MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

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

RECOMMENDATION

Check for low coolant level. 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

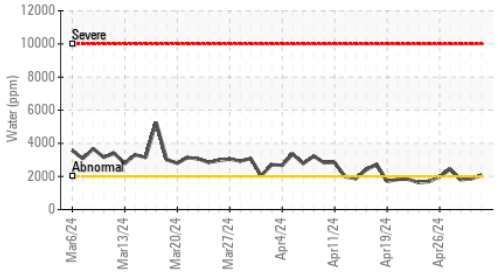
Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. There is a light concentration of water present in the oil. Test for glycol is negative. No other contaminants were detected in the oil.

FLUID CONDITION

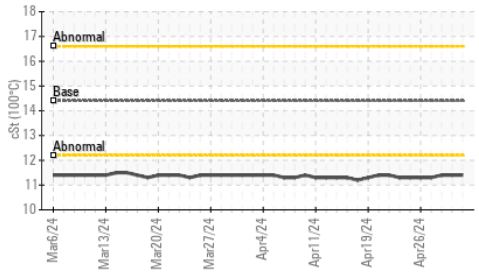
The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 10W30 range, advise investigate. The condition of the oil is acceptable for the time in service (see recommendation). The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936543	WC0936542	WC0925458
Sample Date		Client Info		02 May 2024	01 May 2024	30 Apr 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
Iron	ppm	ASTM D5185(m)	>100	19	19	20
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
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
Silicon	ppm	ASTM D5185(m)	>25	5	5	5
Potassium	ppm	ASTM D5185(m)	>20	▲ 51	▲ 14	▲ 14
Fuel	%	ASTM D7593*	>5	▲ 4.8	▲ 4.9	▲ 4.9
Water	%	ASTM D6304*	>0.2	▲ 0.206	▲ 0.186	▲ 0.179
ppm Water	ppm	ASTM D6304*	>2000	▲ 2061	▲ 1863	▲ 1795
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.3	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	9.9	9.9	9.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	20.8	20.8
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	▲ .2%	NEG
Sodium	ppm	ASTM D5185(m)	>216	71	● 61	● 61
Boron	ppm	ASTM D5185(m)	250	33	32	31
Barium	ppm	ASTM D5185(m)	10	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	100	47	47	47
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	606	619	619
Calcium	ppm	ASTM D5185(m)	3000	1434	1450	1500
Phosphorus	ppm	ASTM D5185(m)	1150	842	851	867
Zinc	ppm	ASTM D5185(m)	1350	973	1005	1020
Sulfur	ppm	ASTM D5185(m)	4250	2519	2575	2541
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.2	16.1	16.1
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	8.73	9.21	8.16
Visc @ 40°C	cSt	ASTM D7279(m)	138	▲ 75.2	▲ 75.1	▲ 75.5
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 11.4	▲ 11.4	▲ 11.4
Viscosity Index (VI)	Scale	ASTM D2270*	102	143	143	143

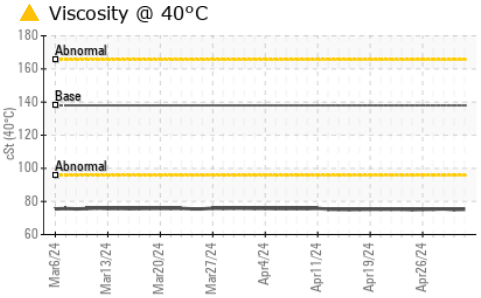
Water (KF)



