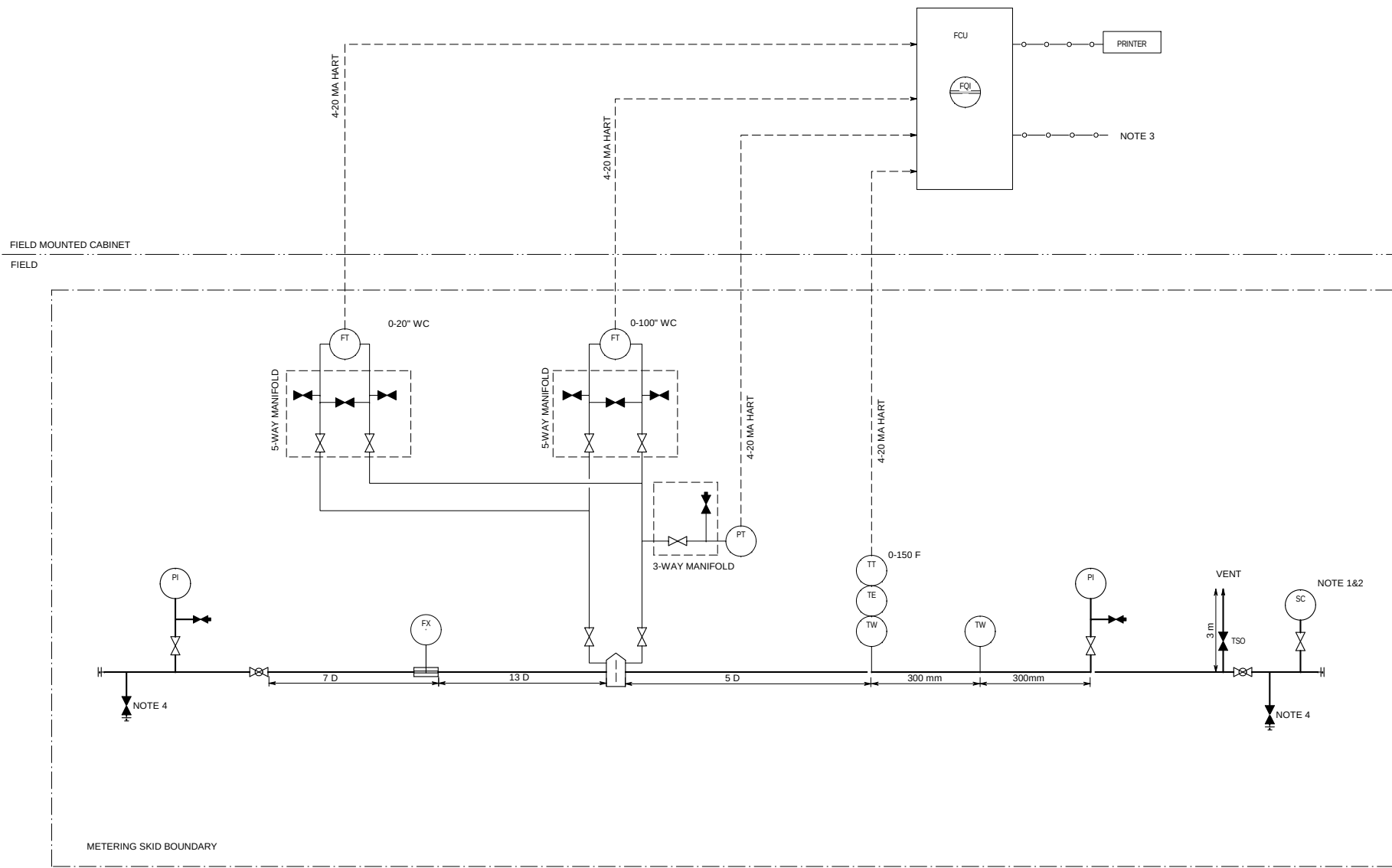




- NOTES:
