



NOTES

1. PIPING TO BE INSTALLED WITH HIGH POINT VENT AND LOW POINT DRAIN. PIPING TO AVOID AS POSSIBLE STAGNANT REGIONS OR DEAD LEGS.

2. COMMON DRIP TRAY FOR ALL MEMBRANE INLET NOZZLES.

3. COMMON DRIP TRAY FOR ALL MEMBRANE OUTLET NOZZLES.

4. ALARM INDICATION TO ALERT OPERATOR TO CLEAN THE MEMBRANES. SET 10% ABOVE NORMALIZED MEMBRANE FEED PRESSURE.

5. DUMP/ RETURN VALVE OPERATION ARE INTER LOCKED. IE IN CASE RETURN VALVE CLOSURES XV-42178 OR FAILS, DUMP VALVE OPENS AUTOMATICALLY. SIMULTANEOUSLY, XV-42178 SLOW CLOSING, PV-42168 QUICK OPENING. SAMPLING POINT WITH OUTLET AT LOW ELEVATION. EL 4800. ALL SAMPLING POINTS TO BE ACCORDING TO VDS SP-1033.

7. LOCAL TEMPERATURE INDICATION PRIOR TO START UP.

8. VALVE FITTED WITH MECH STOP TO PREVENT CLOSURE DURING OPERATION.

9. 50 STRAIGHT LENGTH UPSTREAM AND 30 STRAIGHT LENGTH DOWNSTREAM FLOWMETER (MAG FLOW).

10. PV PLACED AT HIGHER ELEVATION THAN PERMEATE PIPE.

11. PV IS IN LIEU OF A MULTIHOLE RESTRICTION ORIFICE.

12. SYSTEM DESIGN 55°C, MEMBRANE DESIGN 45°C. ABOVE THIS TEMPERATURE THE MEMBRANES WILL DETERIORATE.

13. DELETED.

14. DETAILS OF DRAIN & SHOWERS ARRANGEMENT FROM ROOF ON P&ID MC2-008.

15. DELETED.

16. DELETED.

17. CALCULATION ACCORDING TO NORMALIZED PRESSURE, TEMPERATURE T=1403 AND FOULING DEGREE.

18. SET POINT FOR FIC-42095 IS CALCULATED ACCORDING TO FIC-42171 X 0.33. TWO SEPARATE LOOPS WITH FQ ARE REQUIRED.

19. BYPASS CONTROL VALVE TO BE USED ONLY DURING START-UP.

20. DIAPHRAGM SEAL TO BE SUPPLIED WITH FLUSHING RING.

21. REFER TO P&ID LEGEND 168397-100-PR-PI-0001-01 TO 0012-01.

22. ALL MANUAL VALVES CAN BE LOCKED WITH PAD LOCK OR CAR SEAL.

23. PRESSURE DIFFERENTIAL MEASUREMENT TO PROTECT THE SR MEMBRANES, WHICH CANNOT TOLERATE REVERSE BACK PRESSURE.

24. FQ IS CALCULATING THE TOTAL FLOW TO INLET OF SR TRAIN.

25. FAIL MODE: LAST POSITION.

26. REFER TO P&ID 168397-200-PO-3363-MC2-013 FOR DETAILS.

27. REFER TO P&ID 168397-200-PO-3363-MC2-012 FOR DETAILS.

28. SEQUENCE BEFORE STARTING A CIP CLEANING REFER TO MC2-014. NOTE 4.

29. 12 barg DESIGN PRESSURE FOR PVC CONNECTIONS.

30. VALVE TO BE CSO DURING CIP CLEANING TO PROTECT SRU MEMBRANES FROM REVERSE BACK PRESSURE.

31. REFER TO P&ID 168397-200-PO-3363-MC2-014 FOR DETAILS.

32. TUNDISH LOCATED AT DECK LEVEL 1.

33. STAGE 1 AND STAGE 2 HIGH DP TRIPS ARE FIXED SETTINGS INCORPORATING MAXIMUM RECOMMENDED MEMBRANE DP AND PIPING FRICTIONAL LOSSES AT TURNDOWN FLOW.

34. REFER TO P&ID NO. 168397-100-PR-PI-0012-02 FOR SAMPLE CONNECTION DETAILS.

TIE-IN	SIZE	TYPE	RATING	SERVICE
TP10-2	8"	RF	SCHEDULE 10S, #150	SEAWATER

SIEMENS REV:

51PO-03733.410-H-005

09

REV	DATE	DESCRIPTION	DRN	CHK	APP	CLT
09	08.07.2013	AS-BUILT	VM	DC	MM	CB
08	22.08.2012	RE-ISSUED FOR CONSTRUCTION	VM	DC	MM	CB
24	28/5/18	AS-BUILT FOR GMOC0108	LM	AC	AC	TR
23	06.12.2017	AS-BUILT FOR GMOC0110	LM	AC	AC	TR
22	03.11.2017	AS-BUILT FOR GMOC0213	LM	SB	SB	TR
Z1	26.10.2016	AD-HOC AS-BUILT	LM	AH	AH	RA

Nexen Petroleum (U.K.) Limited

Golden Eagle Area Development

VENDOR : SIEMENS (AMEC FW)

EQUIPMENT TITLE: PIPING & INSTRUMENT DIAGRAM (P&ID)

SR MEMBRANE UNIT (F-4205B)

EQUIPMENT TAG NO(S) : F-4205B

GEAD Vendor Document Number

Purchase Order Number Doc Type Seq. Sh. Rev. DATE

168397-200-PO-3363 - MC2 - 005 - 02 Z4

INCLUDES DOCUMENT CODES : TOTAL SHEETS : 2 OF 2

F Final (accepted) - manufacturing may proceed.

A Qualified Release - revise and re-submit. Manufacturing may proceed subject to incorporation of comments.

R Rejected - revise and re-submit. Manufacturing may not proceed.

I Accepted for information only.

Review of Vendor documents does not relieve Vendor of the responsibility for correctness under the Purchase Order. Permission to proceed does not constitute acceptance of design, detail and calculations, test methods or materials developed or selected by the Vendor and does not relieve the Vendor from full compliance with the Purchase Order or any other obligations, nor detract from any of the Purchaser's rights.

Engineer : Date:

FILE NAME: S:\PROJECT\NEXEN\GOLDEN EAGLE\WORKING\OPEN\MC20108 - SRU TESTING OF SRP TRAINS\PROCESS\NEXEN\GOLDEN EAGLE\MC205-02_Z4.DWG (PRINTED: 26/03/2018 13:51:25)