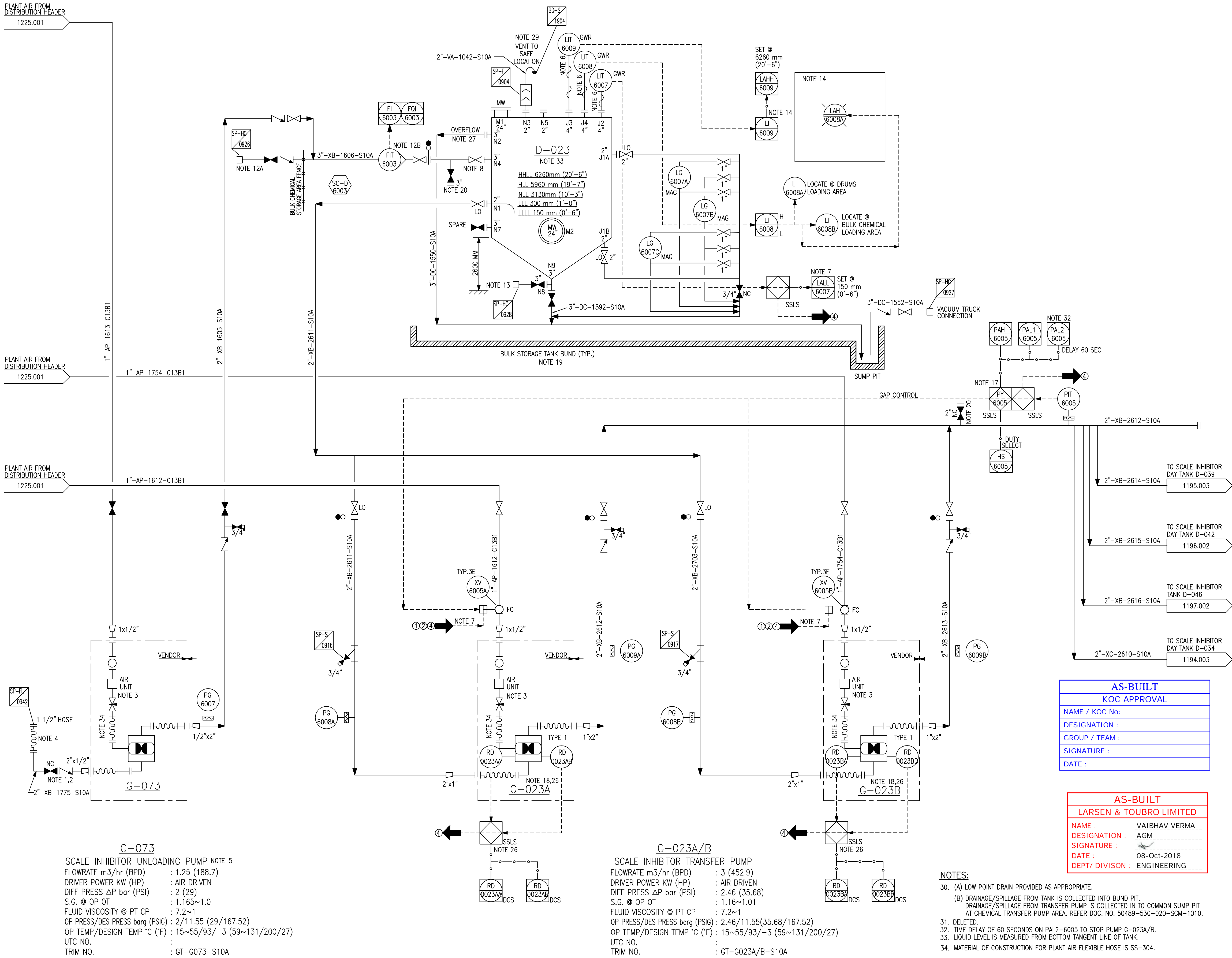


D-023
SCALE INHIBITOR BULK STORAGE TANK
CAPACITY m3 (BBLs) : 112.01 (704.5)
ID mm (ft.-in) : 4500 (14'-9")
HEIGHT (F/T)mm (ft.-in) : 6610 (21'-7")
OP PRESS /DES PRESS barg (PSIG) : ATM/ATM+STATIC HEAD
OP TEMP/DESIGN TEMP °C (°F) : 15~55/93/~3 (59~131/200/27)
UTC NO. :
TRIM NO. : DT-D023-S10A/S30A



