



# OIL ANALYSIS REPORT

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

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

## RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

## WEAR

All component wear rates are normal.

## CONTAMINATION

There is a moderate amount of fuel present in the oil. There is a light concentration of water present in the oil. Free water present. Tests confirm the presence of fuel in the oil.

## FLUID CONDITION

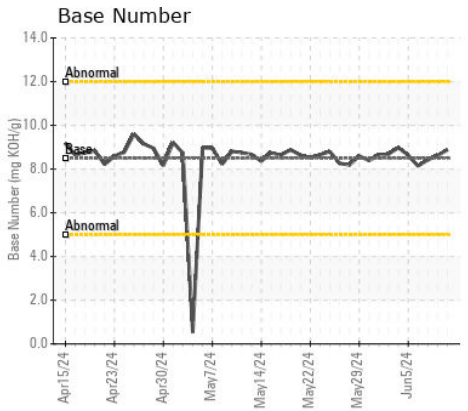
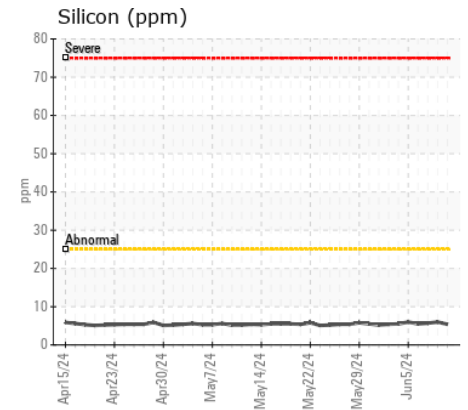
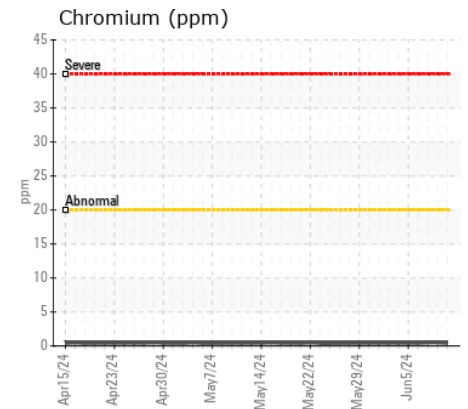
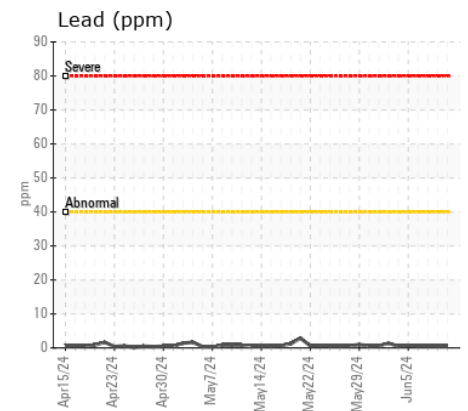
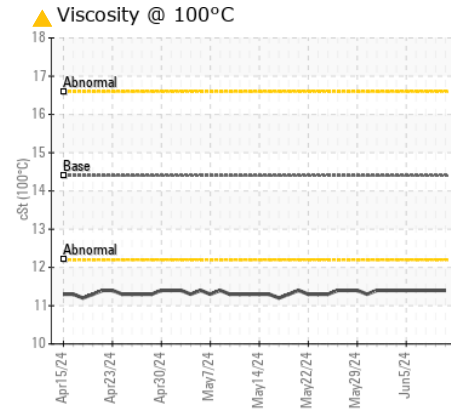
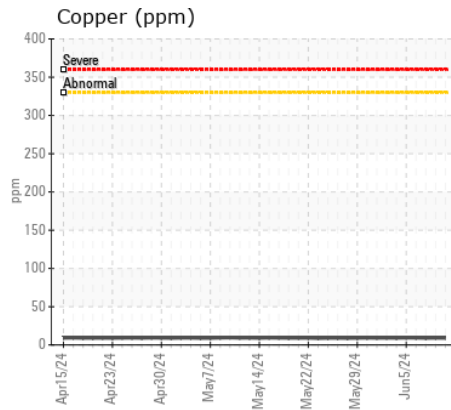
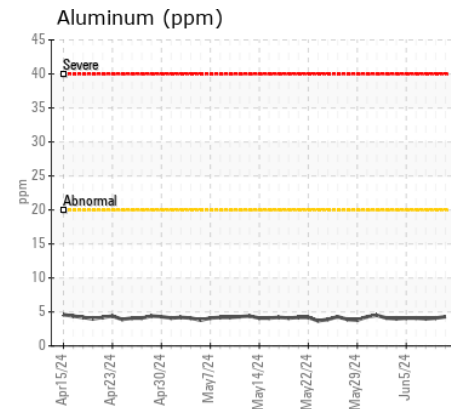
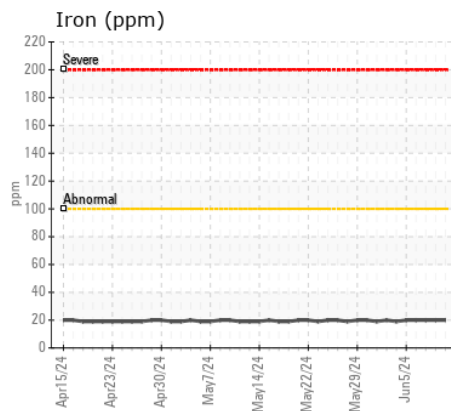
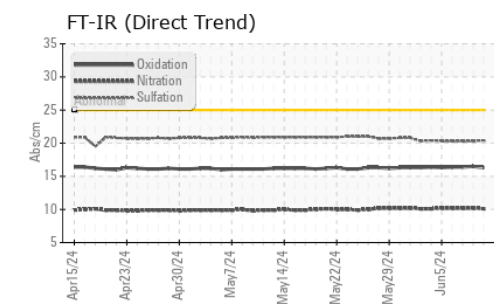
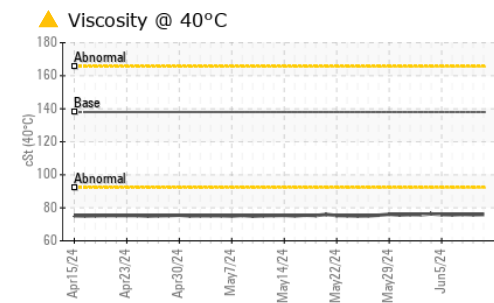
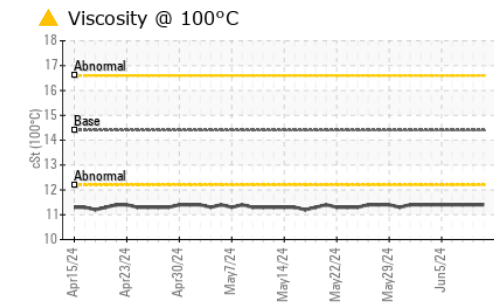
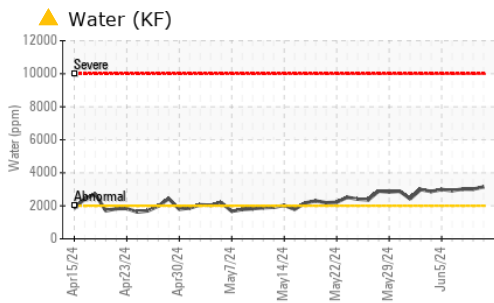
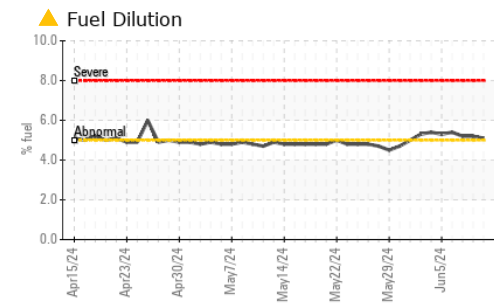
The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 10W30 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0948139</b>	WC0948138	WC0948135
Sample Date		Client Info		<b>11 Jun 2024</b>	10 Jun 2024	07 Jun 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

