

**TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED**

(An ISO 9001:2008 Certified Company)

OIL TESTING LABORATORY :: VIJAYAWADA**TRANSFORMER OIL TEST REPORT****SS Name : PRATHIPADU-220/132KV-SUBSTATION**

OTR No: VJA10002140

Ref: OTLVJA2303273

Equipment: 220/132KV-160MVA-POWER TRANSFORMER-III (BOTTOM)

Equipment Details**SAMPLE Details**

Make : BHEL

Capacity : 160 MVA

Sample Dt : 24.03.2023

Oil Temp : 58.0°C

Sl.no : 2038219

Equipment : 10070921

Recpt Dt : 25.03.2023

Load@Sample : 72.17

YOM : 2014

HV level : 220KV

Test Dt : 27.03.2023

Total Quantity of Oil in(Litres)

Equipment : 0.00

Container : 2.00

TEST RESULTS

Reference standard as per IS: 1866-2017

Sl.no	Parameter	Measured Value	UoM	Violation limit	Test method
01	Ethane(C ₂ H ₆)	ND	ppm		
02	Acetylene(C ₂ H ₂)	ND	ppm		
03	Appearance & Colour	CLEAR			
04	Methane(CH ₄)	9.599	ppm		
05	Oxygen (O ₂)	771.685	ppm		
06	B.D.V@ 61.8Hz,with stirrer)	72.2	kV	>50.00	
07	Water content	7.6	mg/kg	<20.00	
08	Ethylene(C ₂ H ₄)	6.636	ppm		
09	Carbon Monoxide (CO)	543.743	ppm		
10	Carbon Dioxide(CO ₂)	4434.539	ppm		
11	Nitrogen (N ₂)	2636.723	ppm		
12	Resistivity @ 90 °C	253.44	GOM	>3.00	
13	Hydrogen (H ₂)	11.442	ppm		
14	Tan Delta @ 90 °C, 55Hz	0.000551		<0.200	

Environmental Conditions

Room temp

25.0° C

Rel Humidity

40

NT NOT TESTED**ND**

NOT DETECTED

Test conditions for BDV:

Oil Temp: 26.0° C

freq:61.8 Hz,

Electrode type:Hemispherical brass,

6 test values: 84.9,84.0,73.7,73.5,70.1,46.9

Test conditions for DDF:

elec.stress: 1kv/mm,

freq: 55 HZ.

Test conditions for Resistivity:

elec.stress: 250kv/mm,

electrification time: 60 sec.