GENERAL NOTES:

- FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PREFIXED BY 530-.
- ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PREFIXED BY 030-.
- FOR TYPICAL INSTRUMENT CONNECTION SBDV, XV, MOV AND ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .005, 006 & 007.
- FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE AND GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS & CONTROL VALVES SEE DRAWING 50489-530-020-PID-1108.001 TO 1108.010.
- DRAWING NUMBERS SHOWN IN P&ID CONTINUATION BOXES ARE ABBREVIATED SHOWING DRAWING SEQUENTIAL NUMBERS ONLY. THE FULL FORM OF THE DRAWING NUMBER IS 50489-530-020-PID-XXXX.SHT. NO.
- FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
- DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
- PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
- FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
- FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1008.

NOTES:

- FLEXIBLE HOSE WITH LONG PIPE END IS INSERTED INTO CHEMICAL DRUM FOR UNLOADING.
- UTILITY STATION IS PROVIDED IN DRUM UNLOADING AREA.
- COMBINATION FILTER, REGULATOR, PRESSURE GAUGE AND LUBRICATOR.
- FLEXIBLE HOSE WITH DRY BREAK COUPLING IS CONNECTED TO HARD PIPE WITH 2"x1 1/2" REDUCING FLANGE FOR CONNECTION TO DRUM / SEMI -BULK CONTAINER (APPLICABLE FOR ALL BULK STORAGE TANK).
- TWO SPARE PUMPS G-080 AND G-081 WITH ALL THE ANCILIARIES ARE LOCATED IN THE MAINTENANCE BUILDING.
- GWR TYPE LEVEL TRANSMITTER.
- LOW LOW LIQUID LEVEL STOPS SCALE INHIBITOR TRANSFER PUMPS G-023A/B.
- LOCATE VALVE WITHIN SIGHT OF LEVEL GAUGE.
- DELETED.
- A. CHEMICAL TANKER LOADING CONNECTION.
B. TRANSMITTER IS PROVIDED WITH LOCAL COUNTER WHICH IS RESETTABLE INSTANTANEOUS AND NON-RESETTABLE TOTAL INDICATIONS.
- CHEMICAL PUMP OUT CONNECTION TO BE EASILY ACCESSIBLE.
- PROVIDE ANNUNCIATOR SCHEME TO SUIT REQUIREMENTS AS INDICATED. TANK HIGH LEVEL ALARM IS DEDICATED TO A SPECIFIC LEVEL.
(A) ONE TEST (IN DCS) FOR ALL CHEMICAL BULK DELIVERY & DRUMS UNLOADING / TRANSFER AREA FLASHER & HORNS.
ONE RESET (IN DCS) FOR ALL CHEMICAL BULK DELIVERY & DRUMS UNLOADING / TRANSFER AREA FLASHERS.
ONE ACCEPT (IN DCS) FOR ALL CHEMICAL BULK DELIVERY & DRUMS UNLOADING / TRANSFER AREA HORNS.
(B) TANK (D-021) AREA HAS INDIVIDUAL FLASHING RED LIGHT ON TANK LEVEL HIGH: TWO (2) COMMON HORNS YA-6035B/YA-6029A ON ANY TANK LEVEL HIGH-HIGH.
(C) UNLOADING AREA-ONE COMMON FLASHER ON ANY TANK HIGH LEVEL (LAH-6034A) ONE COMMON HORN XA-6035A ON ANY TANK LEVEL HIGH HIGH.
- EYEWASH & SAFETY SHOWERS ARE TO BE INSTALLED AT LOADING CONNECTION OUTSIDE FENCE, CHEMICAL TRANSFER PUMP SHELTER AND BULK CHEMICAL STORAGE TANK/INJECTION PUMP SHELTER AREAS.
- DELETED.
- (A) HHLL IN BOTH D-034 OR D-039 OR D-042 OR D-046 STOPS DUTY AND STANDBY TRANSFER PUMPS G-023A/B BY SSLS LOGIC CLOSING XV-6005A/B.
(B) PAH-6005 STOPS DUTY AND STANDBY PUMPS BY DCS CLOSING XV-6005A/B.
(C) PAL1-6005 STARTS DUTY TRANSFER PUMP BY DCS OPENING XV-6005A OR B.
(D) PAL2-6005 STARTS STANDBY PUMP BY DCS OPENING XV-6005A OR B.
(E) ZSC OF LCV-606B, LCV-6083, LCV-6092 & LCV-6104 STOPS DUTY & STANDBY TRANSFER PUMP G-023A/B BY SSLS LOGIC.
- PUMPS ARE LOCATED IN CURBED AREA TO CONTAIN SPILLAGES.
- TANK CONCRETE BUND IS 115% CONTAINMENT OF D-023.
- NEAREST POSSIBLE BYPASS CONNECTION FOR BULK STORAGE TANK TO SCALE INHIBITOR TRANSFER PUMP DISCHARGE HEADER.
- DELETED.
- ANTI-RESISTANT CHEMICAL FLOOR BASED IS REQUIRED.
- PUMPS ARE PROVIDED WITH RUPTURE ALARM.
- OVERFLOW NOZZLE IS LOCATED ABOVE HHLL.
- PUMP & TANK AREA ARE PAVED. FLOOR IS SLOPED TOWARDS BUND PIT.
- VENT TO SAFE LOCATION ARE AS PER KOC-G-002.

