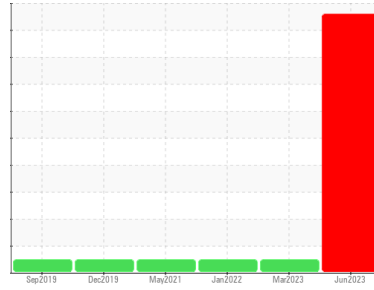




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
9553

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil 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

Test for glycol is positive. There is a moderate amount of fuel present in the oil. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0796319	WC0796365	WC0654586
Sample Date	Client Info		17 Jun 2023	12 Mar 2023	27 Jan 2022
Machine Age	kms	Client Info	624861	601032	0
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >90	33	65	19
Chromium	ppm	ASTM D5185(m) >20	<1	3	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m) >2	<1	<1	0
Silver	ppm	ASTM D5185(m) >2	<1	0	<1
Aluminum	ppm	ASTM D5185(m) >20	3	7	2
Lead	ppm	ASTM D5185(m) >40	<1	14	<1
Copper	ppm	ASTM D5185(m) >330	2	5	1
Tin	ppm	ASTM D5185(m) >15	0	1	<1
Antimony	ppm	ASTM D5185(m)	0	<1	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) 250	17	29	71
Barium	ppm	ASTM D5185(m) 10	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 100	27	17	12
Manganese	ppm	ASTM D5185(m)	<1	1	<1
Magnesium	ppm	ASTM D5185(m) 450	528	741	740
Calcium	ppm	ASTM D5185(m) 3000	989	1654	1269
Phosphorus	ppm	ASTM D5185(m) 1150	634	889	737
Zinc	ppm	ASTM D5185(m) 1350	738	937	808
Sulfur	ppm	ASTM D5185(m) 4250	2808	2583	2447
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	10	6	5
Sodium	ppm	ASTM D5185(m) >158	▲ 74	3	2
Potassium	ppm	ASTM D5185(m) >20	▲ 100	4	4
Fuel	%	ASTM D7593* >3.0	▲ 3.2	<1.0	<1.0
Glycol	%	ASTM D7922*	● >.70	NEG	NEG

INFRA-RED

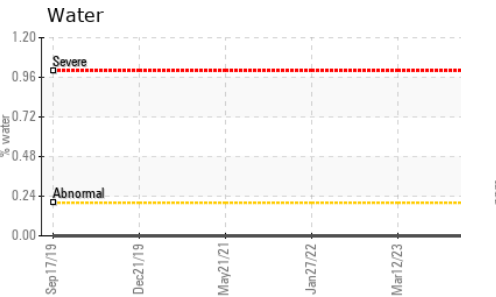
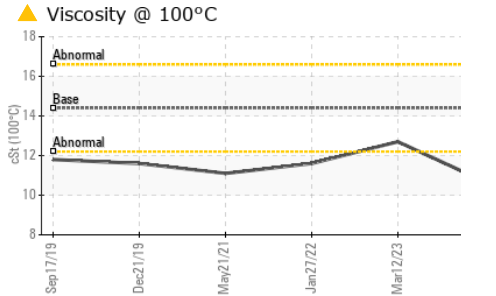
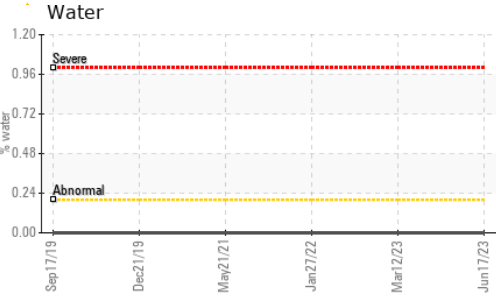
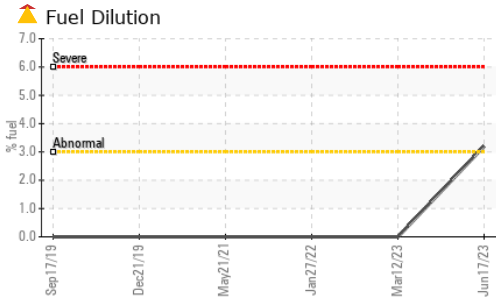
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >6	0.1	0.8	0
Nitration	Abs/cm	ASTM D7624* >20	8.0	13.0	4.5
Sulfation	Abs/.1mm	ASTM D7415* >30	17.3	31.7	13.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	14.0	27.0	6.9



