MOB I WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
KOVATERRA MC100D FMC-004 (S/N 6092)
Component
Diesel Engine
Fluid
MOBIL 15W40 (8 LTR)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

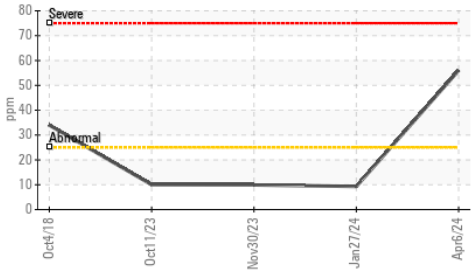
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

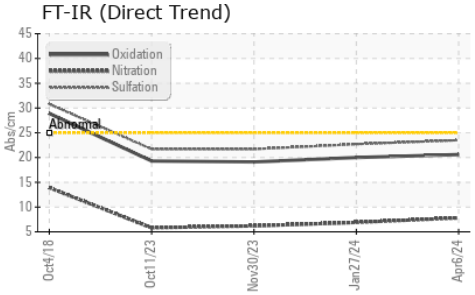
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0928374	WC0892430	WC0883859
Sample Date		Client Info		06 Apr 2024	27 Jan 2024	30 Nov 2023
Machine Age	hrs	Client Info		1524	1320	1087
Oil Age	hrs	Client Info		250	0	250
Filter Age	hrs	Client Info		250	0	250
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>100	55	13	11
Chromium	ppm	ASTM D5185(m)	>20	4	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	18	2	2
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	2	2	1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Silicon	ppm	ASTM D5185(m)	>25	▲ 56	9	10
Potassium	ppm	ASTM D5185(m)	>20	8	1	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.7	0.5	0.4
Nitration	Abs/cm	ASTM D7624*	>20	7.8	6.9	6.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.5	22.7	21.7
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)	>118	8	4	4
Boron	ppm	ASTM D5185(m)		36	37	33
Barium	ppm	ASTM D5185(m)		<1	0	<1
Molybdenum	ppm	ASTM D5185(m)		39	40	43
Manganese	ppm	ASTM D5185(m)		1	0	<1
Magnesium	ppm	ASTM D5185(m)		512	524	591
Calcium	ppm	ASTM D5185(m)		1730	1651	1562
Phosphorus	ppm	ASTM D5185(m)		739	766	781
Zinc	ppm	ASTM D5185(m)		883	871	935
Sulfur	ppm	ASTM D5185(m)		2116	2247	2147
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.6	20.0	19.1
Visc @ 100°C	cSt	ASTM D7279(m)		14.2	13.6	13.9

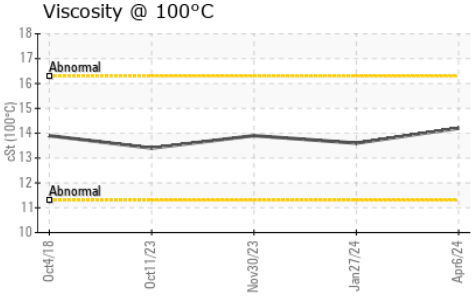
Silicon (ppm)



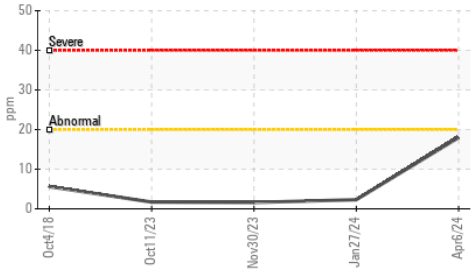
FT-IR (Direct Trend)



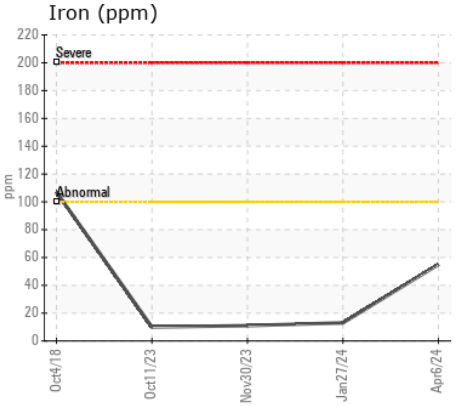
Viscosity @ 100°C



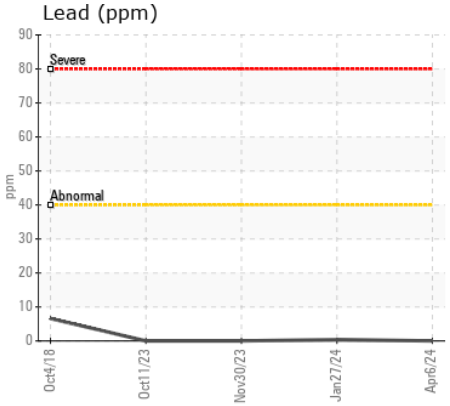
Aluminum (ppm)



