

**PROVISION OF WELL TESTING  
INSTALLATION SERVICES /  
PENYEDIAAN JASA INSTALASI UJI SUMUR**

**Reference Number / Nomor Referensi:  
18000023-OQ-10103**

**Exhibit B – Scope of Work /  
Lampiran B – Lingkup Pekerjaan**

# Scope of Work

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## I. General

This contract is developed as means to provide production line installation services and valve maintenance to support Rantau Dedap Stage-1 Development. The detail work is described in this Exhibit B. CONTRACTOR is expected to provide services which align with terms and conditions as described below.

## II. Services Implementation

1. CONTRACTOR shall perform installation services of production line. The general services consisting of but not limited to:
  - 1) Install production line and injection line
  - 2) Perform welding inspection
  - 3) Dismantle production line and injection line
  - 4) Fabricate pipe support both production and injection line
2. Site is defined as Rantau Dedap working area.
3. Service is performed based on on-call basis and defined as daily operation basis.
4. One day operation is defined as 12 hours working time in which started time is based on field operation condition and as COMPANY instruction.
5. Production line is defined as 12" inch piping that connects wellhead to atmospheric flush tank (AFT) complete with sampling ports.
6. Injection line is defined as 8"/6" piping that connects pump outlet/pond outlet to the wellhead of injection well.
7. CONTRACTOR shall commence the Services maximum 7 days after ITP issuance.
8. CONTRACTOR shall perform welding joint surface preparation, light duty fit up and erection of production and injection prior to perform welding work.
9. CONTRACTOR shall responsible for mobilization and demobilization equipment and team to the Site location.
10. CONTRACTOR is responsible for personnel transportation and accommodation at site during work commencement.
11. CONTRACTOR shall submit complete report of welding service including third party NDE CONTRACTOR and shall comply with conformance design standard requirements.
12. The Service to be performed by CONTRACTOR is situational welding work based on drawing and other specification requirement required under the direction by COMPANY.
13. CONTRACTOR shall perform both welding work at Site and/or welding work to be done at CONTRACTOR workshop.
14. CONTRACTOR shall provide best practice of standard operating procedure (SOP) and risk assessment analysis prior to perform the service.

15. CONTRACTOR is required to submit post service report consisting of work documentation, activity log, and post-welding inspection result.
16. CONTRACTOR shall provide 1 (one) complete welding equipment unit and consumables ready to use and to be stand by on site as monthly basis based on ITP.
17. CONTRACTOR shall provide another 1 (one) complete welding equipment unit and consumables required which is considered as on call basis. COMPANY will notify CONTRACTOR 1 (one) week in advance thru ITP (Instruction to Perform) before the on-call welding equipment is commenced. CONTRACTOR shall commence additional welding service within 7 days after such ITP issuance. The additional welding personnel is also required to perform this additional welding work, upon instruction by Company.
18. CONTRACTOR shall perform 12" valve maintenance and repair at CONTRACTOR's warehouse. Contractor scope associated to this valve maintenance and repair shall include parts replacement, function test, and mob-demob complete with cargo insurance. CONTRACTOR shall also provide guarantee statement as well as submit final report upon completion of maintenance.
19. CONTRACTOR shall perform 1-day training on-site related with valve maintenance. Required training materials shall be provided by CONTRACTOR. CONTRACTOR shall be responsible for transportation of Trainer Personnel from Point of Origin to Pagar Alam Airport or Lahat, vice versa. Company only will provide Site transportation and Site Accommodation.

