



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
QC230725MOB2
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936549	WC0936548	WC0936547
Sample Date		Client Info		08 May 2024	07 May 2024	06 May 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	20	19	19
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0
Titanium	ppm	ASTM D5185(m)		3	3	3
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	4	4	4
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	9	9	9
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

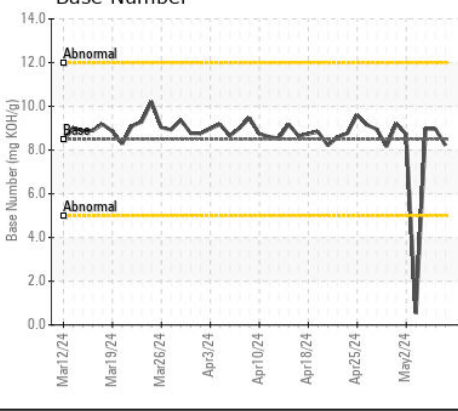
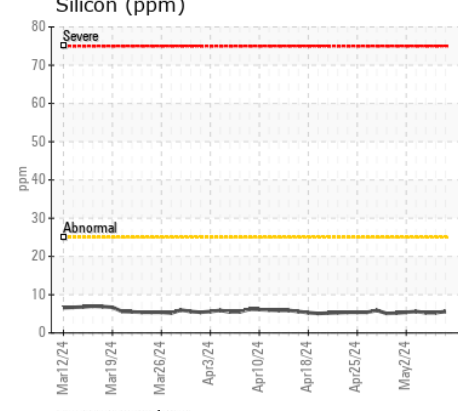
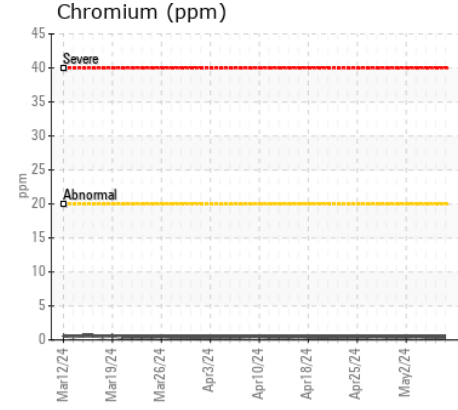
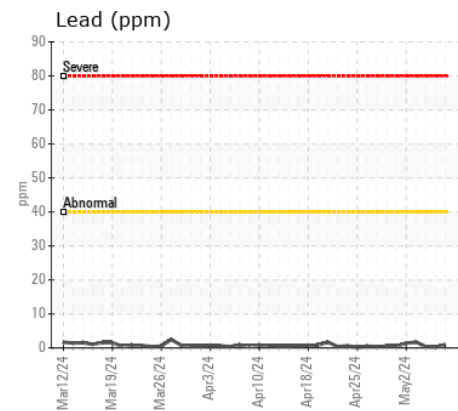
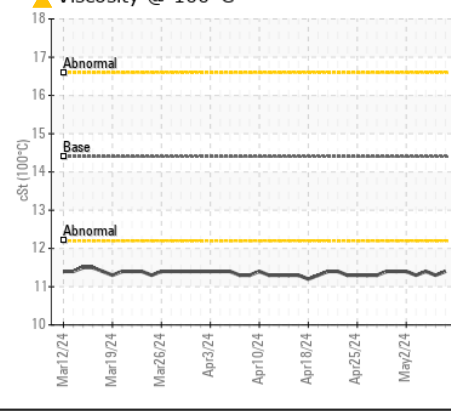
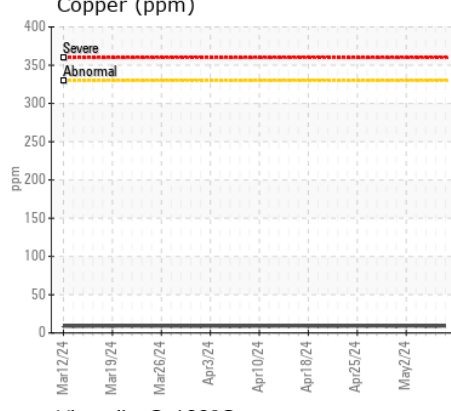
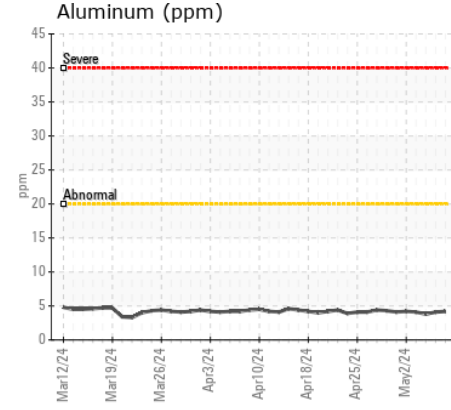
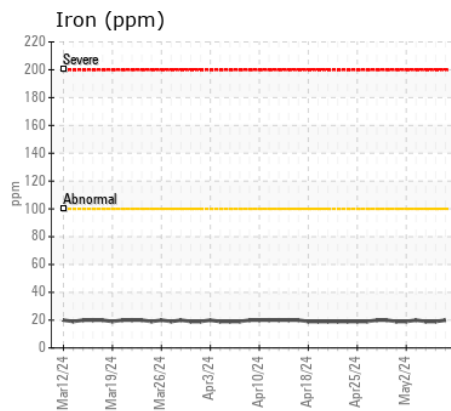
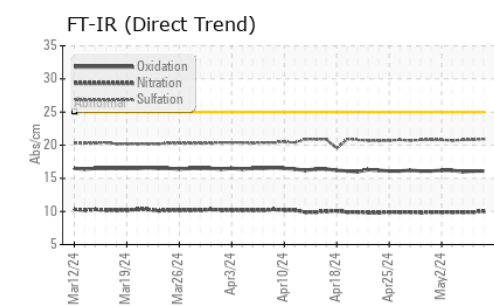
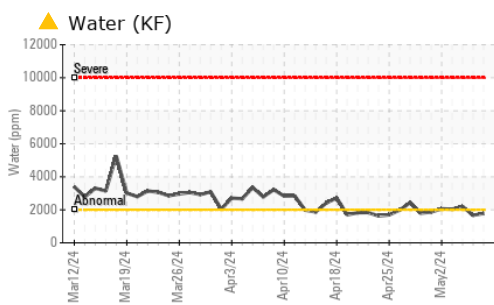
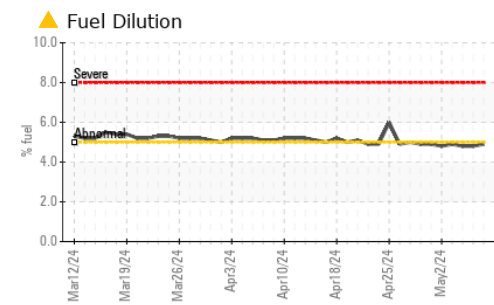
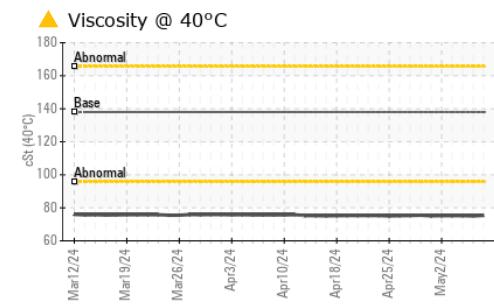
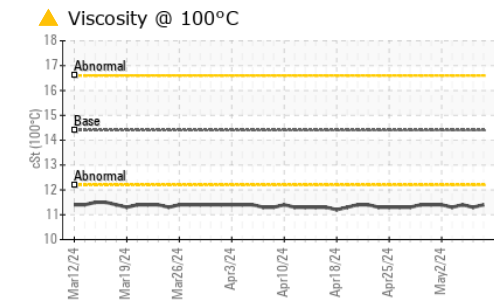
Light fuel dilution occurring. There is a trace of moisture present in the oil. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	5	5
Potassium	ppm	ASTM D5185(m)	>20	▲ 14	▲ 14	▲ 14
Fuel	%	ASTM D7593*	>5	▲ 4.9	▲ 4.8	▲ 4.8
Water	%	ASTM D6304*	>0.2	▲ 0.178	▲ 0.166	▲ 0.219
ppm Water	ppm	ASTM D6304*	>2000	▲ 1781	▲ 1669	▲ 2198