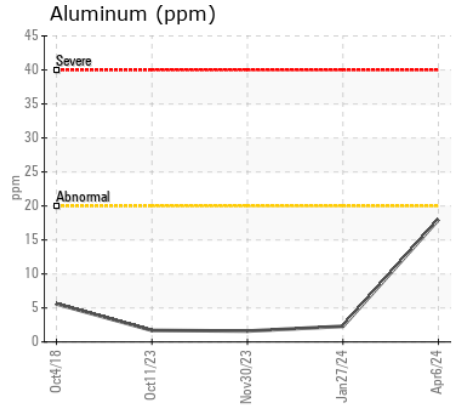
Iron (ppm)



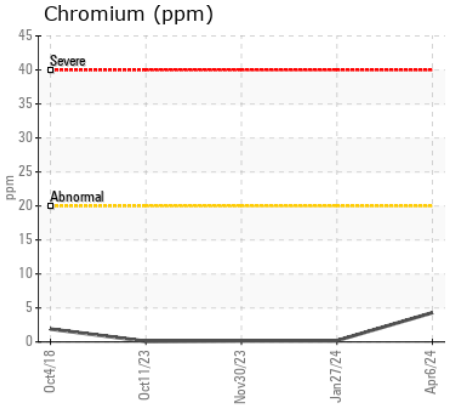
Lead (ppm)



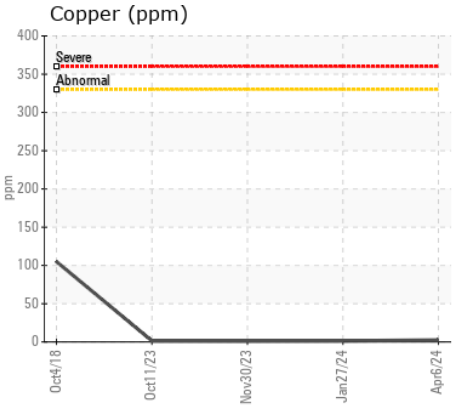
Aluminum (ppm)



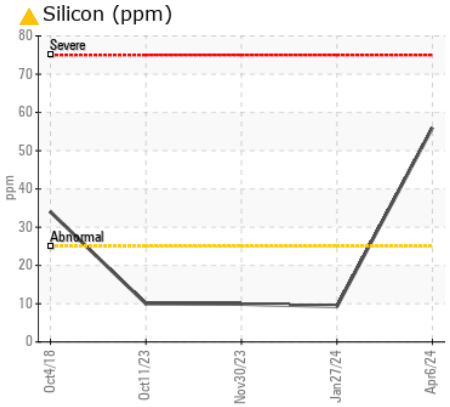
Chromium (ppm)



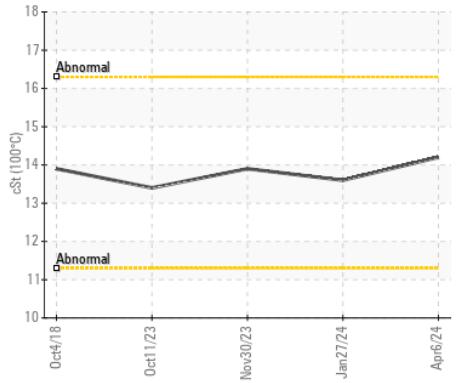
Copper (ppm)



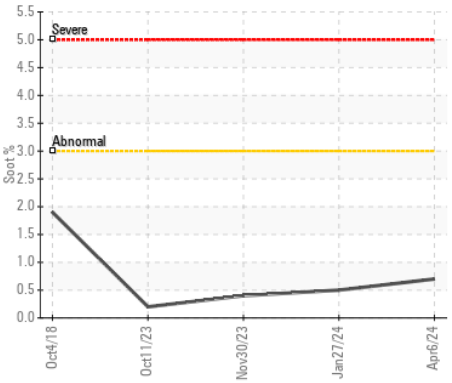
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0928374
Lab Number : 02627797
Unique Number : 5760929
Test Package : MOB 1

Received : 10 Apr 2024
Tested : 10 Apr 2024
Diagnosed : 10 Apr 2024 - Kevin Marson

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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