1. SAMPLE CONNECTION AS PER SA STANDARD DRAWING AC-036045
 2. SAMPLE CONNECTION TO BE USED FOR THE INSTALLATION OF A COMPOSITE SAMPLER OR FOR SPOT SAMPLING
 3. RS 232 FOR SERVICE LAP TOP
 4. VALVE NOT NEEDED WHEN A TOTAL SHUTDOWN OF THE METERING SYSTEM IS ACCEPTABLE.

LEGEND	
PIPING MATERIAL SPECIFICATION SAEH-005	INSTRUMENT DEFINITION & SYMBOLS SAEH-004
PROCESS LINE	ACAFD AIR TO CLOSE
INSTRUMENT AIR LINE	ACAFS AIR TO CLOSE/UR
INSTRUMENT ELECTRICAL LINE	ACAFS AIR TO OPEN
REDUCER	ACAFS AIR TO OPEN/UR
SPECTACLE PLATE OPEN	ACAFS AIR TO OPEN/UR
SPECTACLE PLATE CLOSED	ACAFS AIR TO OPEN/UR
GATE VALVE	ACAFS AIR TO OPEN/UR
GLOBE VALVE	ACAFS AIR TO OPEN/UR
CHECK VALVE	ACAFS AIR TO OPEN/UR
DOUBLE DISC GATE VALVE	ACAFS AIR TO OPEN/UR
ANGLE VALVE	ACAFS AIR TO OPEN/UR
PRESSURE RELIEF VALVE	ACAFS AIR TO OPEN/UR
VACUUM RELIEF VALVE	ACAFS AIR TO OPEN/UR
MOTOR OPERATED VALVE	ACAFS AIR TO OPEN/UR
PISTON OPERATED VALVE	ACAFS AIR TO OPEN/UR
CONTROL VALVE	ACAFS AIR TO OPEN/UR
SOLENOID VALVE	ACAFS AIR TO OPEN/UR
ORIFICE METER	ACAFS AIR TO OPEN/UR
STRAIGHT VANES	ACAFS AIR TO OPEN/UR
VE - VIBRATION ELEMENT	ACAFS AIR TO OPEN/UR
VS - VIBRATION SWITCH	ACAFS AIR TO OPEN/UR
VT - VIBRATION TRANSMITTER	ACAFS AIR TO OPEN/UR
XL - PILOT LIGHT (NOT FOR MOTOR)	ACAFS AIR TO OPEN/UR
XS - LIMIT SWITCH	ACAFS AIR TO OPEN/UR
ZV - SAFETY SHUTDOWN VALVE	ACAFS AIR TO OPEN/UR
SHUTTER PORT	ACAFS AIR TO OPEN/UR
P.PRESS. FLOW	ACAFS AIR TO OPEN/UR
LEVEL 1 TEMP	ACAFS AIR TO OPEN/UR
ALARM	ACAFS AIR TO OPEN/UR
LOCAL PANEL MOUNTED INSTR.	ACAFS AIR TO OPEN/UR
BOARD MOUNTED INSTRUMENT	ACAFS AIR TO OPEN/UR
STATUS LIGHTS	ACAFS AIR TO OPEN/UR
PILOT LIGHT (DO NOT USE FOR MOTOR STATUS)	ACAFS AIR TO OPEN/UR
MOTOR STATUS PILOT LIGHT	ACAFS AIR TO OPEN/UR
LOCAL MOUNTED INSTRUMENT	ACAFS AIR TO OPEN/UR
MOUNTED BEHIND LOCAL PANEL	ACAFS AIR TO OPEN/UR
RACK MOUNTED (FRONT OF PANEL)	ACAFS AIR TO OPEN/UR
ELECTRICAL SUPPLY REQUIRED	ACAFS AIR TO OPEN/UR
INSTRUMENT SUPPLY REQUIRED	ACAFS AIR TO OPEN/UR
HIGH	ACAFS AIR TO OPEN/UR
LOW	ACAFS AIR TO OPEN/UR
TWO PEN RECORDER	ACAFS AIR TO OPEN/UR
VEHICLE INSTRUMENT	ACAFS AIR TO OPEN/UR
DISTRIBUTED CONTROL SHARED	ACAFS AIR TO OPEN/UR
