



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH40M 116354-1215
Component
Diesel Engine
Fluid
PETRO CANADA SUPREME 5W30 (32 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0261417	LH0277625	LH0150655
Sample Date		Client Info		22 Mar 2024	25 Jan 2024	23 Nov 2021
Machine Age	hrs	Client Info		10603	10001	5042
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	3	3	3
Chromium	ppm	ASTM D5185(m)	>5	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>15	1	1	1
Lead	ppm	ASTM D5185(m)	>30	0	<1	1
Copper	ppm	ASTM D5185(m)	>125	<1	1	3
Tin	ppm	ASTM D5185(m)	>5	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

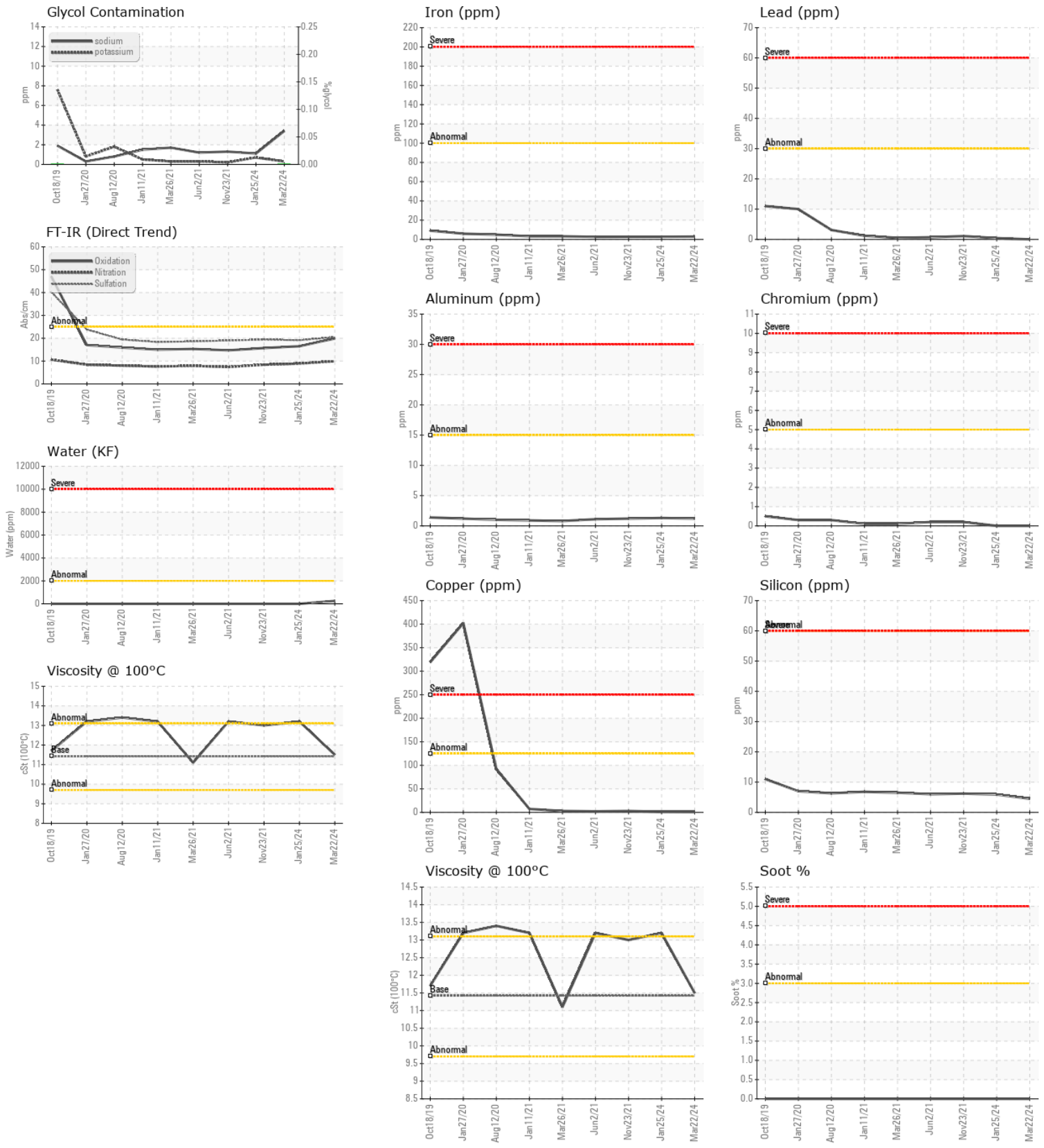
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	6	6
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water	%	ASTM D6304*	>0.2	0.025	---	---
ppm Water	ppm	ASTM D6304*	>2000	251	---	---
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.9	8.9	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.5	19.1	19.4
Emulsified Water	scalar	Visual*	>0.2	.2%	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		3	1	1
Boron	ppm	ASTM D5185(m)	186	30	<1	1
Barium	ppm	ASTM D5185(m)	<1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	79	55	59	60
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	578	1113	971	1028
Calcium	ppm	ASTM D5185(m)	1002	837	1067	1063
Phosphorus	ppm	ASTM D5185(m)	745	993	1029	1074
Zinc	ppm	ASTM D5185(m)	837	1209	1183	1218
Sulfur	ppm	ASTM D5185(m)	2502	2713	2707	2513
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.9	16.5	15.7
Visc @ 100°C	cSt	ASTM D7279(m)	11.42	11.5	13.2	13.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0261417
Lab Number : 02627177
Unique Number : 5760309
Test Package : MOB 1 (Additional Tests: Glycol, KF)

KIMCO STEEL SALES LTD.
 1325 JOHN COUNTER BLVD
 KINGSTON, ON
 CA K7L 4W1
 Contact: David Roy
 doug@kimcosteel.com
 T: (800)267-0902
 F: (613)548-4653

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.