#### **A. Welding Personnel**

1. One welding team should consist of:
  - a. One (1) Welding Supervisor with minimal 3 years' experience and also capable as NDT Inspector with Level II Certification
  - b. One (1) Senior Welder with minimal 3 years experiences and hold certificate of EBTKE/Minerbapabum for ASME SEC IX-SMAW-6G Base Metal AISI 105/106/5L Pipe
  - c. One (1) Pipe Fitter with minimal 3 years experiences and shall holding valid 1 G qualification
  - d. Two (2) helper with minimal 3 years experiences
  - e. One (1) Safety Officer who can be supervise two welding team during parallel service period.
2. Welding team personnel shall be able to read and understand PID drawing.
3. Welding team personnel shall have experience in performing welding of structural steels, pressurized retaining equipment and other specific job.
4. Welding team personnel shall understand standard and proper welding equipment unit and tools.
5. Welding team personnel shall has good commitment and comply with welding safety practice.
6. Welding Supervisor at minimum shall holds certificate of competency from B4T (Balai Besar Bahan dan Barang Teknik) or BKI (Biro Klasifikasi Indonesia) as national welding inspector and shall have two years experience as a welding supervisor or inspector.

7. Welder shall still active in the welding works, certified welder, familiar with the utilization and application of flux core welding rod.
8. Welding team shall be able work based on field operation condition as instructed by COMPANY. Maximum daily duration is 12 hours working time.
9. CONTRACTOR shall get approval from COMPANY Representatives before additional work commencement.

## **B. Welding Equipment**

CONTRACTOR shall provide proper welding equipment and tools including but not limited to:

1. Welding carrier trucks (flatbed) complete with the tool box manufacture 2013 or newer. Carrier truck shall be inspected by internal inspector or third-party contractor prior to mobilization.
2. Electrical welding machine, accessories and consumable.
3. Gas cutting torch, accessories and consumable.
4. Electrical tool.
5. Welding safety and equipment.
6. Welding machine, oxygen and acetylene cylinders, storage box, shall be attached to the bed carrier properly secured and safe movement.
7. Welding machine set consists of, but not limited to the followings:
  - One set diesel engine driven-arc welding machine.
  - Auxiliary power outlet with 3 kVA, 220 V capacities, complete with running hour-meter.
  - Appropriate connection devices to join the 25 m long welding /grounding cable to 50 m long welding/grounding cable.
  - Heavy duty grounding clamp (screw type clamp preferred).
  - Heavy duty electrode holder.
  - Appropriate welding rod - e.g. SMAW welding rod.
  - Welding accessories for SMAW and GTAW.
  - Welding rod quiver.
  - Cutting Torch set and accessories.
  - Lifting equipment, 2 MT capacity chain block and the tripod
8. Electrical tools and accessories, which minimum consist of:
  - Electrical grinder equipped by abrasive protector, 220V, 6,500 rpm rotating speed
  - Grinding stone 4" and 7" disk diameter.
9. Measurement tools (tape, steel angle, etc).
10. Welding Safety Equipment minimum consist of the followings:
  - adequate and certified portable fire extinguisher
  - 1 set heavy duty welding mask (full face) complete with the shield glasses (black and clear)
  - 1 set heavy duty welding apron
  - 1 set heavy duty cutting and grinding goggle/face shield
  - 1 set heavy duty heat resistance welding gloves
  - Safety Hard head.

- Safety Shoes.
- Welding safety glasses for welders, Pipe fitters and helpers.
- Hand Gloves (leather and heat resistant).
- Rain Coats.
- Face shield.
- Fire resistance/protector
- Supporting equipment to work under rainy condition (tarpaulin, support, etc.)

### C. Detail of Material Specification

Welding plan and program must be in accordance with material specification provided by COMPANY. Detail of material specification for specific welding program is provided in below table:

No.	Item Material	Size	Specification
1	Carbon Steel Seamless Pipe	12"	Sch.80; Sch.40
		8"	Sch.40
		6"	Sch.40
2	Tee Equal	12"	Sch.80
3	Flange	12"	Class 900, Sch.80
			Class 600, Sch.80
			Class 600, Sch.40
			Class 300, Sch.40
		3"	Class 600, Sch.80
		2"	Class 600, Sch.160
4	Ring Gasket RTJ	12"; 3"; 2"	Class 600 & 900
5	Ring Gasket, Spiral Wound	12"	Class 300 & 600
6	Valve Gate	12"	Class 600
7	Valve Gate Manual	1/2"; 3/4"	Class 900
8	Elbow 45 & 90 deg LR 1.5D	12"	Sch.80
			Sch.40
9	Elbow 45 & 90 deg LR 1.5D	2"	Sch.160
10	Stud Bolt	<i>as adjusted</i>	Class 600 & 900
11	Weldolet and Thredolet	<i>as adjusted</i>	Sch 160, Class 6000
12	Pipe Nipple	<i>as adjusted</i>	Sch.80
13	Concentric Reducer	<i>as adjusted</i>	Sch.80

