



1. ALL THE VALVE ISOLATING TRUNK LINES FROM MANIFOLD TO BE PLUG VALVE.
2. VALVE ARE LOCATED ON HORIZONTAL PIPE.
3. ALL TRUNK LINES AND HEADERS ARE SUPPORTED FOR 3-PHASE FLOW (SLUG FLOW).
4. SPECTACLE BLIND IS ROTATED AFTER MANIFOLD OR TRUNK LINES HAS BEEN DEPRESSURISED.
5. MANIFOLD FLUSHING LINE DURING SHUTDOWN.
- 6,7,8,9. DELETED.
10. PROVIDE OPEN/CLOSED LIMIT SWITCHES FOR ALL TRUNK LINES PLUG VALVES.
11. DISSIMILAR TYPE CHECK VALVE.
- 12,13,14,15. DELETED.
16. FIRST DRAIN ISOLATION VALVE IS MINIMUM FROM HEADER.
17. LOCKED CLOSED VALVES TO BE CLOSE TO THE HEADER.
18. FINAL DRAINING TO EMPTY REMAINING FLUID WITHIN THE LINE WORK BY GRAVITY.
19. DELETED.
20. FLOW SWITCH ARE PADDLE TYPE. STRAIGHT LENGTH ARE UPSTREAM 10D & DOWNSTREAM 5D MINIMUM.
21. WASH WATER IS CONNECTED TO THE NEAR BY UTILITY STATION.
6" WASH WATER CONNECTION IS PROVIDED IN UTILITY STATION.
22. TAKE-OFF POINT FROM HEADER SUCH THAT DEAD LEG ON THE HEADER SHOULD BE MINIMUM.
23. CC & CP SHALL BE INSTALLED AT MINIMUM DISTANCE OF 10D (DIAMETER OF PIPE) FROM THE CHEMICAL INJECTION POINT.
24. FOR CORROSION MONITORING STATIONS (CMS):-
 - (a) CMS SHALL BE INSTALLED AS PER KOC-MP-035.
 - (b) PROPER ACCESS PIT OR PLATFORM ARE PROVIDED FOR RETRIEVAL OF COUPON/PROBE.
 - (c) MATERIAL FOR CMS ARE PROCURED FROM KOC APPROVED VENDOR LIST.
 - (d) CMS SHALL BE LOCATED IN BOTTOM 6 O'CLOCK POSITION.
 - (e) TAG NUMBERING OF CMS IS AS PER APPENDIX-C OF KOC-MP-035.
25. METAL SEATED VALVE ARE USED.
26. DRAIN OF SAMPLE BOMB IN SC-E TYPE IS CONNECTED TO PRESSURIZED DRAIN SYSTEM.
27. 3 NO. OF 20" SLOT PRESSURE RATING (600#) FOR FUTURE CONNECTION.
28. SUITABLE DRAINING ARRANGEMENT HAS BEEN PROVIDED TO AVOID DEAD LEGS IN MANIFOLD.
29. * METAL SEATED VALVE ARE USED (WHERE DOUBLE DRAIN / BLEED VALVE INDICATED, ONLY FIRST ISOLATION VALVE IS METAL SEATED).
30. REFER OPERATION & MAINTENANCE MANUAL DOC. NO. 50489-530-020-MAN-1001 FOR STOP OPERATION OF MOV-0001 TO 0006.
31. DRAIN POINT IS USED TO DRAIN THE HOLD UP BETWEEN CHECK VALVE & MOV AT DEPRESSURISING CONDITION.

Z1	RE-ISSUED FOR AS-BUILT	CHS	AKG	SRA	RAK	07.10.18
Z0	ISSUED FOR AS-BUILT	CHS	AKG	SRA	RAK	28.08.18
Z3	ISSUED FOR CONSTRUCTION	CHS	AKG	SRA	RAK	22.04.18
02	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	08.12.16
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	07.12.16
0	ISSUED FOR CONSTRUCTION	HSH/VSA	AKG	SRA	RAK	08.04.16
E	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	07.03.16
D	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VS	AKG	SRA	RAK	29.12.15
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	16.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	30.05.15
B	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	11.02.15
A	ISSUED FOR APPROVAL	BAK/VSA	AKG	SRA	RAK	29.11.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM APPRD.	DATE

<p>CONTRACTOR REVISION</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <p>KUWAIT OIL CO. K. S. C.</p> </div> <div style="text-align: center;">  </div> <div style="text-align: right;"> <p>شركة نفط الكويت ش.م.ك.</p> </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div style="text-align: left; font-size: small;"> <p>إحدى شركات مجموعة الكويت للنفط A Subsidiary of Kuwait Petroleum Corporation</p> </div> <div style="text-align: right; font-size: small;"> <p>إحدى شركات مجموعة الكويت للنفط A Subsidiary of Kuwait Petroleum Corporation</p> </div> </div>
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CONTRACTOR DETAILS:-

 LARSEN & TOUBRO LIMITED
FARIDABAD

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

DOCUMENT TITLE:--				
PIPING & INSTRUMENTATION DIAGRAM TRUNK LINE MANIFOLD				
PROJECT NO.		DRAWING NO.		
EF1902	CONTRACTOR DRG. NO. 50489-530-020-PID-1110	REV.	KOC DRG. NO.	REV.
	SHEET NO. 1 OF 1	Z1	SHEET NO.	
	COMPANY DRG. NO. EF1902-530-DCO-PID-0110.001	REV.		
	SHEET NO.	A4		