Glycol	%	ASTM D7922*		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.3	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	10.0	9.9	9.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.9	20.8	20.8
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	▲ .2%	▲ .2%

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 10W30 range, advise investigate.

Sodium	ppm	ASTM D5185(m)	>216	● 62	● 63	● 60
Boron	ppm	ASTM D5185(m)	250	36	29	33
Barium	ppm	ASTM D5185(m)	10	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	100	47	47	46
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	629	620	611
Calcium	ppm	ASTM D5185(m)	3000	1510	1487	1457
Phosphorus	ppm	ASTM D5185(m)	1150	858	832	847
Zinc	ppm	ASTM D5185(m)	1350	1020	1002	995
Sulfur	ppm	ASTM D5185(m)	4250	2612	2497	2532
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.1	16.1	16.0
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	8.22	8.96	8.98
Visc @ 40°C	cSt	ASTM D7279(m)	138	▲ 75.4	▲ 75.0	▲ 75.2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 11.4	▲ 11.3	▲ 11.4
Viscosity Index (VI)	Scale	ASTM D2270*	102	143	142	143



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0936549
Lab Number : 02633998
Unique Number : 5775151
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, KV40, PercentFuel, VI)

Received : 08 May 2024
Tested : 09 May 2024
Diagnosed : 09 May 2024 - Kevin Marson

WearCheck Quality Control Sample Results

Burlington, ON
CA

Contact: Dorian Anderson
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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.