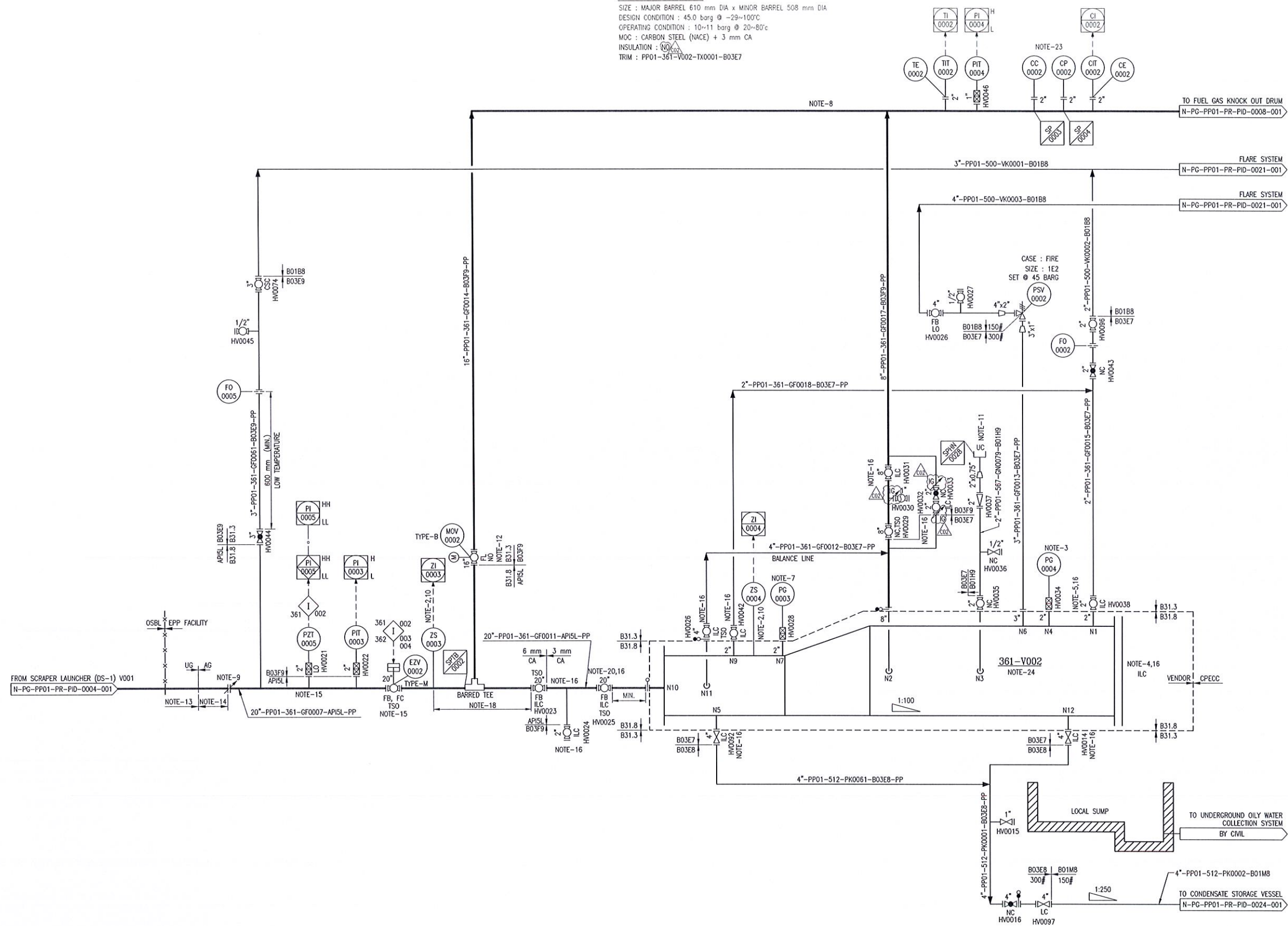


PP01-361-V002 SCRAPER RECEIVER

SIZE : MAJOR BARREL 610 mm DIA x MINOR BARREL 508 mm DIA
DESIGN CONDITION : 45.0 barg @ -29~100°C
OPERATING CONDITION : 10~11 barg @ 20~80°C
MOC : CARBON STEEL (NACE) + 3 mm CA
INSULATION : 100 mm
TRIM : PP01-361-V002-TX0001-B03E7



