



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
KENWORTH 226524
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (11 GAL)

RECOMMENDATION

We advise that you check for visible metal particles in the oil. No corrective action is recommended at this time. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. (Customer Sample Comment: This is a short mileage test after results of previous test showing visible metals and fuel dilution)

WEAR

Light concentration of visible metal present.

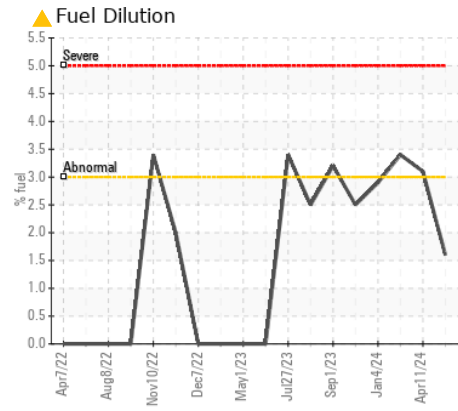
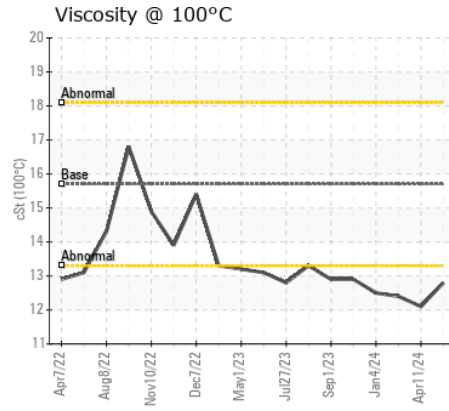
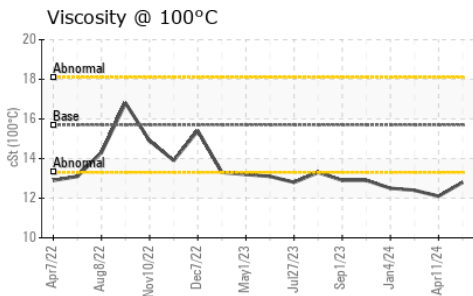
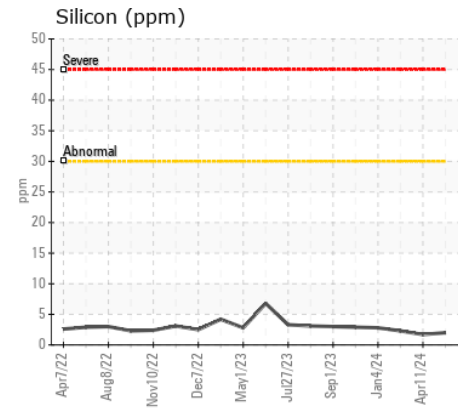
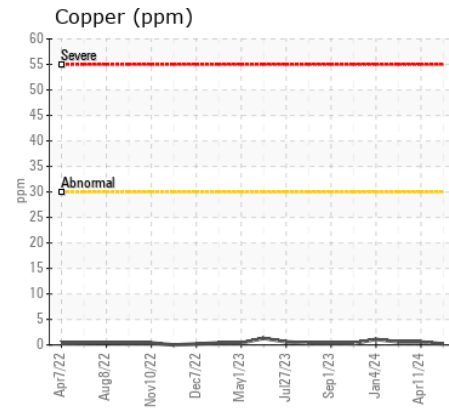
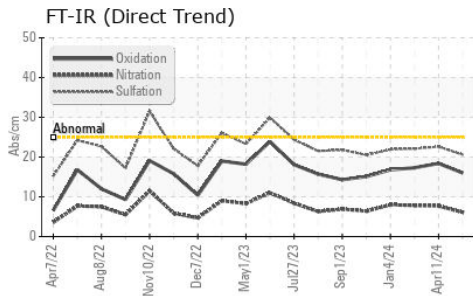
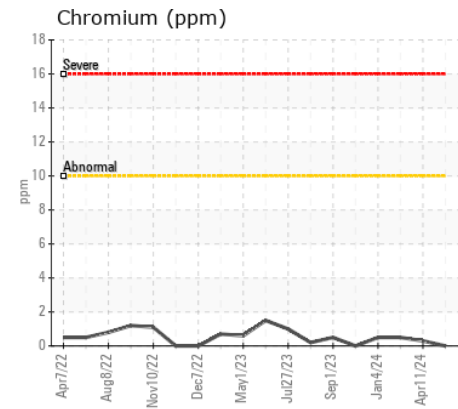
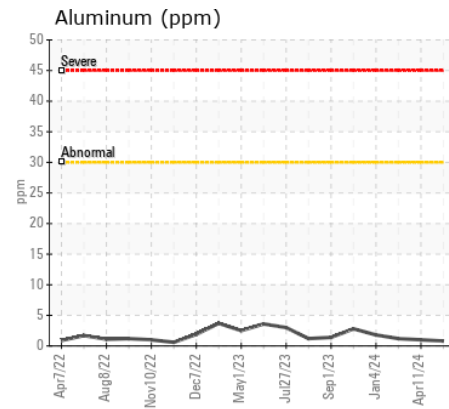
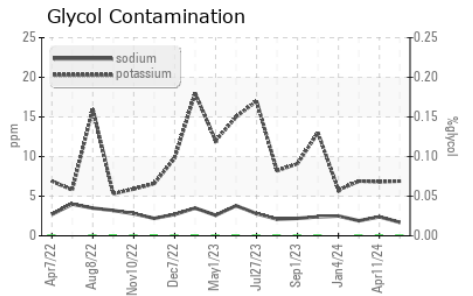
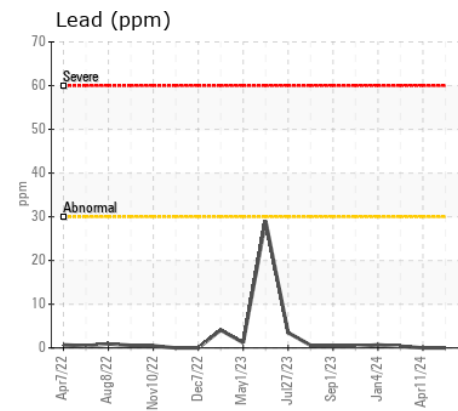
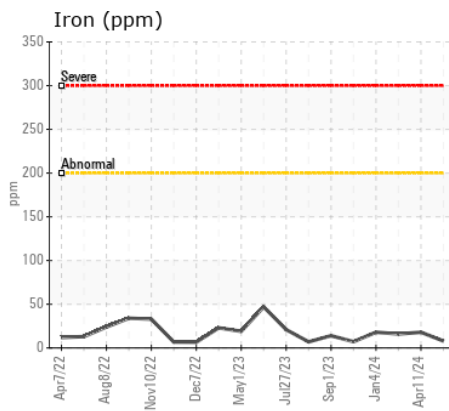
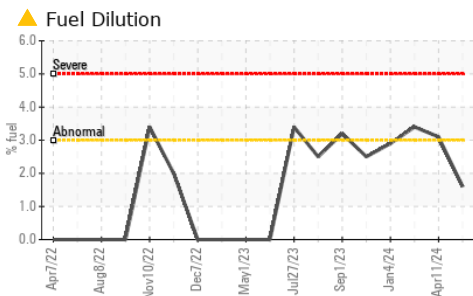
CONTAMINATION

Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0849108	WC0849107	WC0849106
Sample Date		Client Info		02 May 2024	11 Apr 2024	26 Feb 2024
Machine Age	kms	Client Info		4500000	4500000	4450000
Oil Age	kms	Client Info		12000	24000	24000
Filter Age	kms	Client Info		12000	24000	24000
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185(m)	>200	8	18	16
Chromium	ppm	ASTM D5185(m)	>10	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	<1	1	1
Lead	ppm	ASTM D5185(m)	>30	0	0	<1
Copper	ppm	ASTM D5185(m)	>30	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	▲ LIGHT	▲ LIGHT	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185(m)	>30	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	7	7	7
Fuel	%	ASTM D7593*	>3.0	▲ 1.6	▲ 3.1	▲ 3.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	0.0	0.0
Soot %	%	ASTM D7844*	>3	0.3	0.5	0.6
Nitration	Abs/cm	ASTM D7624*	>20	6.1	7.7	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	22.6	22.1
Silt	scalar	Visual*	NONE	NONE	VLITE	---
Debris	scalar	Visual*	NONE	NONE	▲ VLITE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	35	148	124	128
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1	2
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	10	15	16	16
Calcium	ppm	ASTM D5185(m)	2340	2139	2216	2158
Phosphorus	ppm	ASTM D5185(m)	1110	927	928	924
Zinc	ppm	ASTM D5185(m)	1210	1091	1113	1093
Sulfur	ppm	ASTM D5185(m)	3890	2816	2870	2975
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0	18.4	17.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	12.8	▲ 12.1	▲ 12.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **2636021 ONT INC - GRANT HOWARD**
Sample No. : WC0849108 **Received** : 03 May 2024 159 QUEEN ST, P.O BOX 63
Lab Number : 02632970 **Tested** : 07 May 2024 AILSA CRAIG, ON
Unique Number : 5774123 **Diagnosed** : 07 May 2024 - Kevin Marson CA N0M 1A0
Test Package : MOB 1 (Additional Tests: BottomAnalysis, FILTERPATCH, Glycol, PercentFuel, Viscosity) **Contact:** Grant Howard
 lohowie0161@gmail.com
 T: (519)857-6903
 F:

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.