### D. 12" Valve Specification

Detail specification of 12" Valve is shown in below table:

No.	Detail Item	Brand	Qty
1	Valve Gate 12" x 900# RTJ Through Conduit	Foster	2
2	Valve Gate 12" x 600# RTJ	Crane	2

## **E. Quality Control**

1. CONTRACTOR shall comply with welding work quality as required by COMPANY.
2. CONTRACTOR under direction by COMPANY shall perform pre quality welder and NDE inspection.
3. CONTRACTOR under direction by COMPANY shall perform welding test.
4. Quality of the Services shall meet applicable technical drawings or manufacture.
5. If COMPANY rejects welding work as a result of CONTRACTOR fault, any cost for rectification and reparation the welding works are shall be under CONTRACTOR responsibility. Reason of rejection could be such as non-conformance and compliance of installation to the drawing, indications of defects could be based on COMPANY observations or NDE examination. At his own Cost, CONTRACTOR shall engage parties regarding welding works or process in relation to government and international standard and regulation as required under COMPANY Specification of the Services.
6. The welding equipment unit (including trucks) shall have valid and applicable registration and certified in accordance to the valid regulatory requirements.
7. CONTRACTOR who has valid international standard of ISO 9000, 9001 and 14,000 is more preferable to perform the Services.
8. CONTRACTOR shall comply to the applicable standards/codes as below:
  - AWS D1.1 Structural Welding Code - Steel
  - ASME Section VIII Div 1 ASME B & PV Specification for welding rod, electrodes, and filler metals.
  - ASME Section VIII Div 1 Rules of Construction and Design of PV.
9. CONTRACTOR shall provide appropriate tools and equipment. Unreliable or broken equipment shall be replaced by CONTRACTOR. COMPANY has the right to reject any material or equipment that CONTRACTOR use for the Services.
10. No COMPANY's property at Site shall be damaged as a result of the performance of the Services by CONTRACTOR. CONTRACTOR shall responsible at his own cost any damage to the COMPANY's property due to the CONTRACTOR's negligence, act or omission.

## **III. COMPANY Tools and Equipment**

1. CONTRACTOR is eligible to utilize COMPANY tools and equipment to do its work with no cost from COMPANY based on authorization from COMPANY representatives. CONTRACTOR is responsible to keep, preserve, and maintain COMPANY tools and equipment to be always ready to use and well preserved.
2. CONTRACTOR is responsible to repair any damage or replace any lost COMPANY tools and equipment that utilize by CONTRACTOR due to CONTRACTOR employee negligence.
3. CONTRACTOR is responsible to ensure COMPANY tool and equipment are inspected prior to be return to COMPANY. CONTRACTOR is required to inform any damage to protect the COMPANY from any claim.
4. CONTRACTOR is required to operate COMPANY tools and equipment provided to do its services which align with applied rules and regulation.

#### **IV. Hand Tools**

CONTRACTOR to guarantee that CONTRACTOR employee that work in COMPANY working area utilize standard hand tool that had been approved by COMPANY and must be refer to industrial standard that had been agreed. COMPANY approval and direction will be required if "Home Made" tools need to be utilized.

