



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**3721003**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T4 10W30 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0074760</b>	PC0066868	PC0059847
Sample Date		Client Info		<b>05 Jul 2023</b>	09 Jan 2023	27 Jun 2022
Machine Age	kms	Client Info		<b>274510</b>	224510	167215
Oil Age	kms	Client Info		<b>55000</b>	52000	59000
Filter Age	kms	Client Info		<b>55000</b>	52000	59000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>41</b>	45	73
Chromium	ppm	ASTM D5185(m)	>6	<b>2</b>	2	4
Nickel	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>50	<b>11</b>	12	25
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185(m)	>50	<b>10</b>	18	37
Tin	ppm	ASTM D5185(m)	>6	<b>&lt;1</b>	1	2
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

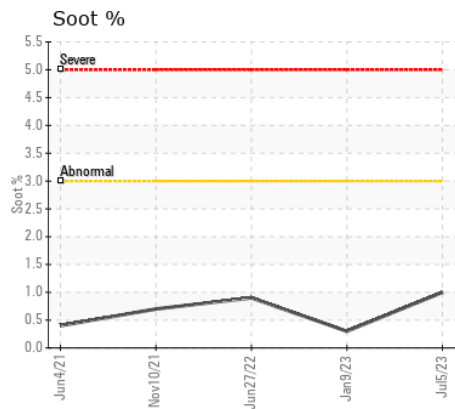
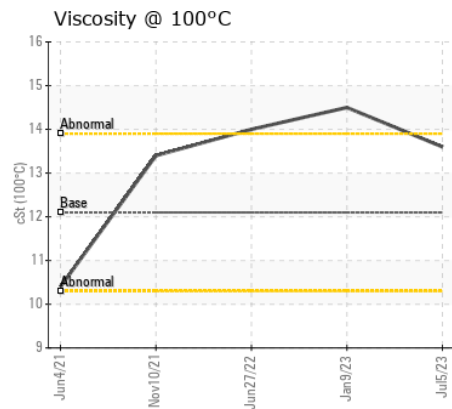
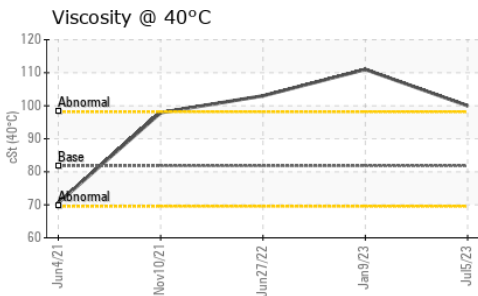
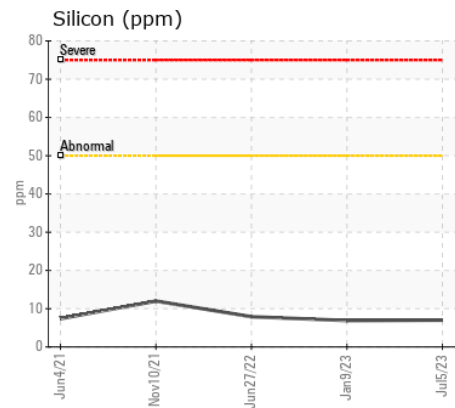
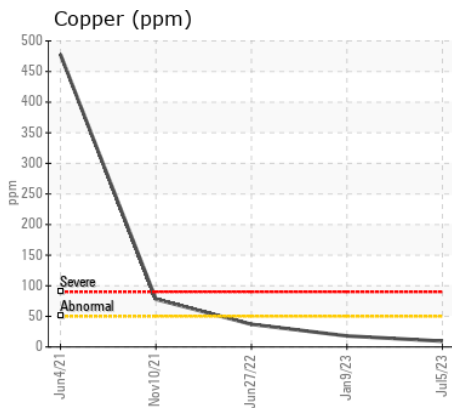
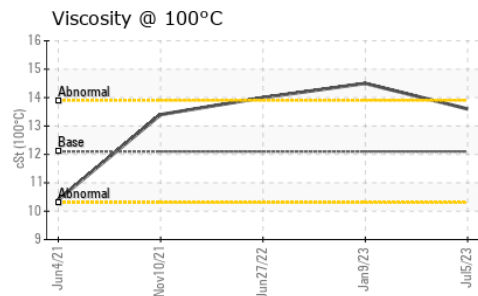
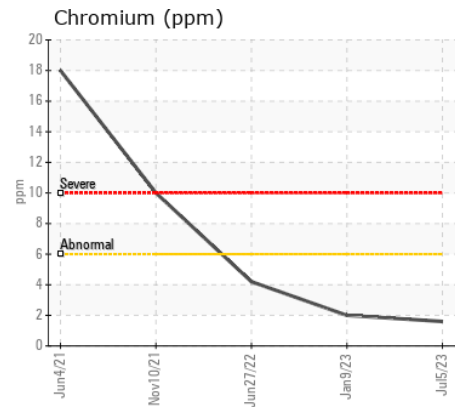
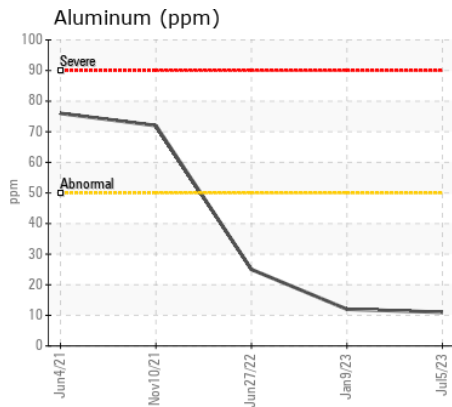
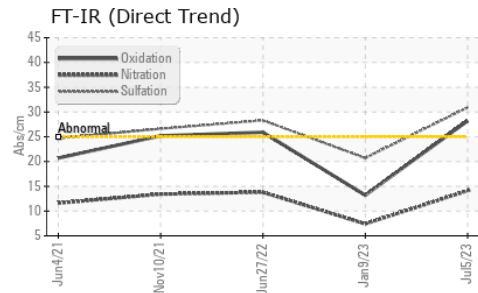
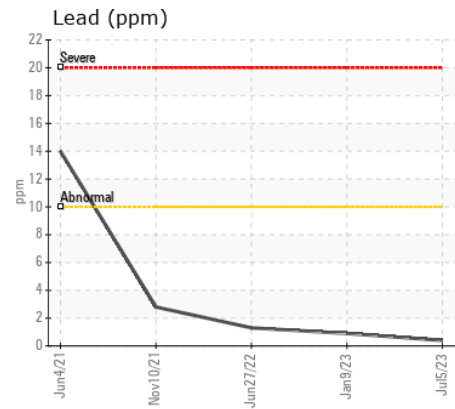
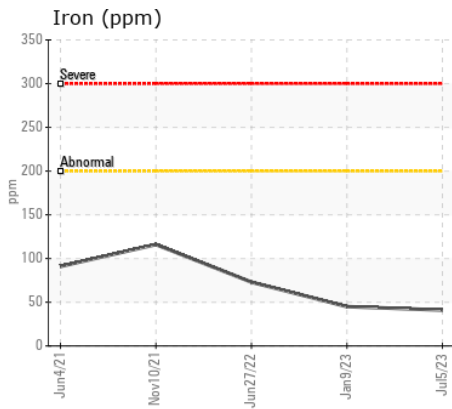
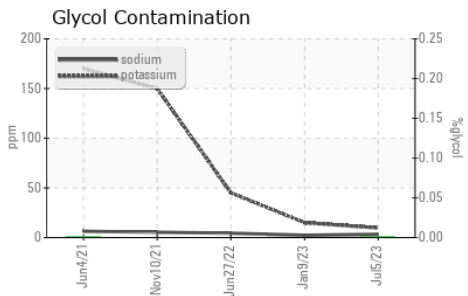
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	<b>7</b>	7	8
