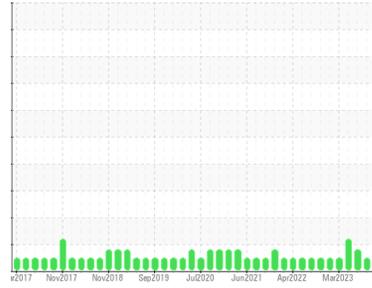




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id

167

Component

Rear Diesel Engine

Fluid

ESSO XD-3 EXTRA 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. 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

There is a high amount of fuel 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		WC0866496	WC0816358	WC0816478
Sample Date	Client Info		29 Nov 2023	11 Oct 2023	09 Aug 2023
Machine Age	kms	Client Info	0	0	0
Oil Age	kms	Client Info	9731	10305	9506
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	NORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>90	16	22	23
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	1	1	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	1
Copper	ppm	ASTM D5185(m)	>330	<1	1	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
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)		59	54	46
Barium	ppm	ASTM D5185(m)		<1	<1	0
Molybdenum	ppm	ASTM D5185(m)		<1	2	10
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		14	28	119
Calcium	ppm	ASTM D5185(m)	3780	2028	2205	2082
Phosphorus	ppm	ASTM D5185(m)	1370	817	905	932
Zinc	ppm	ASTM D5185(m)	1500	1001	1101	1086
Sulfur	ppm	ASTM D5185(m)	3800	2614	2835	2773
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

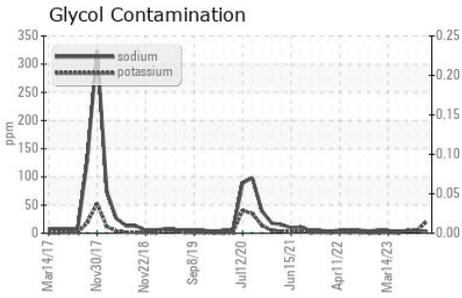
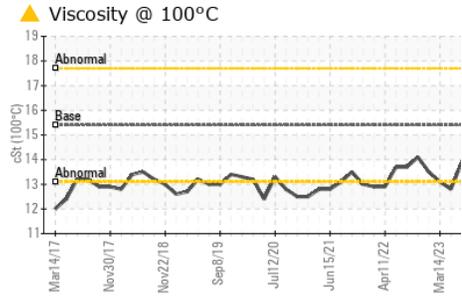
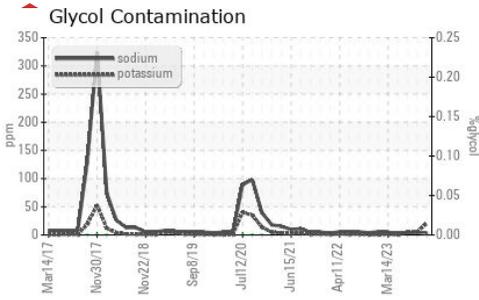
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Silicon	ppm	ASTM D5185(m)	>25	6	7	6
Sodium	ppm	ASTM D5185(m)	>192	3	5	4
Potassium	ppm	ASTM D5185(m)	>20	21	5	5
Fuel	%	ASTM D7593*	>3.0	8.4	<1.0	2.1
Glycol	%	ASTM D7922*		0.0	NEG	NEG

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	1.2	1.3	1.4
Nitration	Abs/cm	ASTM D7624*	>20	11.3	11.2	11.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.6	28.9	32.0

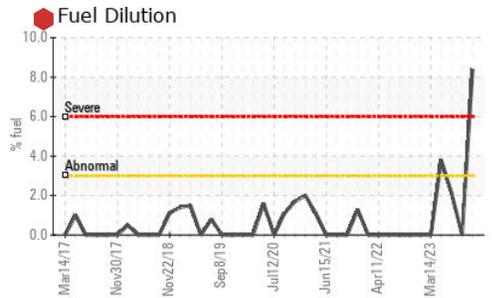
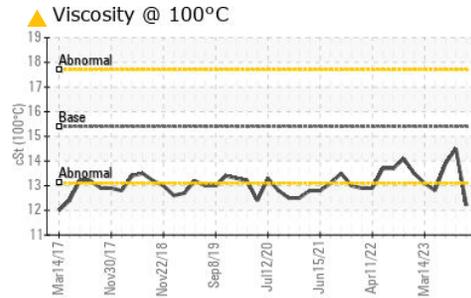
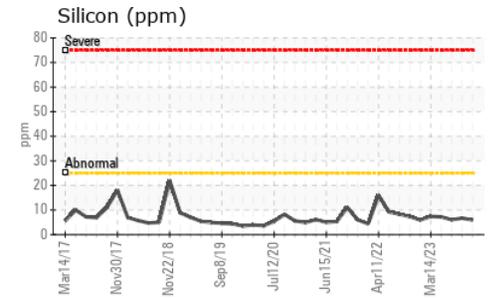
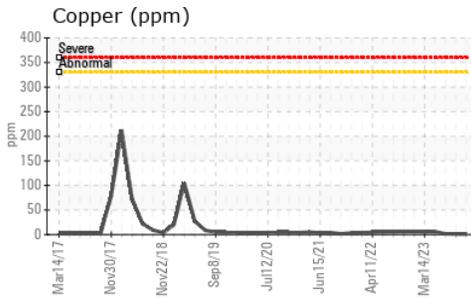
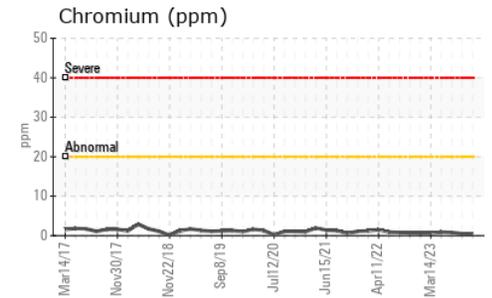
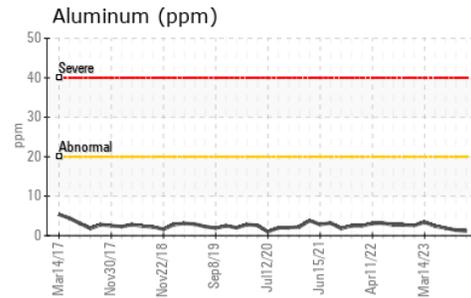
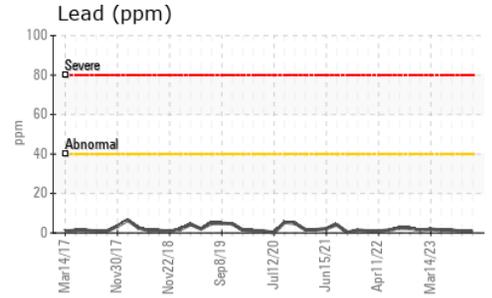
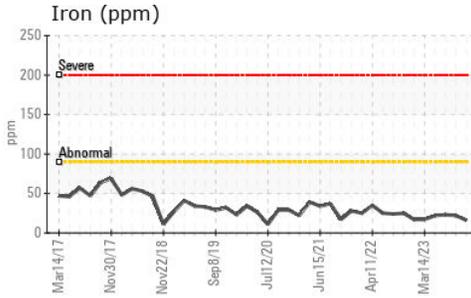


OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	25.2	26.2	31.7
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)	15.4	▲ 12.2	14.5	13.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0866496 **Received** : 07 Dec 2023
Lab Number : 02601515 **Diagnosed** : 08 Dec 2023
Unique Number : 5694600 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel)

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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.