



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION



Machine Id
CATERPILLAR MAS71483
Component
Diesel Engine
Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique.
DISCLAIMER: Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

WEAR

All component wear rates are normal.

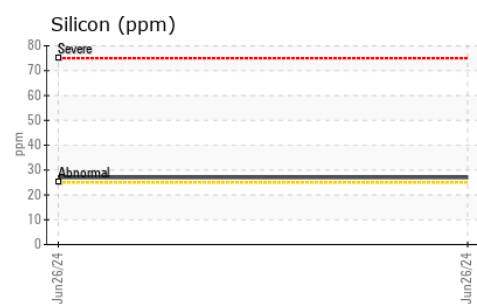
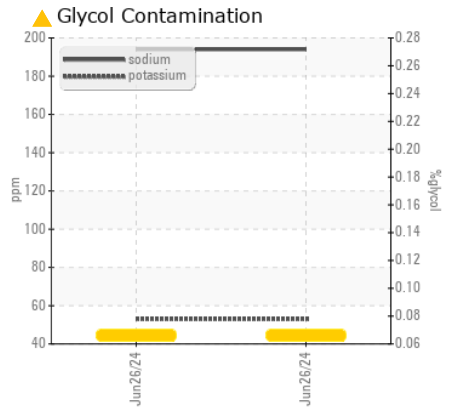
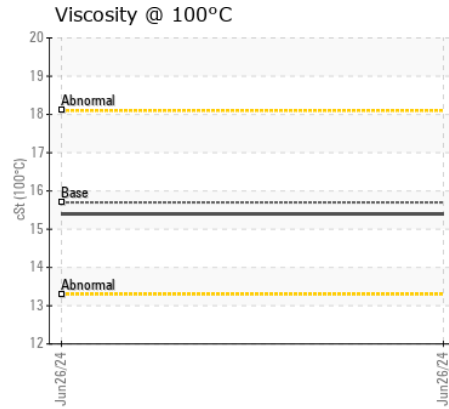
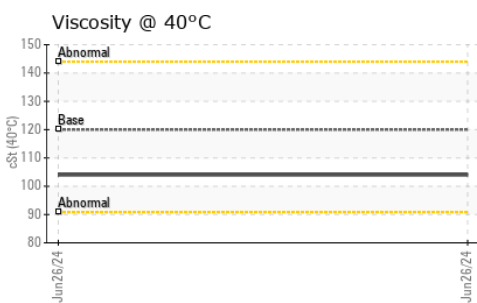
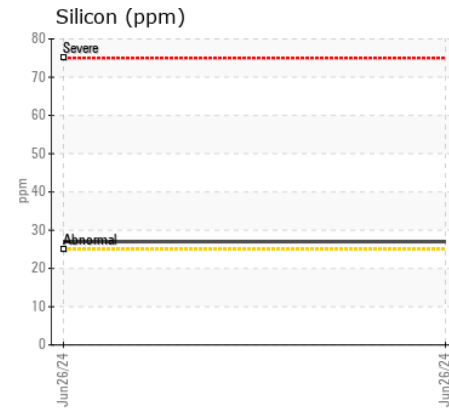
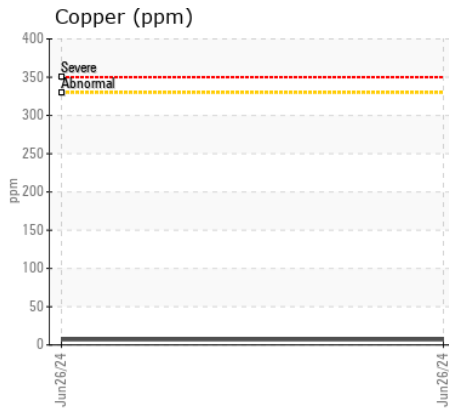
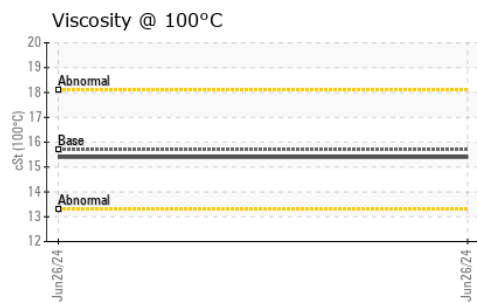
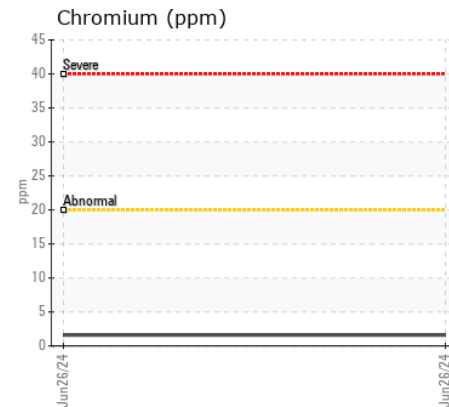
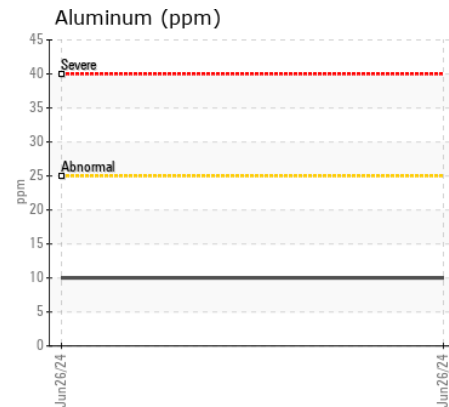
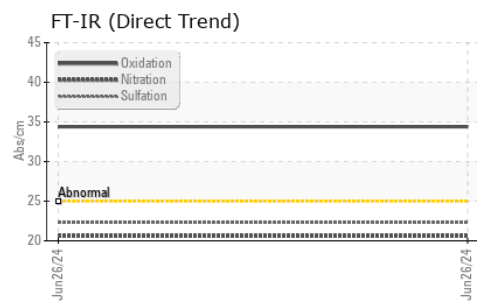
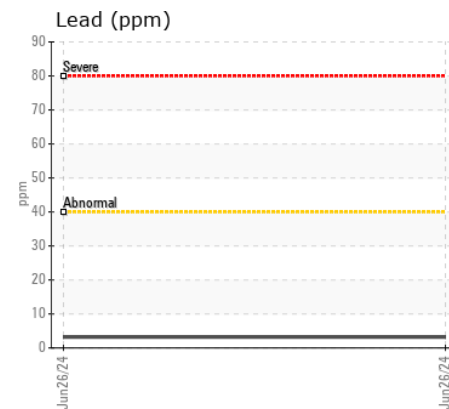
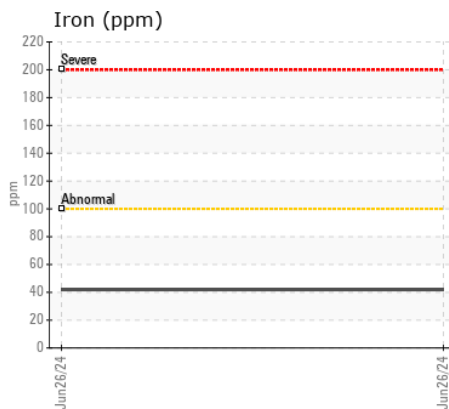
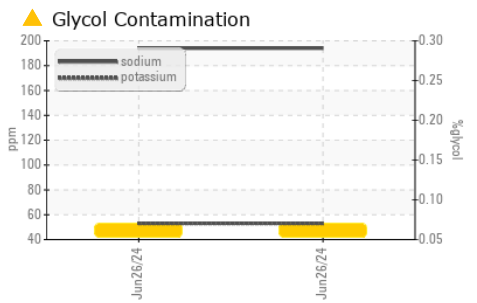
CONTAMINATION