NOTES:

- ALL SP ITEM, TIE-IN POINT & INSTRUMENT TAG NUMBERS, EXCEPT LINE NUMBERS ON THIS DRAWING SHALL BE PREFIXED BY PROJECT BREAK DOWN ID CODE (PP01) AND SYSTEM NO. 361, UNLESS SPECIFIED OTHERWISE.
- NON INTRUSIVE SIGNALERS TO BE USED.
- PRESSURE INDICATOR TO BE VISIBLE FROM SCRAPER RECEIVER DOOR. PRESSURE RANGE TO BE LOW (ATMOSPHERIC) WITH OVER RANGE PROTECTION.
- SCRAPER RECEIVER TO HAVE QUICK OPENING END CLOSURE.
- LOCATE THIS VALVE AS CLOSE TO END CLOSURE.
- FOR PIPELINE LEAK DETECTION SYSTEM REFER TO SPECIFICATION FOR LEAK DETECTION SYSTEM DOC. NO. 100478CP-N-PG-PP01-IC-SPC-0015.
- PG-0003 SHALL BE OF FULL RANGE (0~45 barg).
- PIPELINE AND PIPING SECTION MAY EXHIBIT 2 PHASE FLOW FOR SHORT DURATIONS. PIPING SUPPORTS TO BE DESIGNED ACCORDINGLY.
- MONOLITHIC ISOLATION JOINT.
- SCRAPER SIGNALER TO BE SUITABLE FOR THE VARIOUS TYPES OF SCRAPERS.
- NITROGEN FOR PURGING FROM UTILITY STATION.
- STOP ARRANGEMENT TO BE PROVIDED TO AVOID FULL CLOSURE.
- 3LPP SHALL BE TERMINATED 300 mm BELOW GROUND LEVEL.
- ANTI-CORROSION COATING SHALL BE AS PER SPECIFICATION FOR COATING OF BENDS AND FITTINGS DOC. NO. 100478CP-N-PG-PP01-ML-SPC-0018 AND EXTENDED UP TO THE ISOLATION JOINT.
- PZT-0005 WILL CLOSE EZV-0002 IN CASE OF HIGH HIGH AND LOW LOW PRESSURE IN THE PIPELINE.
- SCRAPER ISOLATION VALVES TO HAVE KEY INTERLOCK SYSTEM TO ENSURE VALVES ARE CORRECTLY POSITIONED SUCH THAT DOOR CAN NOT BE OPENED UNLESS SECURELY ISOLATED FROM GAS SYSTEM AND VESSEL DEPRESSURIZED.
- DELETED.
- DISTANCE FROM ISOLATION VALVE TO SCRAPER SIGNALER SHALL BE AT A MINIMUM DISTANCE OF THE MAXIMUM INTELLIGENT SCRAPER LENGTH.
- VENTS TO BE LOCATED AT HIGH POINT AND DRAINS AT LOW POINT.
- THE VALVE TRIM SHALL HAVE PREN VALUE OF 25 MINIMUM.
- FIBER OPTIC BASED LEAK DETECTION SYSTEM IS PROVIDED. REFER LEAK DETECTION PHILOSOPHY 100478CEP-N-PG-PP01-IC-PHL-0002 FOR DETAILS.
- HAND SWITCH ON HARD WIRED CONSOLE IS PROVIDED IN EPP CONTROL ROOM FOR OPERATOR TO ACTIVATE ESD-1 SHUTDOWN ON CONFIRMED LEAK DETECTION
- CORROSION MONITORING FITTINGS SHALL BE LOCATED AT BOTTOM OF PIPE AT LEAST 10 PIPE DIAMETER DOWN STREAM OF BENDS; VALVES WHICH CAN CREATE TURBULENCE.
- FOR SEQUENCE OF OPERATION REFER SPECIFICATION FOR KEY MECHANICAL INTERLOCK DOCUMENT NO. 100478CP-N-PG-PP01-PL-SPC-0023.

