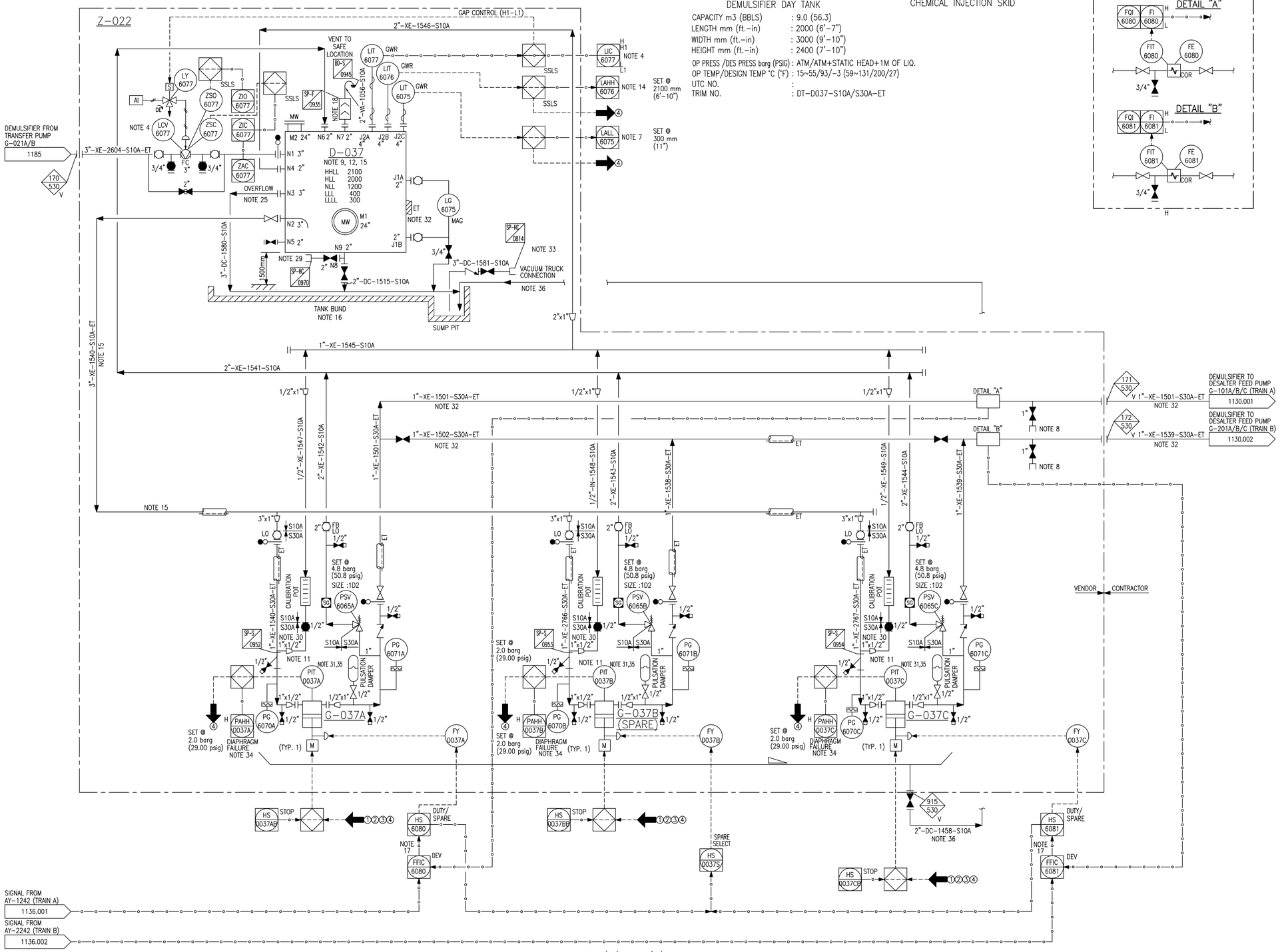

D-037 NOTE 15,32
DEMULSIFIER DAY TANK

CAPACITY m3 (BBLS)	: 9.0 (56.3)
LENGTH mm (ft.-in)	: 2000 (6'-7")
WIDTH mm (ft.-in)	: 3000 (9'-10")
HEIGHT mm (ft.-in)	: 2400 (7'-10")
OP PRESS /DES PRESS barg (PSIG)	: ATM/ATM+STATIC HEAD+1M OF LIQ.
OP TEMP/DESIGN TEMP °C (°F)	: 15~55/93/-3 (59~131/200/27)
UTC NO.	:
TRIM NO.	: DT-D037-S10A/S30A-ET

Z-022
CHEMICAL INJECTION SKID

G-037A/B(SPARE)/C NOTE 2, 7, 15
DESALTER DEMULSIFIER INJECTION PUMP

FLOWRATE l/hr (USGPH)	: 26.7 (7.1)
DRIVER POWER KW (HP)	: 0.75 (1)
DIFF PRESS ΔP bar (PSI)	: 2.8 (40.6)
S.G. @ OP OT	: 0.91~0.95
FLUID VISCOSITY @ PT CP	: 32
OP PRESS/DES PRESS barg (PSIG)	: 2.8/4.8 (40.6/69.62)
OP TEMP/DESIGN TEMP °C (°F)	: 15~55/93/-3 (59~131/27/200)
UTC NO.	:
TRIM NO.	: GT-G037A/B/C-S30A

GENERAL NOTES:

A. FOR STANDARD SYMBOLS AND NOME.LATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
B. ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530-.
C. ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030-.
D. FOR TYPICAL INSTRUMENT CONNECTION SBDV, XV, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .005, .006 & .007.
E. FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS, STRAINERS & CONTROL VALVES SEE DRAWINGS 50489-530-020-PID-1108.001 TO 1108.010.
F. 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.
G. FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
H. DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
I. PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
J. LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
K. FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
L. FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

NOTES:

1. DELETED.
2. AUTOMATIC VARIABLE PUMP STROKE ADJUSTMENT IS THROUGH DCS.
3. DELETED.
4. VALVE CLOSES AT HIGH LIQUID LEVEL H1 (SET @1980mm) VALVE OPENS AT LOW LIQUID LEVEL L1 (SET @420mm). ZSC OF LCV-6062 & ZSC OF LCV-6067 STOPS DUTY & STANDBY TRANSFER PUMP G-021A/B. BY SSLS LOGIC.

