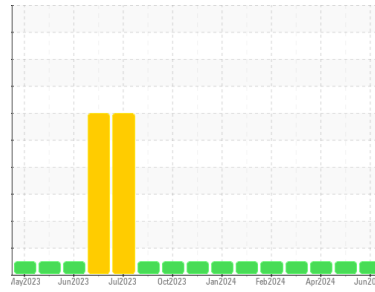




OIL ANALYSIS REPORT

Area
BD SHOP
 Machine Id
200301
 Component
Diesel Engine
 Fluid
TEST OIL GOLD 4 (40 LTR)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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		WC0926289	WC0926294	WC0926313
Sample Date	Client Info		19 Jun 2024	07 Jun 2024	16 Apr 2024
Machine Age	kms	Client Info	265995	259209	232541
Oil Age	kms	Client Info	0	53353	26685
Oil Changed	Client Info		Changed	N/A	Not Changd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	0.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>120	4	28	19
Chromium	ppm	ASTM D5185(m)	>20	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>15	<1	4	4
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	15	13
Lead	ppm	ASTM D5185(m)	>40	0	0	0
Copper	ppm	ASTM D5185(m)	>330	2	16	14
Tin	ppm	ASTM D5185(m)	>15	0	<1	0
Antimony	ppm	ASTM D5185(m)		<1	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	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	56	61	58
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	912	967	955
Calcium	ppm	ASTM D5185(m)	980	995	1067	1032
Phosphorus	ppm	ASTM D5185(m)	1100	934	930	955
Zinc	ppm	ASTM D5185(m)	1150	1127	1175	1143
Sulfur	ppm	ASTM D5185(m)	2600	2453	2364	2426
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

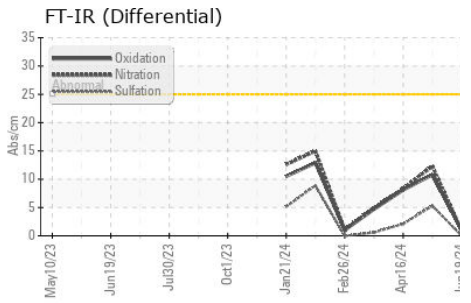
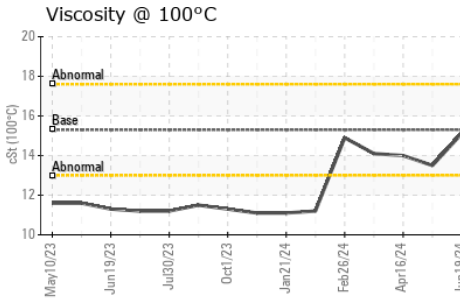
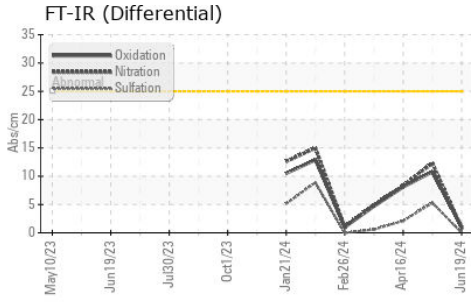
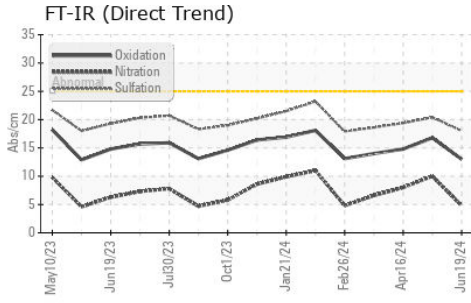
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	3	3	2
Sodium	ppm	ASTM D5185(m)		1	2	2
Potassium	ppm	ASTM D5185(m)	>20	2	24	20

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	0	1.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	4.8	10.0	8.0
Nitration(Diff)	Abs/cm	ASTM E2412*	< 25	0.9	12.3	8.3
Sulfation	Abs./1mm	ASTM D7415*	>30	18.0	20.4	19.4
Sulfation(Diff)	Abs/cm	ASTM E2412*		0	5.3	2.1



