



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
CN RAIL
Machine Id
1880 G1
Component
Diesel Engine
Fluid
VALVOLINE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0022016	CU0022326	CU0020867
Sample Date		Client Info		24 May 2024	12 Oct 2023	10 Mar 2023
Machine Age	hrs	Client Info		30846	1009	649
Oil Age	hrs	Client Info		750	0	0
Filter Age	hrs	Client Info		750	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	MARGINAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	10	15	14
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	1	1
Lead	ppm	ASTM D5185(m)	>40	0	1	3
Copper	ppm	ASTM D5185(m)	>330	<1	2	24
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

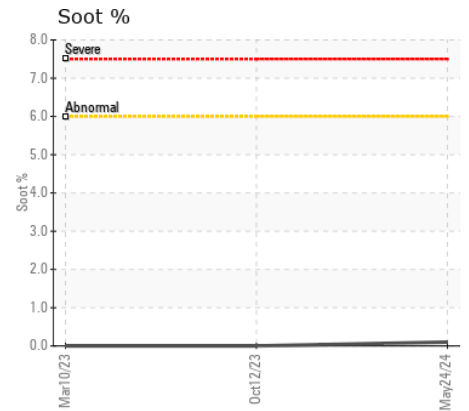
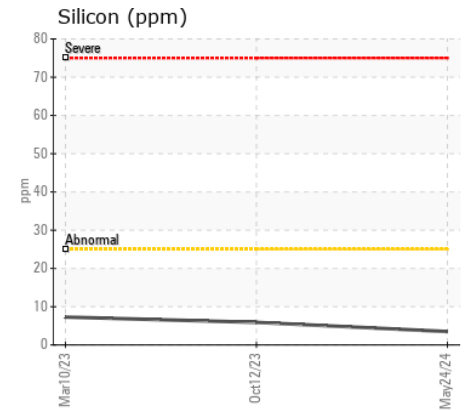
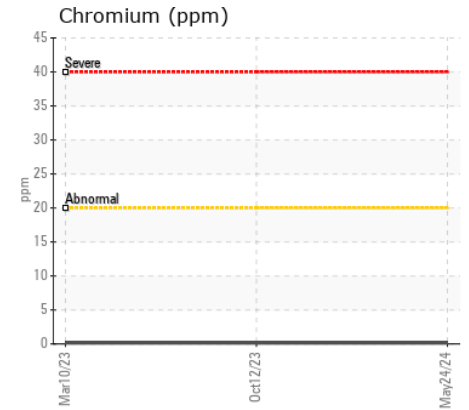
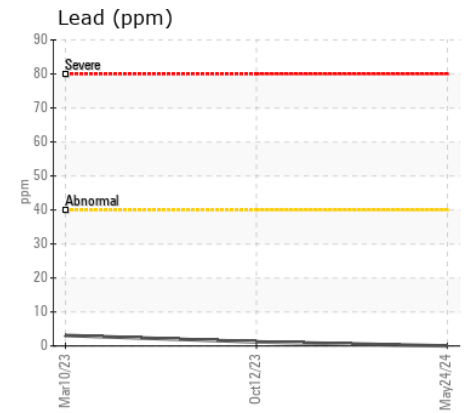
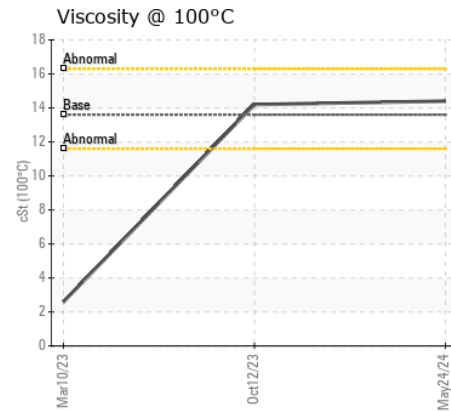
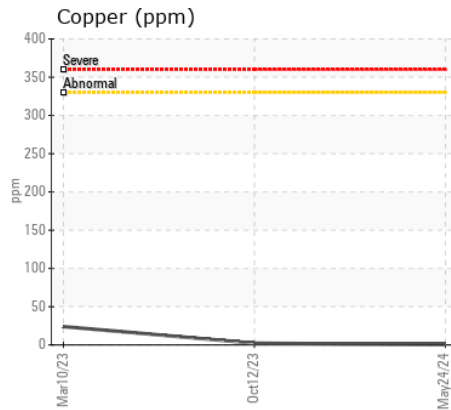
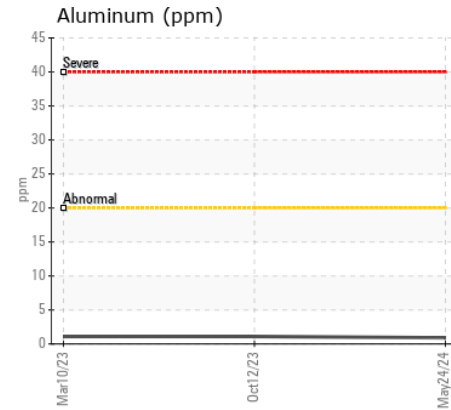
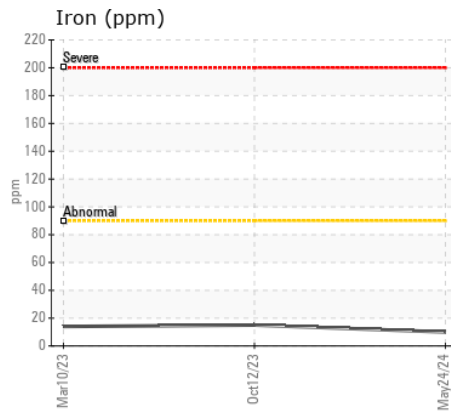
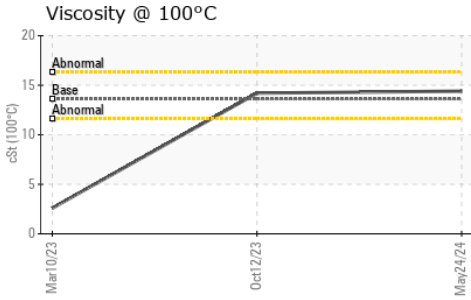
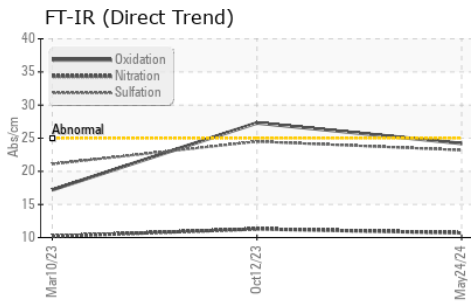
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	6	7
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1
Fuel		WC Method	>3.0	<1.0	▲ 1.3	▲ 46.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.1	0	0
Nitration	Abs/cm	ASTM D7624*	>20	10.7	11.3	10.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.2	24.5	21.1
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		4	5	5
Boron	ppm	ASTM D5185(m)	39	50	30	26
Barium	ppm	ASTM D5185(m)	1	0	<1	3
Molybdenum	ppm	ASTM D5185(m)	49	58	65	36
Manganese	ppm	ASTM D5185(m)	1	<1	0	4
Magnesium	ppm	ASTM D5185(m)	616	1020	1107	637
Calcium	ppm	ASTM D5185(m)	1554	786	811	546
Phosphorus	ppm	ASTM D5185(m)	899	940	994	600
Zinc	ppm	ASTM D5185(m)	1069	1099	1196	686
Sulfur	ppm	ASTM D5185(m)	2624	2531	2676	1535
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.2	27.3	17.2
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	14.4	14.2	▲ 2.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0022016
Lab Number : 02642768
Unique Number : 5800307
Test Package : MOB 1

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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.