



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**ROSENBAUER LAKESHORE E2**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (20 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0867246</b>	WC0726778	WC0623515
Sample Date		Client Info		<b>22 Jan 2024</b>	30 Jan 2023	19 Jan 2022
Machine Age	hrs	Client Info		<b>1497</b>	1383	1231
Oil Age	hrs	Client Info		<b>114</b>	152	86
Filter Age	hrs	Client Info		<b>114</b>	152	86
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>7</b>	8	6
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	1	1
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	3	2
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

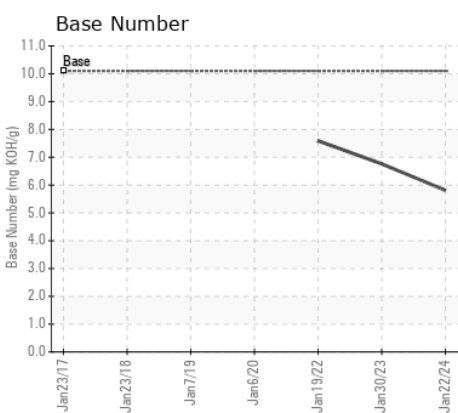
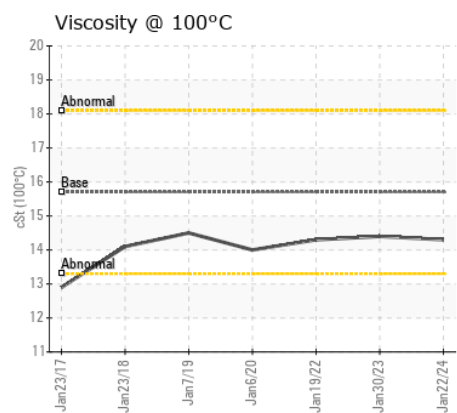
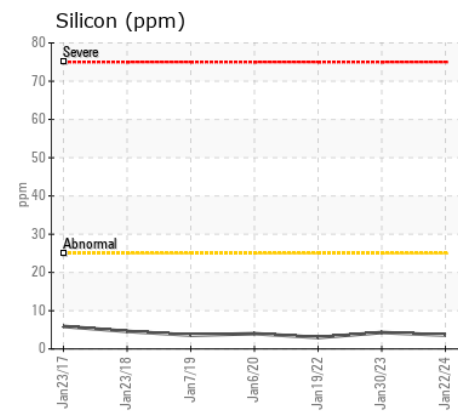
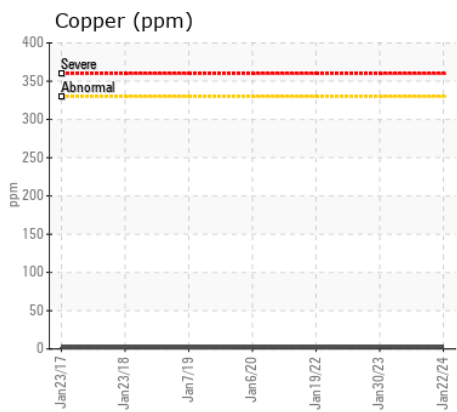
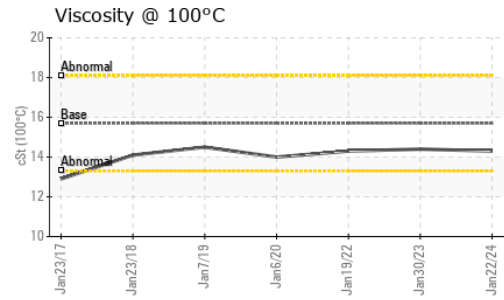
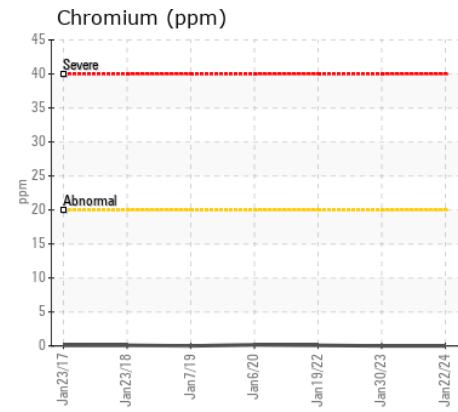
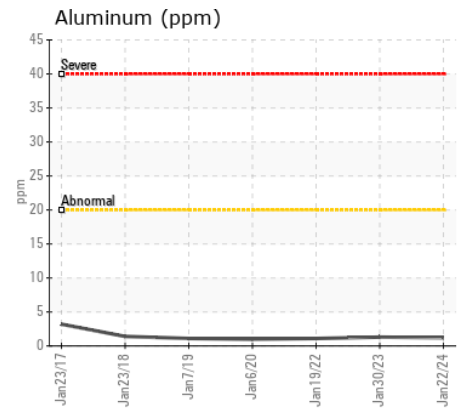
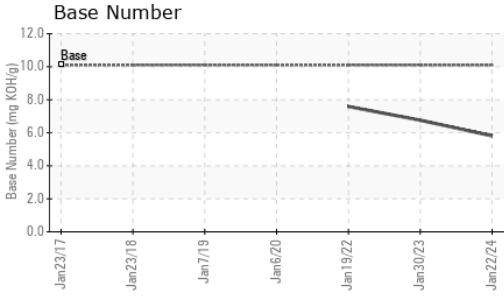
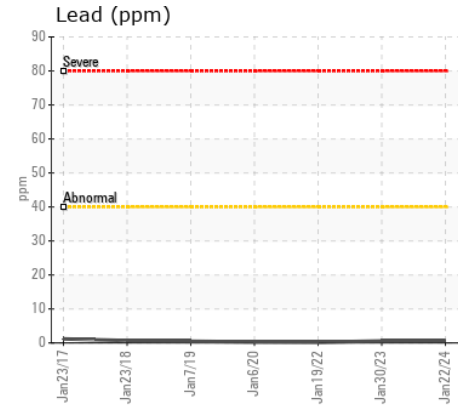
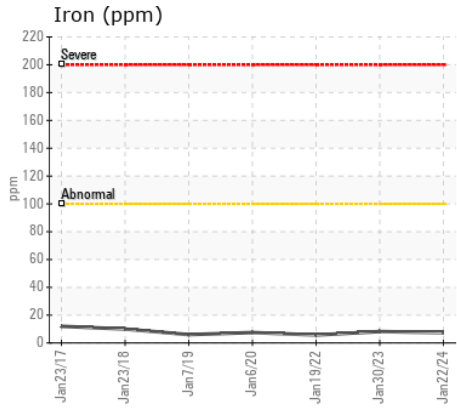
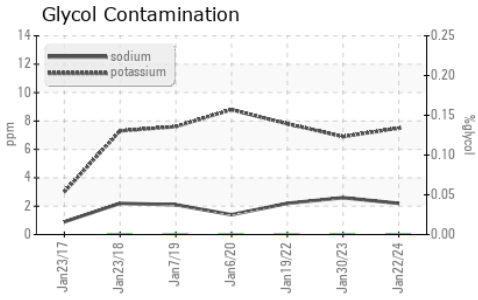
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	3
Potassium	ppm	ASTM D5185(m)	>20	<b>8</b>	7	8
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	0.0	0.0
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.7</b>	6.8	3.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.2</b>	20.3	10.4
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	.2%

## 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.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	3	2
Boron	ppm	ASTM D5185(m)	35	<b>163</b>	164	164
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	10	<b>13</b>	13	13
Calcium	ppm	ASTM D5185(m)	2340	<b>2145</b>	2293	2018
Phosphorus	ppm	ASTM D5185(m)	1110	<b>974</b>	1075	1009
Zinc	ppm	ASTM D5185(m)	1210	<b>1127</b>	1186	1127
Sulfur	ppm	ASTM D5185(m)	3890	<b>3072</b>	3185	2983
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.4</b>	14.1	7.6
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	<b>5.81</b>	6.76	7.59
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>14.3</b>	14.4	14.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0867246 **Received** : 24 Jan 2024  
**Lab Number** : 02610853 **Diagnosed** : 26 Jan 2024  
**Unique Number** : 5719948 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: Glycol )

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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.