OIL ANALYSIS REPORT

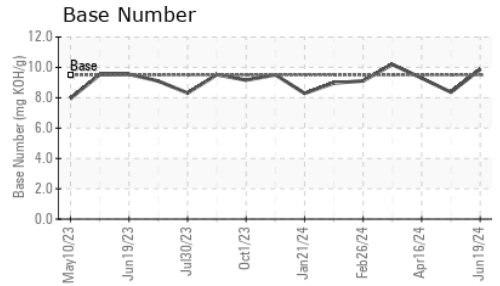
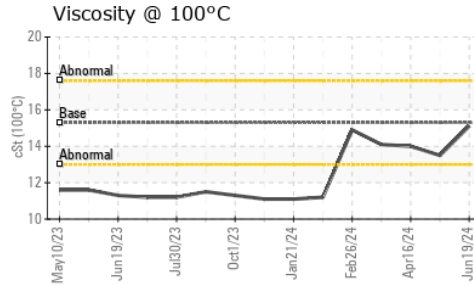
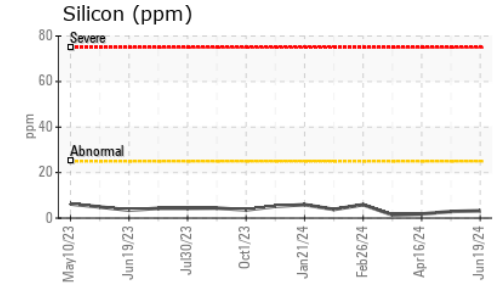
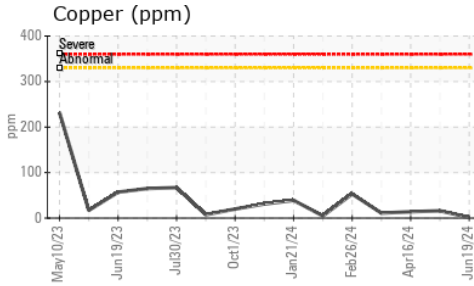
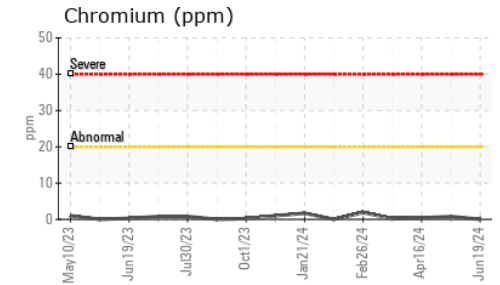
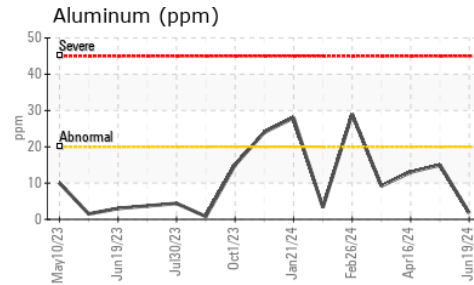
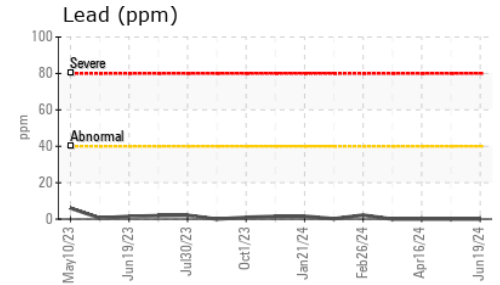
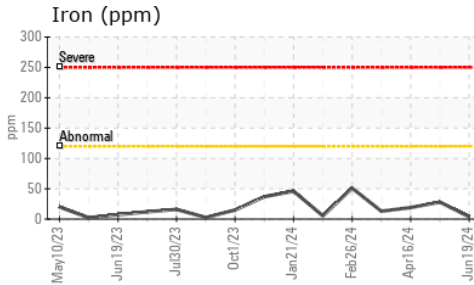


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	13.0	16.8	14.8
Oxidation(Diff)	Abs/cm	ASTM E2412*	< 25	1.1	10.8	8.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.5	9.87	8.36	9.29

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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	15.3	15.1	13.5	14.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0926289 **Received** : 24 Jun 2024
Lab Number : 02643699 **Tested** : 25 Jun 2024
Unique Number : 5801238 **Diagnosed** : 25 Jun 2024 - Kevin Marson
Test Package : MOB 2 (Additional Tests: FT-IR(Diff))

WFR Technical Services
 5389 Riverside Drive
 Burlington, ON
 CA L7L 3Y1
 Contact: William Ridley
 wfr.technical.services@gmail.com

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.