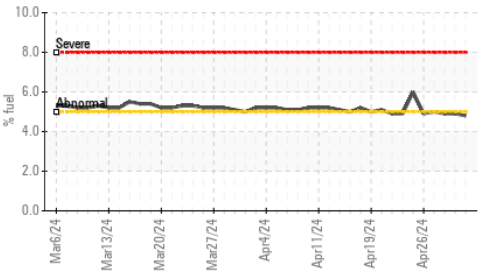
Viscosity @ 100°C



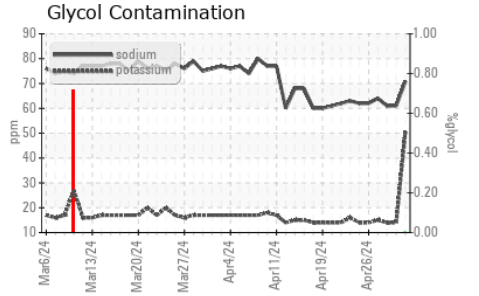
Viscosity @ 40°C



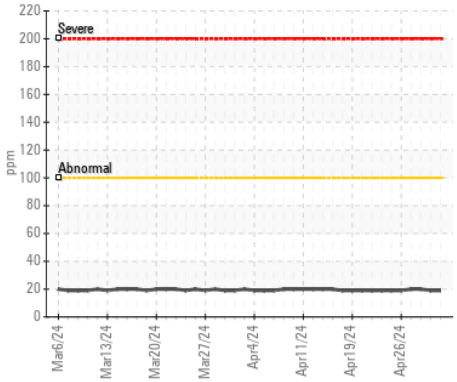
Fuel Dilution



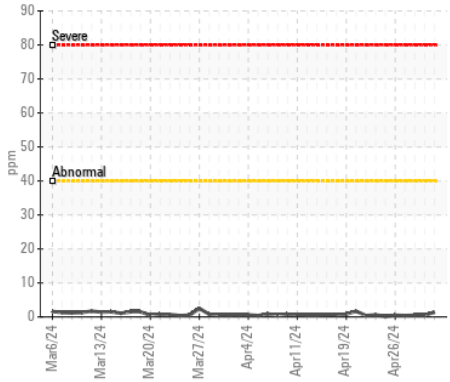
Glycol Contamination



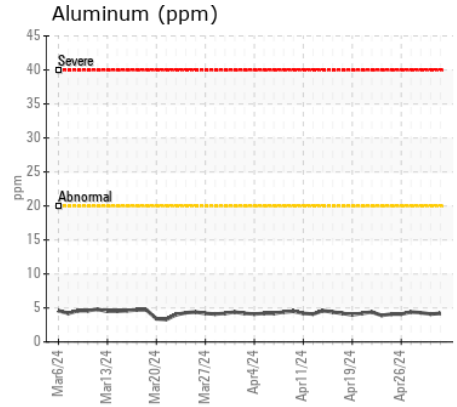
Iron (ppm)



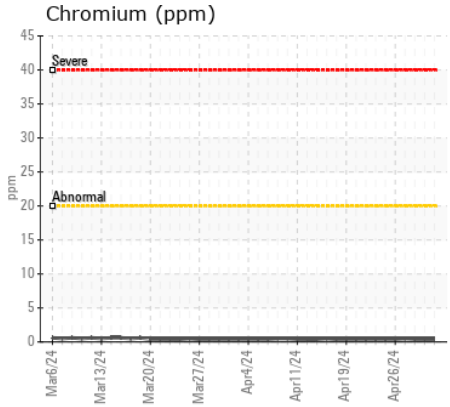
Lead (ppm)



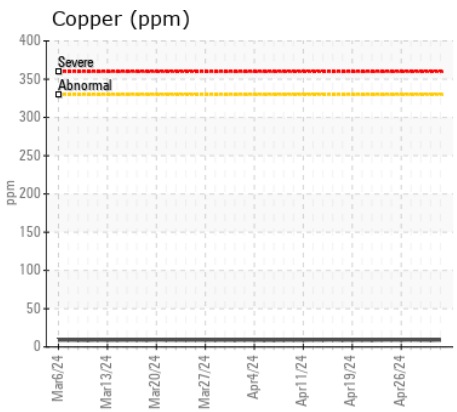
Aluminum (ppm)



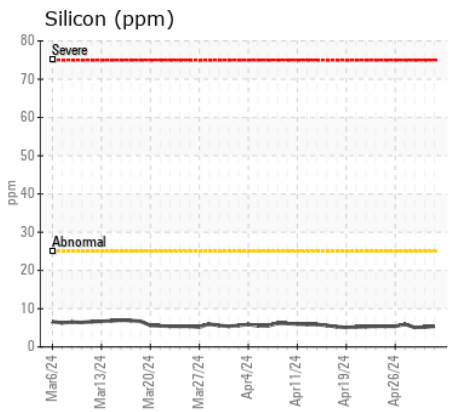
Chromium (ppm)



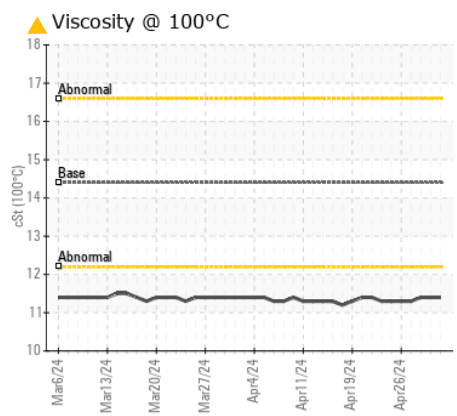
Copper (ppm)



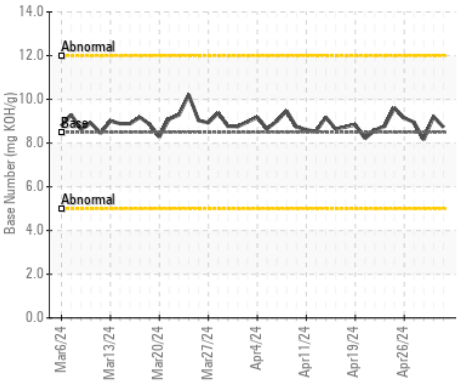
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **WearCheck Quality Control Sample Results**
Sample No. : WC0936543 **Received** : 02 May 2024
Lab Number : 02632655 **Tested** : 03 May 2024 Burlington, ON
Unique Number : 5773808 **Diagnosed** : 03 May 2024 - Kevin Marson CA
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, KV40, PercentFuel, VI) Contact: Dorian Anderson

To discuss this sample report, contact Customer Service at 1-800-268-2131. dorian.anderson@wearcheck.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (289)291-4652
Validity of results and interpretation are based on the sample and information as supplied. F: (905)569-8605