



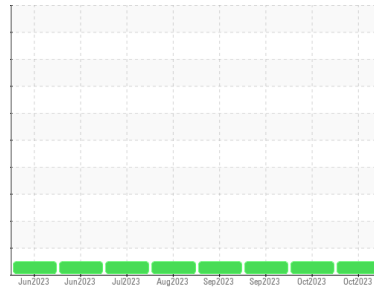
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
KDAC
Machine Id
200300
Component
Diesel Engine
Fluid
TEST OIL GOLD 4 (40 LTR)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0864677	WC0864665	WC0852047
Sample Date	Client Info			29 Oct 2023	08 Oct 2023	13 Sep 2023
Machine Age	kms	Client Info		218325	204587	185746
Oil Age	kms	Client Info		32579	18843	65349
Oil Changed	Client Info			Not Chngd	Not Chngd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	23	13	41
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>15	2	<1	2
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	8	6	15
Lead	ppm	ASTM D5185(m)	>40	<1	<1	2
Copper	ppm	ASTM D5185(m)	>330	13	10	51
Tin	ppm	ASTM D5185(m)	>15	<1	0	2
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

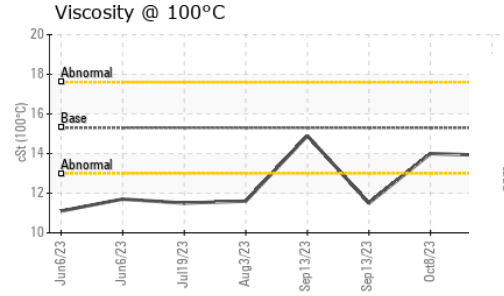
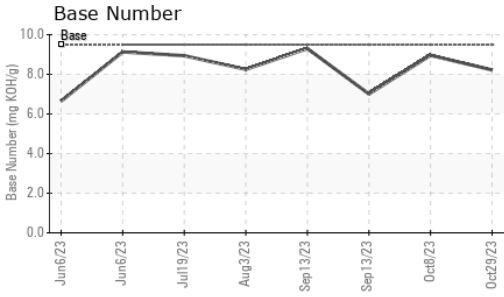
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	1	1	2
Barium	ppm	ASTM D5185(m)	0	<1	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	70	60	63
Manganese	ppm	ASTM D5185(m)	0	<1	0	1
Magnesium	ppm	ASTM D5185(m)	950	1132	975	971
Calcium	ppm	ASTM D5185(m)	980	1220	1050	1077
Phosphorus	ppm	ASTM D5185(m)	1100	1126	983	930
Zinc	ppm	ASTM D5185(m)	1150	1372	1174	1146
Sulfur	ppm	ASTM D5185(m)	2600	2841	2525	2133
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	3	7
Sodium	ppm	ASTM D5185(m)		3	2	3
Potassium	ppm	ASTM D5185(m)	>20	10	7	33

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	0.6	0.3	1
Nitration	Abs/cm	ASTM D7624*	>20	8.4	7.0	10.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	19.1	22.9



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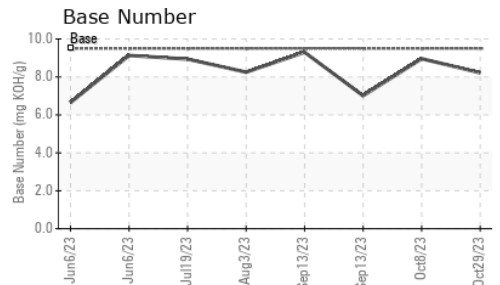
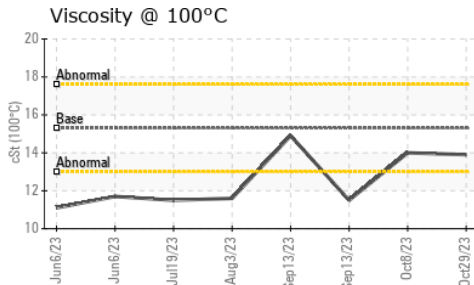
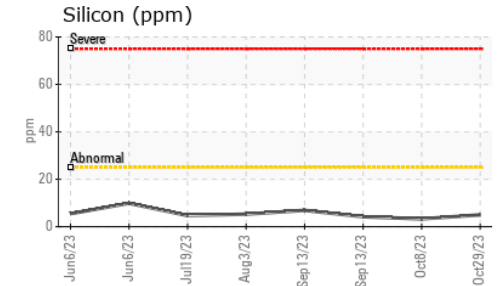
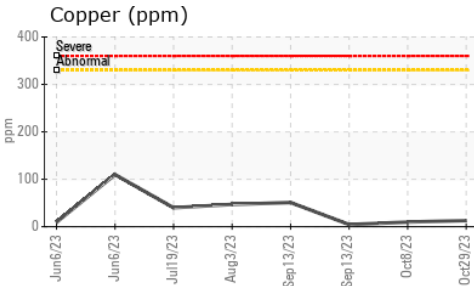
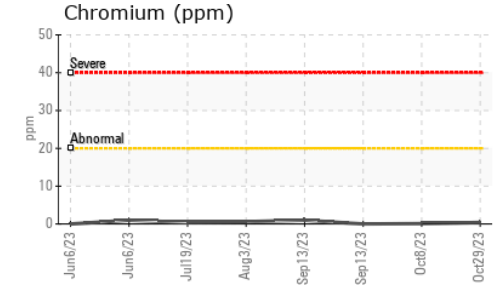
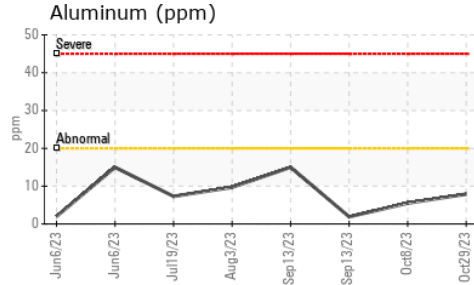
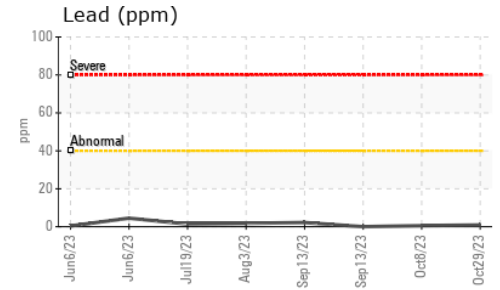
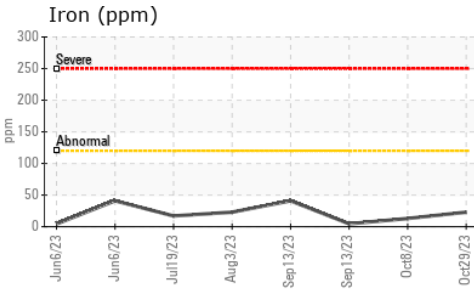


FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.4	14.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.5	8.22	8.96

VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.3	13.9	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0864677
Lab Number : 02592893
Unique Number : 5669972
Test Package : MOB 2
Received : 31 Oct 2023
Diagnosed : 01 Nov 2023
Diagnostician : Wes Davis

WFR Technical Services
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 Burlington, ON
 CA L7L 3Y1
 Contact: William Ridley
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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.