative teams of Shengli Oil Engineering Company and Southwest Oil Engineering Company ranked the second and third place in the group respectively.



Community Investment

Holding the concept of “Honesty and Integrity, Cooperation and Mutual Benefits, Requite the Locality and Contribute to the Local Economy for Prosperity”, the Company takes the initiative to undertake our corporate social responsibilities during its development. The Company continuously strengthens the employee volunteer team to construct infrastructure projects to improve local people’s livelihood, supports to fight against precision poverty alleviation and continuously increases counterpart support, provides assistance in specified areas, organizes charitable donations, provides education aids, helps the vulnerable and receives widespread praise from all walks of life. The Company also actively implements social responsibilities overseas, promotes local economic development and environmental protection, and demonstrates its responsibility as a global corporate citizen.

Environmental protection

Adhering to the development concept that “green mountains and clear water are our invaluable assets”, the Company continued to carry out environmental greening and beautification to constantly improve spiritual civilization construction. On 11 March 2019, more than 40 young volunteers of the Company held a greening environmental protection activity themed “Caring for, Planting and Protecting Green Plants, We are in Action” at the surrounding community. The volunteers planted holly, photinia serrulata, begonia, red-leaf plum and red-leaf peach and other green plants.



Targeted Poverty Alleviation

The Company continuously puts forward ideas for poverty alleviation, helps local governments win the battle against poverty, fulfills social responsibilities in all aspects, and establishes a good corporate image of the Company. The Company assisted Linba Village, Beiyuan Town, Nanbu County, Sichuan Province to get rid of poverty, and worked with the Southwest Petroleum Bureau to assist the Yunnan Provincial Human Resources and Social Affairs Department to provide living assistance to poor households in 7 villages in Shanyang Town, Yongping County, Yunnan Province. In 2019, the Company advocated that organizations and employees at all levels actively purchased products and services in poverty-stricken areas, and coordinated production and business units to use local trade unions, cafeterias, and office



operations to purchase local products as many as possible in poor areas. Through the research and exchange, the Company's labour union purchased 975 kg of rouge rice at one time from Linba Village, Beiyuan Town, Nanbu County, totaling RMB39,000.

In order to ensure that the measures for poverty alleviation are accurate and effective, the Company insists on solid measures to improve living conditions in the aided areas. On 31 October 2019, the Company assisted the construction of a cultural activity room for Yangjing Village, Wujian Town, around the well area, and equipped it with many facilities such as computers, projectors, projection screens, and audio equipment. The Company also carried out various forms of co-construction activities, bringing benefits to Yangjing Village, and ensuring that the urban-rural co-construction and poverty alleviation work can be fully achieved.

Community Public Welfare

The spirit of volunteers is the epitome of the traditional virtues of the contemporary Chinese nation and an authentic embodiment of the core values of socialism. As providing services for others with love, our employees can offer them warmth and improve themselves as well. The Company has carried out a set of community charity activities, including various forms of volunteer activities such as condolences to the disabled and the elderly, community convenience services, books for green plants, and voluntary blood donation.



Case: Community public welfare activities of "science popularization of petroleum in campuses"

In March and October 2019, the Company organized employees to go to primary schools carrying out community charity activity of "science popularization of petroleum in campuses" for children. This activity not only enriched the children's after-school life with petroleum knowledge, but also boosted the relationship between the Company and the local community, and demonstrated the good image of the Company. Although the time for volunteer activities hastily ticked away, for each volunteer, it was a soul collision with children and the education for love.



Case: Left-behind children caring activity of “sharing knowledge with overwhelming love”

On 6 March 2019, the Youth League Committee of the Company brought more than 20 idle computers collected to Liujiazhen Middle School. With the theme of "sharing knowledge with overwhelming love", by way of building electric classrooms and conducting psychological counseling, having them experience the "simulated court trial", children can also pass on the fun of legal knowledge and attitudes towards life while satisfying their desire for online information. The activity was strongly supported by the People's Court of Youxian District, Mianyang City and the social psychological consultation agency, and caused widespread concern from all walks of life. This is the third year that the Company has organized a volunteer service team to carry out volunteer service in Liujiazhen Middle School. Rich learning resources have been sent for left-behind students, along with a knowledgeable and warm environment for them to grow.



During the epidemic, Sinopec Oilfield Service carried forward the fine tradition of “a party in trouble, assistance from all quarters”, and on the basis of allocating a special party fee of RMB100,000 to Jiangnan project, it also actively responded to the call of the party group and organized party members and cadres in Beijing to carry out fundraising activities against the epidemic. On 29 February 2020, a total of RMB445,000 was donated to support enterprises in fighting the epidemic with actual actions, and boosted the confidence and morale of cadres and employees to overcome the epidemic.

Case: 47 cases of anti-epidemic medical supplies for Wuhan aided from Saudi Arabia

During the epidemic of the novel coronavirus pneumonia, the Company actively supported the front line of epidemic prevention. Among them, the staff of the Saudi Special Projects Department of North China Oil Engineering Corporation raised funds equivalent to RMB88,000, and temporarily formed a volunteer team for the preparation of emergency anti-epidemic materials, purchasing N95 1860 masks and protective medical gloves from several medical supply points. Within just 2 days, the cadres and employees of the project worked together to complete a series of tasks such as fundraising, procurement, docking with hospitals, and shipping. 47 standard cases filled with 5,000 N95 1860 medical masks and 1,000 protective medical gloves from fundraising arrived in Wuhan First Hospital in Hubei Province by air from International Logistics Company.

Overseas Responsibility

The Company actively fulfills its social responsibilities in overseas operations and renovates schools and squares in the Miguel Hidalgo community of Panuco, Mexico 's oil zone, providing children in the local community with a more comfortable learning and living environment.



On 30 November 2019, the Company's overseas project department organized all employees of the Algerian subsidiary to participate in the China-Arab friendship tree planting activities held in the "China-Arab Friendship Garden", and Kuwait branch companies and Mexican subsidiaries also launched overseas tree planting activities afterwards. Overseas tree planting activities have enabled the Company's overseas employees to actively integrate themselves into the local communities, and at the same time they have taken the responsibilities of Chinese enterprises for environment protection.



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 – Saving 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 – Saving Resources
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Environmental Management – Saving 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 – Saving 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.	Staff Care
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.	Occupational health and Safety Assurance
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.	Occupational health and Safety Assurance
Aspect B3: Development and Training		
General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Staff Care– 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.	Staff Care– Employment
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 in compliance with laws and regulations - Management of Supply Chain
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.	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 in Compliance with Laws and Regulations - Protection of Intellectual Property Rights
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 in Compliance with Laws and Regulations - Protection of 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 in Compliance with Laws and Regulations – Integrity Development

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 in Compliance with Laws and Regulations – Integrity Development
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