DISPLAY SYMBOLS	ACAFS AIR TO OPEN/UR
SCS DISTRIBUTED CONTROL SYSTEM OPERATOR ACCESSIBLE IN CONTROL ROOM	ACAFS AIR TO OPEN/UR
SCS DISTRIBUTED CONTROL SYSTEM OPERATOR ACCESSIBLE IN FIELD	ACAFS AIR TO OPEN/UR
DISTRIBUTED CONTROL	ACAFS AIR TO OPEN/UR
INTERCONNECTING LOGIC	ACAFS AIR TO OPEN/UR
CONTROLLER WITH BINARY	ACAFS AIR TO OPEN/UR
OR SEQUENTIAL FUNCTIONS	ACAFS AIR TO OPEN/UR
PLC PROGRAMMABLE LOGIC CONTROLLER NORMALLY ACCESSIBLE OR REMOTE ACCESSIBLE OR INACCESSIBLE	ACAFS AIR TO OPEN/UR
PLC PROGRAMMABLE LOGIC CONTROLLER FUNCTION ON BE NORMALLY DISPLAYED ON CRT	ACAFS AIR TO OPEN/UR
LOCAL DCS OR AUXILIARY DCS LOCATION NORMALLY ACCESSIBLE TO OPERATOR	ACAFS AIR TO OPEN/UR
PLC PROGRAMMABLE LOGIC CONTROLLER IN POINT NORMALLY ACCESSIBLE BY OPERATOR	ACAFS AIR TO OPEN/UR
TT - TEMP. TRANSMITTER	ACAFS AIR TO OPEN/UR
TE - TEMP. ELEMENT	ACAFS AIR TO OPEN/UR
TS - TEMP. SWITCH	ACAFS AIR TO OPEN/UR
TI - TEMP. INDICATOR	ACAFS AIR TO OPEN/UR
TR - TEMP. RECORDER	ACAFS AIR TO OPEN/UR
TS - TEMP. SWITCH	ACAFS AIR TO OPEN/UR
TT - TEMP. TRANSMITTER	ACAFS AIR TO OPEN/UR
TD - TEMP. TRANSDUCER	ACAFS AIR TO OPEN/UR
TW - THERMOWELL	ACAFS AIR TO OPEN/UR

REFERENCE DRAWINGS		
LETTER IDENTIFICATION OF LINES	AE-036034	
PIPING SYMBOLS	AB-036227	
EQUIPMENT SYMBOLS	AB-036305	
INSTRUMENT SYMBOLS	AC-036950	
PIPING LAYOUT INDEX		
PLOT PLAN		
PROCESS FLOW DIAGRAM		
HYDROSTATIC TEST DIAGRAM		
DRAWING CONTROL FOR J.O.		
INSTRUMENT INSTALLATION SCHEDULES		
REVISION VALIDATION		
THIS REVISION NO. 00 IS COVERED, FOR ALL APPROVAL AND CERTIFICATION REQUIREMENTS, PER SAEP-334, UNDER DRAWING COMPLETION CERTIFICATE NO. 768530-0810-002		
DESIGN CERTIFICATION (DESIGN AGENCY)	REVIEW FOR KEY DRAWINGS (SAUDI ARAMCO)	OTHER
ENGCD:DATE JUL 28, 2010	CERTIFIED BY:DATE JUL 28, 2010	BYDATE JUL 28, 2010
REV.NO.	DATE	REVISION DESCRIPTION
JOB ORDER/EWO NO. 10-00912		THIS REVISION IS NOT TO BE USED FOR CONSTRUCTION UNTIL CERTIFIED AND DATED
SAUDI ARABIAN OIL COMPANY		
PIPING & INSTRUMENTATION DIAGRAM		DRAWING TYPE PID
SMALL METERING SKID (GAS)		
PANEL MOUNTED FC		
SPPID Template_Plant01		SAUDI ARABIA
PLANT NO.	INDEX	DRAWING NUMBER
990	A	AB-036181
SHT. NO.	REV. NO.	
001	00	