Potassium	ppm	ASTM D5185(m)	>20	<b>10</b>	15	45
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>1</b>	0.3	0.9
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.1</b>	7.4	13.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>30.9</b>	20.7	28.3
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185(m)		<b>3</b>	2	4
Boron	ppm	ASTM D5185(m)		<b>15</b>	5	3
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>59</b>	65	61
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185(m)		<b>537</b>	1048	1008
Calcium	ppm	ASTM D5185(m)		<b>1807</b>	1237	1243
Phosphorus	ppm	ASTM D5185(m)		<b>1129</b>	1160	1017
Zinc	ppm	ASTM D5185(m)		<b>1322</b>	1305	1311
Sulfur	ppm	ASTM D5185(m)		<b>2394</b>	2106	1994
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>28.2</b>	13.2	25.9
Visc @ 40°C	cSt	ASTM D7279(m)	81.8	<b>100</b>	111	103
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	<b>13.6</b>	14.5	14
Viscosity Index (VI)	Scale	ASTM D2270*	141	<b>136</b>	133	137



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0074760 **Received** : 05 Sep 2023  
**Lab Number** : 02580236 **Tested** : 06 Sep 2023  
**Unique Number** : 5633296 **Diagnosed** : 07 Sep 2023 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KV40, VI )

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.

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