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

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	6	6
Potassium	ppm	ASTM D5185(m)	>20	<b>▲ 17</b>	▲ 17	▲ 17
Fuel	%	ASTM D7593*	>5	<b>▲ 5.1</b>	▲ 5.2	▲ 5.2
Water	%	ASTM D6304*	>0.2	<b>▲ 0.315</b>	▲ 0.300	▲ 0.301
ppm Water	ppm	ASTM D6304*	>2000	<b>▲ 3150</b>	▲ 3004	▲ 3014
Glycol	%	ASTM D7922*		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.1</b>	10.2	10.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.4</b>	20.3	20.3
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	▲ .2%	NEG

Sodium	ppm	ASTM D5185(m)	>216	<b>● 76</b>	● 81	● 78
Boron	ppm	ASTM D5185(m)	250	<b>35</b>	41	35
Barium	ppm	ASTM D5185(m)	10	<b>&lt;1</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	100	<b>47</b>	48	47
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>626</b>	625	625
Calcium	ppm	ASTM D5185(m)	3000	<b>1497</b>	1493	1486
Phosphorus	ppm	ASTM D5185(m)	1150	<b>857</b>	868	858
Zinc	ppm	ASTM D5185(m)	1350	<b>1030</b>	1028	1020
Sulfur	ppm	ASTM D5185(m)	4250	<b>2591</b>	2587	2578
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.3</b>	16.5	16.4
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	<b>8.88</b>	8.62	8.42
Visc @ 40°C	cSt	ASTM D7279(m)	138	<b>▲ 75.9</b>	▲ 75.8	▲ 76.0
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>▲ 11.4</b>	▲ 11.4	▲ 11.4
Viscosity Index (VI)	Scale	ASTM D2270*	102	<b>142</b>	142	141



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0948139  
**Lab Number** : 02641004  
**Unique Number** : 5798543  
**Test Package** : MOB 2 ( Additional Tests: Glycol, KF, KV40, PercentFuel, VI )

**Received** : 11 Jun 2024  
**Tested** : 12 Jun 2024  
**Diagnosed** : 13 Jun 2024 - Kevin Marson

**WearCheck Quality Control Sample Results**

Burlington, ON  
CA

Contact: Dorian Anderson  
dorian.anderson@wearcheck.com  
T: (289)291-4652  
F: (905)569-8605

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.