Z1	ISSUED FOR AS-BUILT	BAK/CHS	AKG	SRA	RAK	08.10.18
Z0	ISSUED FOR AS-BUILT	BAK/CHS	AKG	SRA	RAK	01.09.18
01	ISSUED FOR CONSTRUCTION	BAK/CHS	AKG	SRA	RAK	23.11.16
0	ISSUED FOR CONSTRUCTION	HSB/VSA	AKG	SRA	RAK	01.04.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	21.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	JSI/SSI	AKG	SRA	RAK	03.06.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	21.02.15
A	ISSUED FOR APPROVAL	BAK/ABY	AKG	SRA	RAK	12.12.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
				APPRD.		

CONTRACTOR REVISION

KUWAIT OIL CO. **شركة النفط الكويت**
K. S. C. **ش.م.ك.**
A Subsidiary of Kuwait Petroleum Corporation

CONTRACTOR DETAILS:-
LARSEN & TOUBRO LIMITED
FARIDABAD

PROJECT TITLE:-
NEW GATHERING CENTRE GC-30
IN NORTH KUWAIT

DOCUMENT TITLE:-
PIPING & INSTRUMENTATION DIAGRAM
SCALE INHIBITOR STORAGE TANK (D-023) AND DISTRIBUTION

PROJECT NO.	DRAWING NO.	REV.	KOC DRG. NO.	REV.
EF1902	CONTRACTOR DRG. NO.	50489-530-020-PID-1187	Z1	
	SHEET NO. 1 OF 1			
	COMPANY DRG. NO.	EF1902-530-DCO-PID-0187.001	REV.	
	SHEET NO.		A4	

AS-BUILT
KOC APPROVAL
NAME / KOC No.:
DESIGNATION : AGM
GROUP / TEAM :
SIGNATURE :
DATE :

AS-BUILT
LARSEN & TOUBRO LIMITED
NAME : VAIBHAV VERMA
DESIGNATION : AGM
SIGNATURE :
DATE : 08-Oct-2018
DEPT/ DIVISION : ENGINEERING

NOTES:

- (A) LOW POINT DRAIN PROVIDED AS APPROPRIATE.
- DRAINAGE/SPILLAGE FROM TANK IS COLLECTED INTO BUND PIT.
DRAINAGE/SPILLAGE FROM TRANSFER PUMP IS COLLECTED IN TO COMMON SUMP PIT AT CHEMICAL TRANSFER PUMP AREA. REFER DOC. NO. 50489-530-020-SCM-1010.
- DELETED.
- TIME DELAY OF 60 SECONDS ON PAL2-6005 TO STOP PUMP G-023A/B.
- LIQUID LEVEL IS MEASURED FROM BOTTOM TANGENT LINE OF TANK.
- MATERIAL OF CONSTRUCTION FOR PLANT AIR FLEXIBLE HOSE IS SS-304.