

Job Card No. - RDKL/2324/WW/J00725, J00735

Requisition No. - RDKL/WW/2324/SR00122, SR00123

Parameters - COD

Total No. of Samples - 02 + 03

Date of Allocation - 20.02.24

Date of Sample Analysis - 20.02.24

Due Date of Result Submission - 27.02.24

Name of the Supervisor - Md. A. Rafique
A.K. Dubey

Test Method - IS 5182 (Part 2): 2001

APHA 23rd Ed. 5220 B. Part 5000.544 to 545

COD

Sl. No.	Requisition No.	Sample Code	Sample Vol. (ml)	Volume of FAS Consumed (ml)			Result (mg/L)
				IR (ml)	FR (ml)	Diff (ml)	
01.	-	Blank (dH ₂ O)	20	0.0	24.8 = 24.8	} Avg = 24.8	
02.	-	Blank (dH ₂ O)	20	0.0	24.8 = 24.8		
03.	SR00122	WW/L00412	20	24.8	46.8 = 22.0		112
04.	"	WW/L00413	20	0.0	23.1 = 23.1		68
05.	SR00123	WW/L00408	20	23.1	44.0 = 20.9		157
06.	"	WW/L00409	20	0.0	20.0 = 20.0		193
07.	"	WW/L00410	20	20.0	41.7 = 21.7		125
08.	-	KHP (500mg/L)	20	0.0	12.9 = 12.9		478

Standardisation of FAS (Ferrous Ammonium Sulfate) using 0.25(N) K₂Cr₂O₇ soln:

Sl. No.	Vol. of Standard K ₂ Cr ₂ O ₇ (ml)	Vol. of FAS consumed (ml)			Concentration (Normality)
		IR (ml)	FR (ml)	Diff (ml)	
01.	10	0.0	24.9 = 24.9		= 0.1004(N)
02.	10	0.0	24.9 = 24.9		= 0.1004(N)

∴ Average Concentration of FAS = 0.1004(N)

Calculation: $COD (mg/L) = \frac{(A - B) \times N \times 8000}{Sample\ Vol. (ml)}$

- A = Vol. of FAS consumed for Blank
- B = Vol. of FAS consumed for Sample
- N = Normality of used FAS

Indrani Nath
23.02.24

23/02/24