

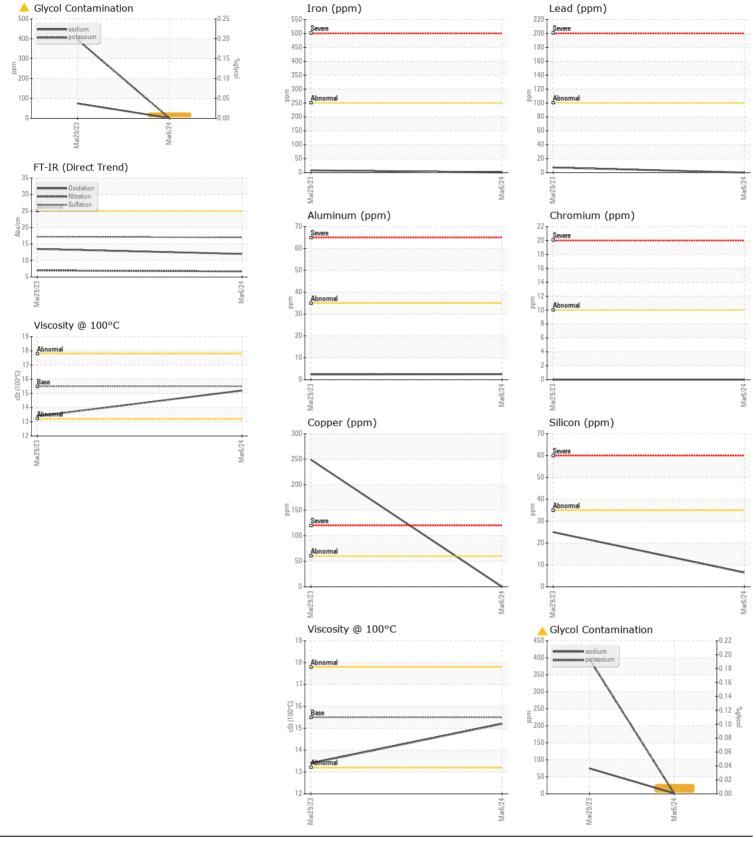
Machine Id **PERKINS 1579 BRONTE - TIT Diesel Engine** TOTAL FINA RUBIA TIR 7900 15W40 (--- GAL)

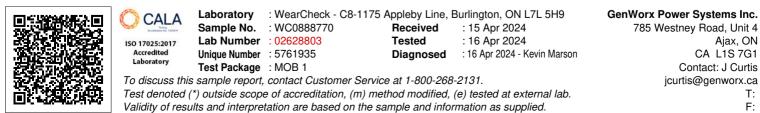
RECOMMENDATION

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.	Sample Number		Client Info		WC0888770	WC0787081	
	Sample Date		Client Info		06 Mar 2024	29 Mar 2023	
	Machine Age	hrs	Client Info		477	464	
	Oil Age	hrs	Client Info		13	0	
	Filter Age	hrs	Client Info		13	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				MARGINAL	SEVERE	
WEAR	Iron	ppm	ASTM D5185(m)	>250	<1	8	
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)		0	0	
	Nickel	ppm	ASTM D5185(m)		0	1	
	Titanium	ppm	ASTM D5185(m)		0	<1	
	Silver	ppm	ASTM D5185(m)	>3	0	<1	
	Aluminum	ppm	ASTM D5185(m)	>35	2	2	
	Lead	ppm	ASTM D5185(m)	>100	0	7	
	Copper	ppm	ASTM D5185(m)	>60	0	4 249	
	Tin	ppm	ASTM D5185(m)	>5	0	<1	
	Vanadium	ppm	ASTM D5185(m)		0	0	
CONTAMINATION	Silicon		ASTM D5185(m)	>35	6	25	
Test for glycol is positive. There is a light concentration of glycol present in the oil.	Potassium	ppm	ASTM D5185(m)	>20	0 <1	∠5 ▲ 396	
	Fuel	ppm	WC Method		<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol	%	ASTM D7922*		▲ 0.014	▲ >.70	
	Soot %	%	ASTM D7844*	>3	0	0	
	Nitration	Abs/cm	ASTM D7624*	>20	6.7	7.0	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	17.0	17.2	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION The condition of the oil is acceptable for the time in service. The oil is no longer serviceable due to the presence of contaminants.	Sodium	ppm	ASTM D5185(m)		1	75	
	Boron	ppm	ASTM D5185(m)		74	45	
	Barium	ppm	ASTM D5185(m)		0	0	
	Molybdenum	ppm	ASTM D5185(m)		86	119	
	Manganese	ppm	ASTM D5185(m)		0	4	
	Magnesium	ppm	ASTM D5185(m)		21	220	
	Calcium	ppm	ASTM D5185(m)	3290	2090	1833	
	Phosphorus	ppm	ASTM D5185(m)	1200	981	993	
	Zinc	ppm	ASTM D5185(m)	1400	1098	1137	
	Sulfur	ppm	ASTM D5185(m)	4000	3082	2875	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	12.0	13.5	
	Visc @ 100°C	cSt	ASTM D7279(m)	15.5	15.2	13.4	

CONTAMINATION

Submitted By: J Curtis Page 1 of 2





T: F: Submitted By: J Curtis