

### **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

#### Machine Id

# KOHLER 60 LEONARD AVE GEN #2

Component Diesel Engine

Fluid KLONDIKE HEAVY DUTY 15W40 (--- LTR)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

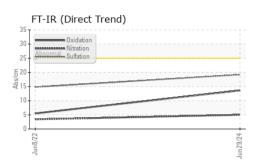
The condition of the oil is acceptable for the time in service.

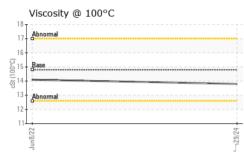
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0965961	WC0657599	
Sample Date		Client Info		29 Jun 2024	08 Jun 2022	
Machine Age	hrs	Client Info		323	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	J	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	1	2	
Chromium	ppm	ASTM D5185(m)	>20	0	0	
Nickel	ppm	ASTM D5185(m)	>4	0	<1	
Titanium	ppm	ASTM D5185(m)		<1	2	
Silver	ppm	ASTM D5185(m)	>3	0	0	
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	
Lead	ppm	ASTM D5185(m)	>40	0	<1	
Copper	ppm	ASTM D5185(m)	>330	<1	<1	
Tin	ppm	ASTM D5185(m)	>15	0	<1	
Antimony	ppm	ASTM D5185(m)		<1	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	70	288	91	
Barium	ppm	ASTM D5185(m)		0	0	
Molybdenum	ppm	ASTM D5185(m)		63	1	
Manganese	ppm	ASTM D5185(m)		0	<1	
Magnesium	ppm	ASTM D5185(m)	50	431	709	
Calcium	ppm	ASTM D5185(m)	2000	1426	1321	
Phosphorus	ppm	ASTM D5185(m)	1000	1012	1066	
Zinc	ppm	ASTM D5185(m)	1100	1152	1151	
Sulfur	ppm	ASTM D5185(m)	3400	2832	3213	
Lithium	ppm	ASTM D5185(m)		<1	0	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4	5	
Sodium	ppm	ASTM D5185(m)		2	3	
Potassium	ppm	ASTM D5185(m)	>20	<1	3	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	5.0	3.4	
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2	14.8	



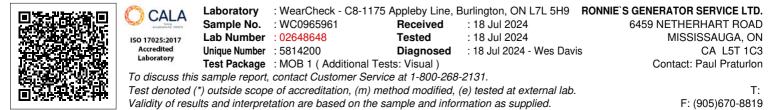
## **OIL ANALYSIS REPORT**

FLUID DEGRADATION method





		methou	IIIIIIVDase	current	nistory i	Thistory2
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.6	5.5	
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	NONE		
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	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.8	13.8	14.1	
GRAPHS						
Iron (ppm)				Lead (ppm)		
Severe			80	Samara		
0+						
0 - Abnormal			e 40	Abnormal		
0			20	1		
			0			
Jun8/22			Jun29/24	Jun8/22		
Aluminum (ppm)				Chromium (p	pm)	
			50			
			40	1 9		
0 - Abnormal			<sup>30</sup> علي 20	Abnormal		
0-			10			
Jun8/22			Jun29/24	Jun8/22		
Copper (ppm)			7	Silicon (ppm)		
0 Severe			80			
0			60 E to			
0-			<u>특</u> 40	Abnormai		
0-			20			
22 127			0	/22		
Jun8/22			Jun29/24	Jun8/22		
Viscosity @ 100°C			-	Soot %		
Abnormal			6.0	Severe		
Base				17		
4 - Abnormal			2.0	Abnormal		
2						
0 4				2		
2			2	2		
Jun8/22			Jun29/24	Jun8/22		



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