#### **V. SHE and Training Program**

1. COMPANY develops a SHE Program to be implemented, monitored and documented throughout all phases in execution of the development program. COMPANY's SHE program will consist of general and accepted safety standards in the industry, with the objective for achieving highest SHE management performance for project operation. COMPANY's SHE program will work in conjunction with CONTRACTOR's SHE program.
2. CONTRACTOR is required to provide full cooperation and teamwork in the implementation of the SHE program. CONTRACTOR will provide one personnel with role as SHE Supervisor who is responsible to lead the implementation of SHE program and to ensure that all of CONTRACTOR's personnel and COMPANY's services personnel involved in well testing operations be actively participated in SHE Program without exception.
3. CONTRACTOR is responsible for all trainings and certifications for CONTRACTOR's personnel as required by government regulation.
4. In executing his duties, CONTRACTOR SHE Supervisor will coordinate with COMPANY SHE Supervisor under supervision COMPANY representatives at site.

#### **VI. Others CONTRACTOR Responsibility**

1. Skilled and Qualified Employee
  - CONTRACTOR shall provide skilled and qualified employee as specified by COMPANY in this Exhibit B.
  - CONTRACTOR employee as specified in in this Exhibit B are required to have workplace behavior as follow:
    - Polite in doing its work, dressed, and speak.
    - Able to work in team and shall not troubling, become source of conflict, or become bad influence to workplace.
    - Neat appearances.
    - Not involving in criminal case.
2. Accommodation

CONTRACTOR shall provide proper accommodation close to working area.

### 3. Transportation

- CONTRACTOR is responsible to provide transportation of welding team and welding equipment inside working area to support 24/7 well testing operation.
- Vehicle specification for welding team is double cabin 4 wheel-drive type MT Tire for transportation inside working area.
- CONTRACTOR is responsible to provide fuel both for welding carrier truck and welding team operation car.

All light vehicles and driver qualification are required to be aligned with COMPANY standard regulation. Maximum acceptable vehicle age during contract period is 5 years as COMPANY regulation.

### 4. Personal Protective Equipment (PPE)

- CONTRACTOR is responsible to ensure that PPE provided are qualified to be used during the Contract period. CONTRACTOR is also obliged to provide replacement PPE if required during the Contract period.

## VII. COMPANY Responsibility

1. COMPANY to provide technical drawing or sketch prior to fabrication of injection, and production facility.
2. COMPANY to provide fabrication material
3. COMPANY to issued work order, work permit, JSA, and COMPANY Safety Management System.
4. COMPANY is obligated to provide monitoring and evaluation to CONTRACTOR during the Contract service period.
5. COMPANY to issued specific work order for non-routine work required by COMPANY to CONTRACTOR employee. COMPANY to provide required tools and equipment for CONTRACTOR Employee to complete its work.
6. COMPANY to provide fuel for CONTRACTOR welding equipment including CONTRACTOR generator set for welding operation at COMPANY site.
7. COMPANY to provide appropriate heavy equipment including operator during pipe setting activities.

## VIII. Company and CONTRACTOR Representatives

All formal communication during work execution shall be passed through in writing to the relevant persons as listed below:

COMPANY:

PT. Supreme Energy Rantau Dedap

Menara Sentraya Building – 23<sup>rd</sup> Floor

Jln. Iskandarsyah Raya No. 1A, Kebayoran Baru, Jakarta 12160 Indonesia

Phone: +62 21 27882222, Fax: +62 21 27882333



Company's Representative (Contract's holder):  
Alfianto Perdana Putra, Chief of Reservoir Engineer  
Email: [alfianto-perdana@supreme-energy.com](mailto:alfianto-perdana@supreme-energy.com)

Below are additional contact persons for specific matter.

For technical matters:

1. M. Tamrin, Reservoir Engineer  
Email: [tamrin-humaedi@supreme-energy.com](mailto:tamrin-humaedi@supreme-energy.com)

For contractual matters:

1. Faishal Dwi Ismail, Procurement Specialist  
Email: [faishal-dwi@supreme-energy.com](mailto:faishal-dwi@supreme-energy.com)

For invoicing matters:

1. Ketut Murniata, Accounts Payable  
Email: [ketut-murniata@supreme-energy.com](mailto:ketut-murniata@supreme-energy.com)

CONTRACTOR:

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Contractor's Representative:

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