GENERAL NOTES:

- FOR GENERAL NOTES, LEGENDS AND SYMBOLS REFER DRAWING NO. 100478CP-N-PG-PP01-PR-PID-0001 SHEETS 001 TO 017.

CO2	01.09.16	ISSUED FOR CONSTRUCTION	DX	VU	AB	SQ
CO1	19.05.16	ISSUED FOR CONSTRUCTION	DX	VU	AB	SQ
DO1	28.02.16	ISSUED FOR USE (DD)	DX	DM/VU	AB	SQ
HO1	07.01.16	ISSUED FOR HAZOP (DD)	DX	DM/VU	AB	SQ
GO1	06.10.15	ISSUED FOR REVIEW (DD)	DX	DM/VU	TT	SQ
BO2	06.08.15	APPROVED FOR COMPLETION OF FEED	DX	HM/SI	TT	SQ
BO1	26.03.15	ISSUED FOR FEED HAZOP	DX	SI/RS	TT	SQ
A01	19.02.15	ISSUED FOR COMPANY REVIEW	DX	HM/RS	TT	JF
REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D	

EARLY POWER PLANT
RUMAILA OIL FIELD
CONTRACT NO. 100478

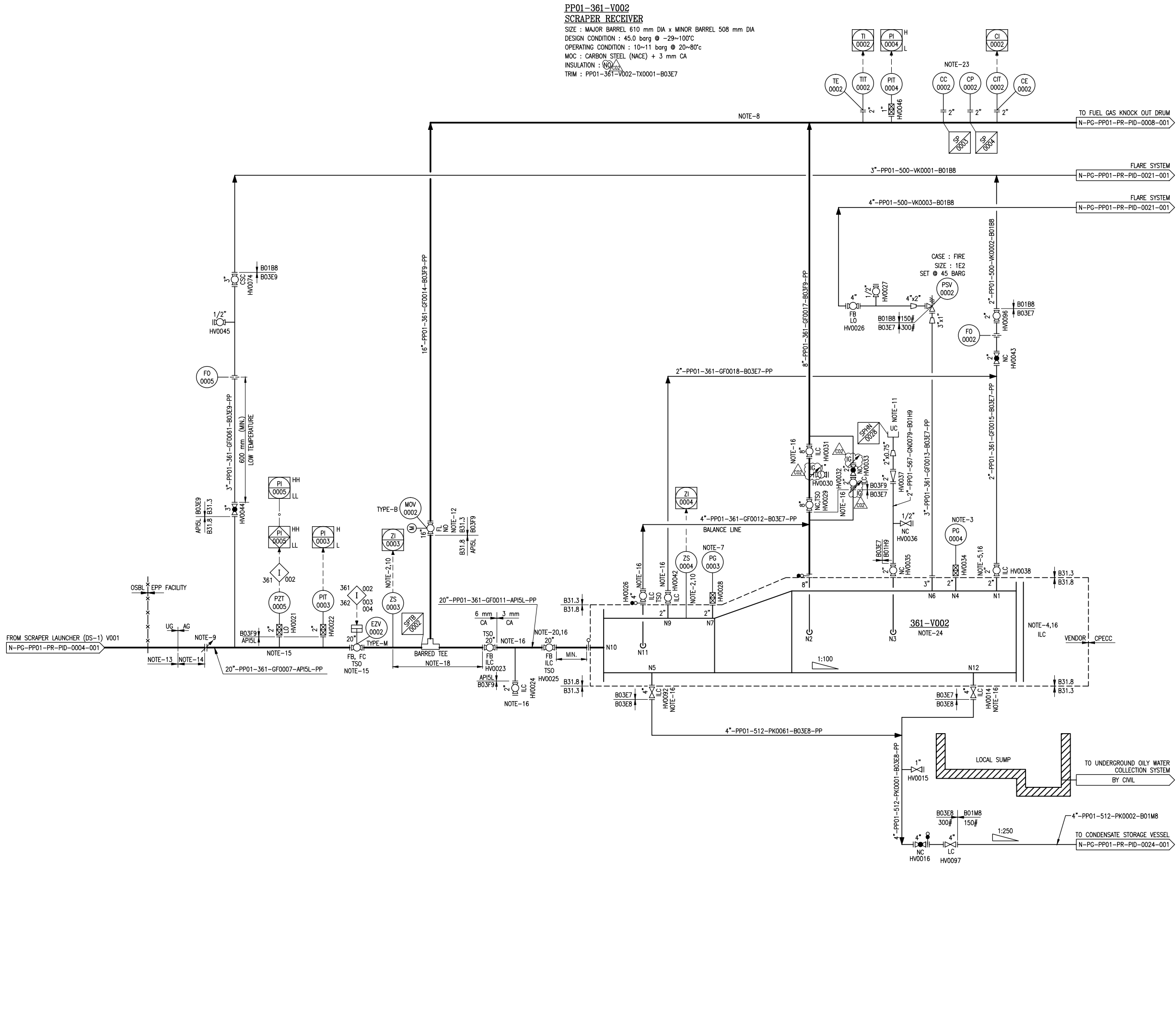
中国石化工程建设公司
CHINA PETROLEUM ENGINEERING & CONSTRUCTION CORP.