Test for glycol is positive. There is a moderate concentration of glycol present in the oil. Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0022706	---	---
Sample Date		Client Info		26 Jun 2024	---	---
Machine Age	kms	Client Info		0	---	---
Oil Age	kms	Client Info		15000	---	---
Filter Age	kms	Client Info		15000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185(m)	>100	42	---	---
Chromium	ppm	ASTM D5185(m)	>20	2	---	---
Nickel	ppm	ASTM D5185(m)	>2	<1	---	---
Titanium	ppm	ASTM D5185(m)	>2	1	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>25	10	---	---
Lead	ppm	ASTM D5185(m)	>40	3	---	---
Copper	ppm	ASTM D5185(m)	>330	7	---	---
Tin	ppm	ASTM D5185(m)	>15	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	27	---	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 53	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	ASTM D7922*		▲ 0.07	---	---
Soot %	%	ASTM D7844*	>3	0.1	---	---
Nitration	Abs/cm	ASTM D7624*	>20	20.6	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3	---	---
Silt	scalar	Visual*	NONE	VLITE	---	---
Debris	scalar	Visual*	NONE	▲ LIGHT	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185(m)		● 194	---	---
Boron	ppm	ASTM D5185(m)	35	53	---	---
Barium	ppm	ASTM D5185(m)	0	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	0	9	---	---
Manganese	ppm	ASTM D5185(m)	0	1	---	---
Magnesium	ppm	ASTM D5185(m)	10	91	---	---
Calcium	ppm	ASTM D5185(m)	2340	1874	---	---
Phosphorus	ppm	ASTM D5185(m)	1110	807	---	---
Zinc	ppm	ASTM D5185(m)	1210	997	---	---
Sulfur	ppm	ASTM D5185(m)	3890	2625	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	34.4	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	120.	104	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	15.4	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	156	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0022706 **Received** : 27 Jun 2024
Lab Number : 02644466 **Tested** : 03 Jul 2024
Unique Number : 5802005 **Diagnosed** : 03 Jul 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: BottomAnalysis, FILTERPATCH, Glycol, KV40, VI, Viscosity)

STEER ENTERPRISES LTD
 7051 COUNTY ROAD 9
 STAYNER, ON
 CA L0M 1S0
 Contact: Service Manager
 caitlyn@steer.ca

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.