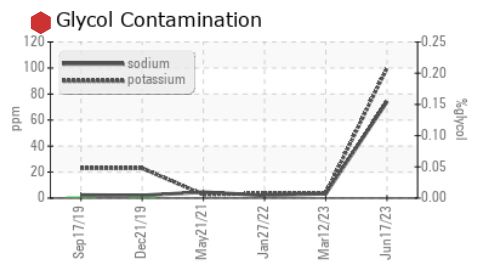
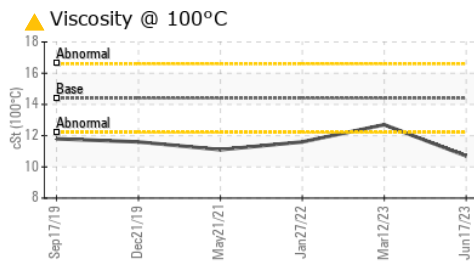
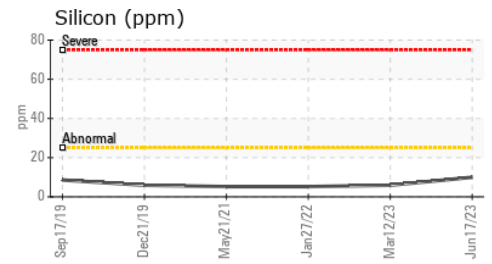
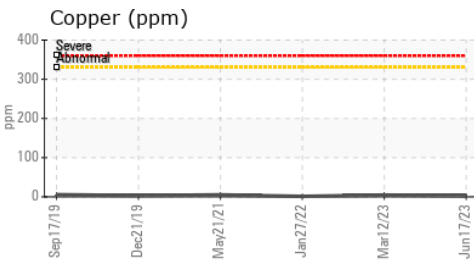
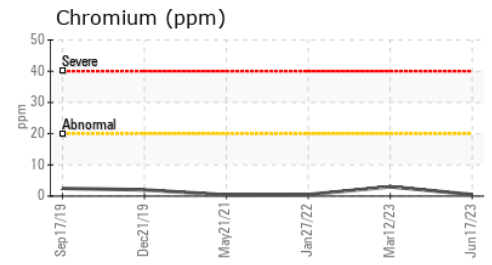
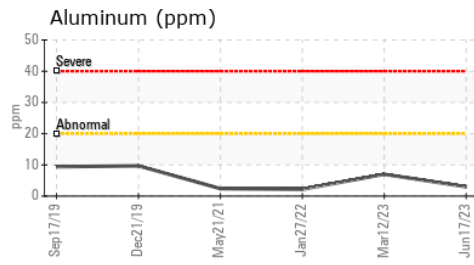
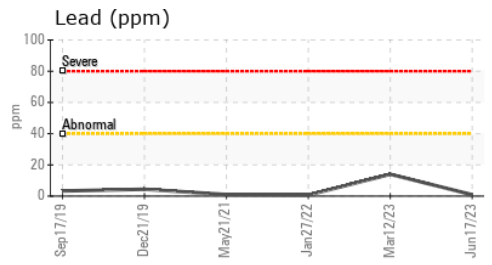
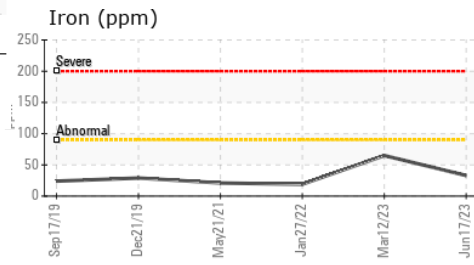
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	VLITE	---
Debris	scalar	Visual*	NONE	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 10.7	12.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0796319 **Received** : 21 Jun 2023
Lab Number : 02565448 **Diagnosed** : 22 Jun 2023
Unique Number : 5594489 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, KF, PercentFuel, Visual)

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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.