CH2MHILL

DRAWING TITLE:
PIPING AND INSTRUMENTATION DIAGRAM
SCRAPER RECEIVER (DS-1)

PROJECT NO.	100478CP	SCALE:	NONE	DWG SIZE:	A1
DRAWING NUMBER:	100478CP-N-PG-PP01-PR-PID-0005-001	SHT. NO.:	REV.		
				01/01	CO2

NOTICE: THIS DRAWING AND THE INFORMATION IT CONTAINS IS THE SOLE PROPERTY OF RUMAILA OPERATING ORGANIZATION. IT SHALL NOT BE REPRODUCED OR LENT WITHOUT THE AGREEMENT OF THE OWNER.



NOTES:

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2. NON INTRUSIVE SIGNALERS TO BE USED.
3. PRESSURE INDICATOR TO BE VISIBLE FROM SCRAPER RECEIVER DOOR. PRESSURE RANGE TO BE LOW (ATMOSPHERIC) WITH OVER RANGE PROTECTION.
4. SCRAPER RECEIVER TO HAVE QUICK OPENING END CLOSURE.
5. LOCATE THIS VALVE AS CLOSE TO END CLOSURE.
6. FOR PIPELINE LEAK DETECTION SYSTEM REFER TO SPECIFICATION FOR LEAK DETECTION SYSTEM DOC. NO. 100478CP-N-PG-PP01-IC-SPC-0015.
7. PG-0003 SHALL BE OF FULL RANGE (0~45 barg).
8. PIPELINE AND PIPING SECTION MAY EXHIBIT 2 PHASE FLOW FOR SHORT DURATIONS. PIPING SUPPORTS TO BE DESIGNED ACCORDINGLY.
9. MONOLITHIC ISOLATION JOINT.
10. SCRAPER SIGNALER TO BE SUITABLE FOR THE VARIOUS TYPES OF SCRAPERS.
11. NITROGEN FOR PURGING FROM UTILITY STATION.
12. STOP ARRANGEMENT TO BE PROVIDED TO AVOID FULL CLOSURE.
13. SLPP SHALL BE TERMINATED 300 mm BELOW GROUND LEVEL.
14. ANTI-CORROSION COATING SHALL BE AS PER SPECIFICATION FOR COATING OF BENDS AND FITTINGS DOC. NO. 100478CP-N-PG-PP01-ML-SPC-0018 AND EXTENDED UP TO THE ISOLATION JOINT.
15. PZT-0005 WILL CLOSE EZV-0002 IN CASE OF HIGH HIGH AND LOW LOW PRESSURE IN THE PIPELINE.
16. SCRAPER ISOLATION VALVES TO HAVE KEY INTERLOCK SYSTEM TO ENSURE VALVES ARE CORRECTLY POSITIONED SUCH THAT DOOR CAN NOT BE OPENED UNLESS SECURELY ISOLATED FROM GAS SYSTEM AND VESSEL DEPRESSURIZED.