5,6. DELETED.

7. LOW LOW LIQUID LEVEL STOPS DEMULSIFIER INHIBITOR INJECTION PUMPS G-037A/B/C.
8. FLUSHING CONNECTIONS.
9. DEMULSIFIER DAY TANK COMES UNDER BUND AREA & DEMULSIFIER INJECTION PUMP IS PART OF PUMP SKID.
10. EYEWASH AND SAFETY SHOWERS ARE PROVIDED IN THE CHEMICAL INJECTION SKID AREA.
11. PROVIDE CORIOLIS FLOW MEASUREMENT AND FACILITY FOR LOCAL CALIBRATION.
12. TANK LEVEL INSTRUMENTS ARE CALIBRATED IN VOLUMETRIC UNITS.
13. DELETED.
14. HIGH HIGH LIQUID LEVEL STOPS DEMULSIFIER TRANSFER PUMP G-021A/B.
15. DEMULSIFIER DAY TANK AND ALL PUMP SUCTION/DISCHARGE PIPING IS ELECTRICALLY HEAT TRACED.
16. TANK BUND NOT IN VENDOR SCOPE. TANK CONCRETE BUND IS 115% CONTAINMENT OF D-037.
17. DELETED.
18. FLAME ARRESTOR INSTALLED WITH GOOSE NECK PIPE FOR VENT.

19,20,21. DELETED

22. CHEMICAL INJECTION RATIO CONTROLLER IS SET IN PPM.
23. DEVIATION ALARMS ARE CONFIGURED IN THE DCS TO ALARM IF ACTUAL FLOW DIFFERS FROM SET BY 10%.
24. ANTI-RESISTANT CHEMICAL FLOOR IS PROVIDED.
25. OVERFLOW NOZZLE IS LOCATED ABOVE HHLL.
26. TANK AREA ARE PAVED. FLOOR IS SLOPED TOWARDS SUMP PIT.
27. VENT TO SAFE LOCATION ARE AS PER KOC-G-002 ALONG WITH GOOSE NECK & BIRD SCREEN.
28. (A) LOW POINT DRAIN IS PROVIDED AS APPROPRIATE.
    (B) DELETED.
29. CHEMICAL PUMPOUT CONNECTION.
30. PUMP SUCTION BALL VALVE & CALIBRATION POT BALL VALVE ARE LOCATED ADJACENT TO ONE ANOTHER FOR MEASURING THE FLOW.
31. PUMPS ARE PROVIDED WITH DIAPHRAGM RUPTURE ALARM (PAHH).
32. ELECTRICAL TRACING TEMPERATURE IS MAINTAINED AT 20°C.
33. VACUUM TRUCK CONNECTION (PIPE & VALVE) : L&T SCOPE
34. PAHH STOPS DESALTER DEMULSIFIER INJECTION PUMP.
35. DIRECT MOUNTING TO THE PUMP HEAD FOR DETECTING RUPTURE OF DIAPHRAGM.
36. CHEMICAL SKID DRAIN LINE TILL INLINE TEE CONNECTION IS IN L&T SCOPE.
37. MINIMUM STROKE OF 10% IS PROVIDED FOR ALL CHEMICAL INJECTION PUMP.

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
				APPRD.		
Z0	ISSUED FOR AS-BUILT	BAK/CHS	AKG	SRA	DER	24.09.18
01	ISSUED FOR CONSTRUCTION	BAK/CHS	AKG	SRA	DER	20.12.16
0	ISSUED FOR CONSTRUCTION	HSH/CHS	AKG	SRA	RAK	06.06.16
D	ISSUED I.ORPORATED CLIENT COMMENTS	HSH/CHS	AKG	SRA	RAK	08.04.16
C	ISSUED INCORPORATED CLIENT COMMENTS	JSI/ABY	AKG	SRA	RAK	29.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	03.06.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/ABY	AKG	SRA	RAK	23.02.15
A	ISSUED FOR APPROVAL	PK/ABY	AKG	SRA	RAK	12.12.14

CONTRACTOR REVISION

KUWAIT OIL CO. K. S. C.
شركة نفط الكويت 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
CHEMICAL INJECTION SKID #2 -DEMULSIFIER
(D-037 & G-037A/B/C)

PROJECT NO.	DRAWING NO.			
EF1902	CONTRACTOR DRG. NO. 50489-530-020-PID-1195.001	REV. Z0	KOC DRG. NO.	REV.
	SHEET NO. 1 OF 4		SHEET NO.	
	COMPANY DRG. NO. EF1902-530-DCO-PID-0195.001	REV. A1		
	SHEET NO.			

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

AS-BUILT
LARSEN & TOUBRO LIMITED
NAME : VAIBHAV VERMA
DESIGNATION : AGM
SIGNATURE :
DATE : 24-Sep-2018
DEPT/ DIVISON : ENGINEERING

A1