

Machine Id
CRUSADER NIEL ROSE
Component
Port Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 15W40. Please confirm.

Wear

Metal levels are typical for a new component breaking in.

▲ Contamination

There is a high concentration of water present in the oil. Free water present. Test for glycol is negative.

▲ Fluid Condition

The white residue present in the sample is oil additive precipitate. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info	PC0083400	---	---
Sample Date	Client Info	08 Jun 2024	---	---
Machine Age	hrs	Client Info	200	---
Oil Age	hrs	Client Info	1	---
Oil Changed	Client Info	Changed	---	---
Sample Status		SEVERE	---	---

CONTAMINATION method limit/base current history1 history2

Fuel	WC Method	>5	<1.0	---	---
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WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185(m)	>100	79	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	3	---	---
Lead	ppm	ASTM D5185(m)	>40	<1	---	---
Copper	ppm	ASTM D5185(m)	>330	13	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)	250	165	---	---
Barium	ppm	ASTM D5185(m)	10	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	100	2	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)	450	37	---	---
Calcium	ppm	ASTM D5185(m)	3000	2124	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	897	---	---
Zinc	ppm	ASTM D5185(m)	1350	1098	---	---
Sulfur	ppm	ASTM D5185(m)	4250	2782	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

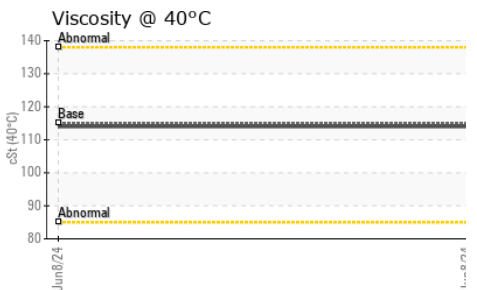
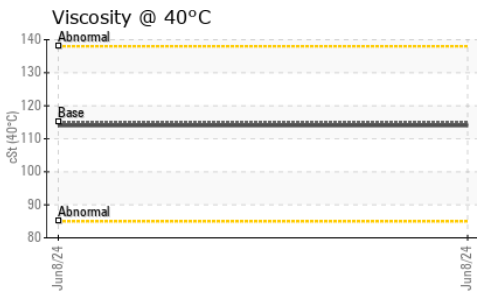
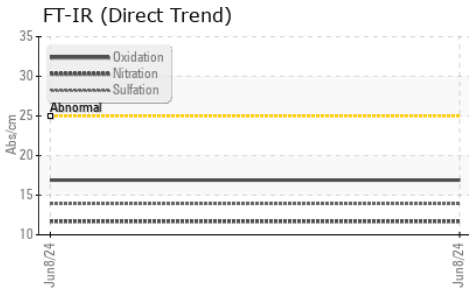
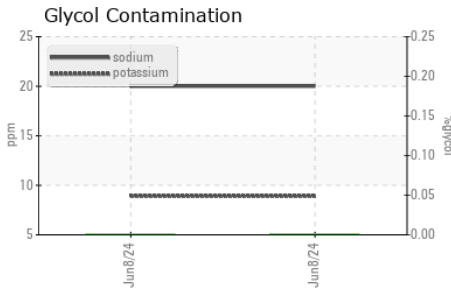
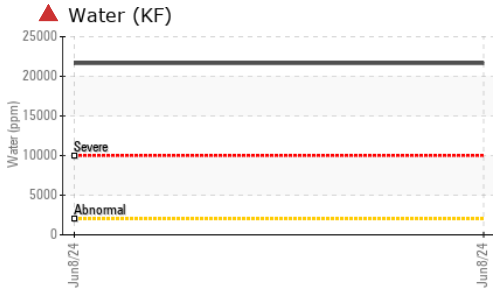
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>25	15	---	---
Sodium	ppm	ASTM D5185(m)	>158	20	---	---
Potassium	ppm	ASTM D5185(m)	>20	9	---	---
Water	%	ASTM D6304*	>0.2	▲ 2.164	---	---
ppm Water	ppm	ASTM D6304*	>2000	▲ 21649	---	---
Glycol	%	ASTM D7922*		0.0	---	---

INFRA-RED method limit/base current history1 history2

Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	11.7	---	---
Sulfation	Abs./1mm	ASTM D7415*	>30	13.9	---	---

OIL ANALYSIS REPORT

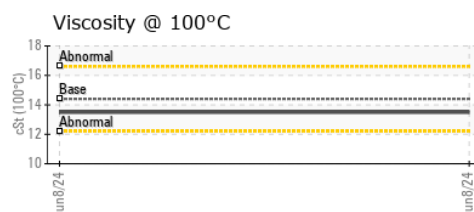
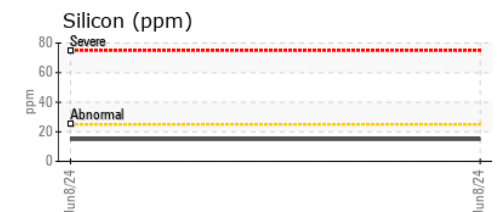
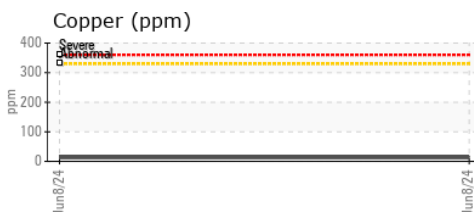
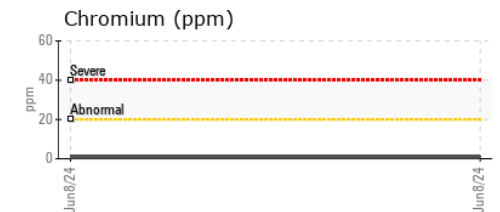
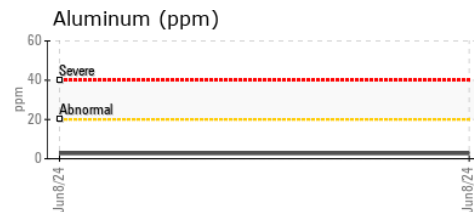
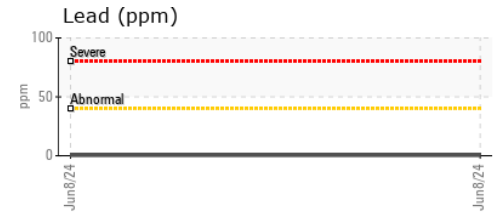
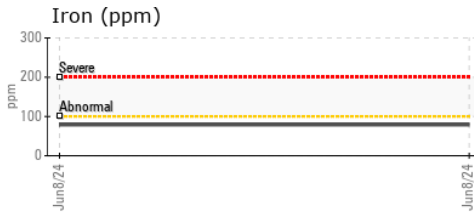


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	16.9	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	▲ LIGHT	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	▲ MILKY	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Free Water	scalar	Visual*		▲ 5%	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	115	114	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	126	115	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083400 **Received** : 12 Jun 2024
Lab Number : **02641386** **Tested** : 13 Jun 2024
Unique Number : 5798925 **Diagnosed** : 13 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Bottom, Glycol, KF, KV40, VI, 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.