17. DELETED.
18. DISTANCE FROM ISOLATION VALVE TO SCRAPER SIGNALER SHALL BE AT A MINIMUM DISTANCE OF THE MAXIMUM INTELLIGENT SCRAPER LENGTH.
19. VENTS TO BE LOCATED AT HIGH POINT AND DRAINS AT LOW POINT.
20. THE VALVE TRIM SHALL HAVE PREN VALUE OF 25 MINIMUM.
21. FIBER OPTIC BASED LEAK DETECTION SYSTEM IS PROVIDED. REFER LEAK DETECTION PHILOSOPHY 100478CEP-N-PG-PP01-IC-PHL-0002 FOR DETAILS.
22. HAND SWITCH ON HARD WIRED CONSOLE IS PROVIDED IN EPP CONTROL ROOM FOR OPERATOR TO ACTIVATE ESD-1 SHUTDOWN ON CONFIRMED LEAK DETECTION
23. CORROSION MONITORING FITTINGS SHALL BE LOCATED AT BOTTOM OF PIPE AT LEAST 10 PIPE DIAMETER DOWN STREAM OF BENDS; VALVES WHICH CAN CREATE TURBULENCE.
24. FOR SEQUENCE OF OPERATION REFER SPECIFICATION FOR KEY MECHANICAL INTERLOCK DOCUMENT NO. 100478CP-N-PG-PP01-PL-SPC-0023.

GENERAL NOTES:

1. FOR GENERAL NOTES, LEGENDS AND SYMBOLS REFER DRAWING NO. 100478CP-N-PG-PP01-PR-PID-0001 SHEETS 001 TO 017.

C02	01.09.16	ISSUED FOR CONSTRUCTION	DX	WJ	AB	SQ
C01	19.05.16	ISSUED FOR CONSTRUCTION	DX	WJ	AB	SQ
D01	28.02.16	ISSUED FOR USE (DD)	DX	DM/WJ	AB	SQ
H01	07.01.16	ISSUED FOR HAZOP (DD)	DX	DM/WJ	AB	SQ
G01	06.10.15	ISSUED FOR REVIEW (DD)	DX	DM/WJ	TT	SQ
B02	06.08.15	APPROVED FOR COMPLETION OF FEED	DX	HM/SI	TT	SQ
B01	26.03.15	ISSUED FOR FEED HAZOP	DX	SI/RS	TT	SQ
A01	19.02.15	ISSUED FOR COMPANY REVIEW	DX	HM/RS	TT	JF
REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D	

 **EARLY POWER PLANT**
RUMAILA OIL FIELD
CONTRACT NO. 100478

 **中国石油工程建设公司**
CHINA PETROLEUM ENGINEERING & CONSTRUCTION CORP.

 **CH2MHILL**

DRAWING TITLE:
PIPING AND INSTRUMENTATION DIAGRAM
SCRAPER RECEIVER (DS-1)

PROJECT NO.	100478CP	SCALE:	NONE	DWG SIZE:	A1
DRAWING NUMBER:				SHT. NO.:	REV.
100478CP-N-PG-PP01-PR-PID-0005-001				01/01	C02