

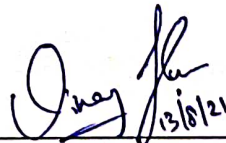
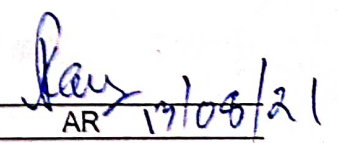


TECHNICAL AMENDMENT NO.:B366-999-YA-MR-2680-1

FOR

ANALYSER SYSTEMS

(PROJECT: SRU III- PROJECT OF IOCL PARADIP REFINERY)

13.08.2021	Issued as Amendment	 VK	 JJ	 AR
Date	Purpose	Prepared By	Reviewed By	Approved By



SUBJECT : ANALYSER SYSTEMS
MR NO. : B366-999-YA-MR-2680 REV A

The terms, conditions of **Material Requisition#B366-999-YA-MR-2680** stand modified to the extent indicated under column “MODIFICATIONS/ ADDITIONS/ DELETIONS”. All other terms & conditions etc. of Material Requisition issued earlier shall remain unaltered.

Sl. No	Section No. of MR	Document No.	Page No.	Clause / Item No.	Modifications/Additions/Deletions
1.		B366-999-YA-MR-2680_REV A		Tag No. 090-AT-0320 Datasheet No. B366-090-YA-DS-6008	MODIFICATION Sl. No. 47 (a) in GC Datasheet No. B366-090-YA-DS-6008 stands modified and shall be read as follows: “Output of Control Unit: a) 4-20 mA DC isolated linear w.r.t specified ranges for EACH measured component as tabulated below: i. Carbon Monoxide ii. Methane iii. Ethane iv. Propane v. n-butane vi. n-Pentane vii. n-Hexane viii. Hydrogen ix. Hydrogen Sulphide x. Ethylene (C2=) xi. Propylene (C3=) xii. Butylene (C4=)

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2.		B366-999-YA-MR-2680_REV A		Tag No. 090-AT-0320 Datasheet No. B366-090-YA-DS-6008	MODIFICATION Further Note-4 in GC Datasheet No. B366-090-YA-DS-6008, following Table-1 shall be referred for the stream composition and ranges. Gas Chromatograph shall be suitable for all the 3 types of fuel gases.

TABLE-1 SAMPLE COMPOSITION					
QUALITY	UNITS	TYPE OF FUEL GAS			RANGE OF MEASUREMENT
		FULL REFINERY	FUELS REFINERY	FUEL GAS	
NET CALORIFIC VALUE(LHV)	Kcal/Kg	11070	11716	-	NA
MOLECULAR WEIGHT	-	20.1	21.1	-	NA
COMPONENT					
NITROGEN (N2)	Mol %	0.7	0	5.70	NA
CARBON MONOXIDE (CO)	Mol %	4.0	0	0.30	0 - 10
METHANE (C1)	Mol %	80.48	38.95	30.30	0 - 100
ETHANE (C2)	Mol %	7.7	13.64	15.80	0 - 30
PROPANE (C3)	Mol %	4.48	1.29	0.60	0 - 10
n-BUTANE (C4)	Mol %	2.4	0.98	1.20	0 - 5
n-PENTANE (C5+)	Mol %	0.22	0	1.20	0 - 5
n-HEXANE (C6+)	Mol %	0.02	0	0	0 - 1
HYDROGEN (H2)	Mol %	0	13.15	23.70	0 - 50
HYDROGEN SULPHIDE (H2S)	Mol %	0.005	0	0.005	0 - 1
ETHYLENE (C2=)	Mol %	0	31.99	16.90	0 - 30
PROPYLENE (C3=)	Mol %	0	0	3.5	0 - 10
BUTYLENE (C4=)	Mol %	0	0	0.1	0 - 5
WATER (H2O)	Mol %	0	0	0.6	NA
OXYGEN (O2)	Mol %	0	0	0.20	NA

Note: Bidder shall submit the signed & stamped copy of this Technical Amendment along with their offer.