



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id
GENERAC SIMPSONVILLE FD
 Component
Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (3 QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0887876	WC0458245	WC0545196
Sample Date		Client Info		05 Apr 2024	03 May 2021	24 Mar 2021
Machine Age	hrs	Client Info		463	0	401
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				MARGINAL	MARGINAL	SEVERE

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	2	<1	1
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	<1	<1
Lead	ppm	ASTM D5185m	>40	2	1	1
Copper	ppm	ASTM D5185m	>330	<1	0	<1
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

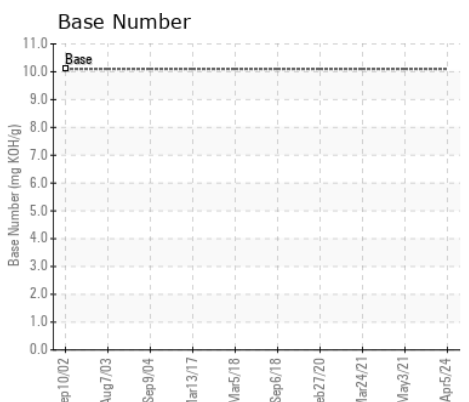
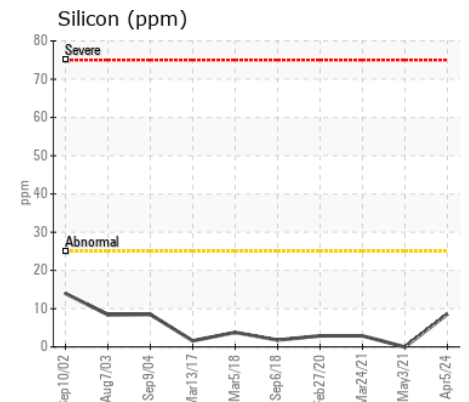
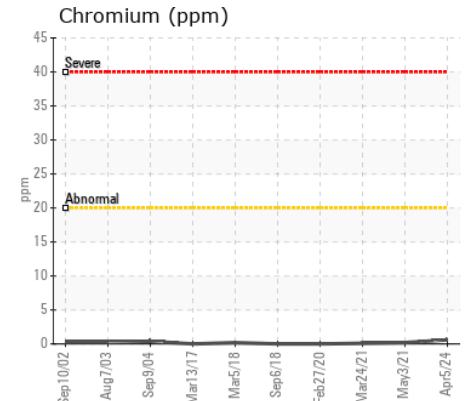
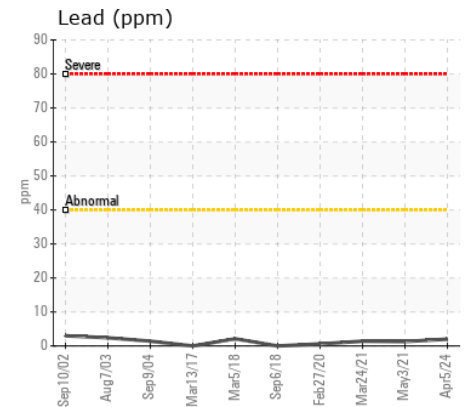
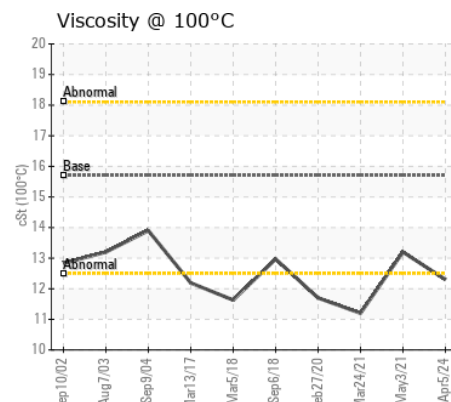
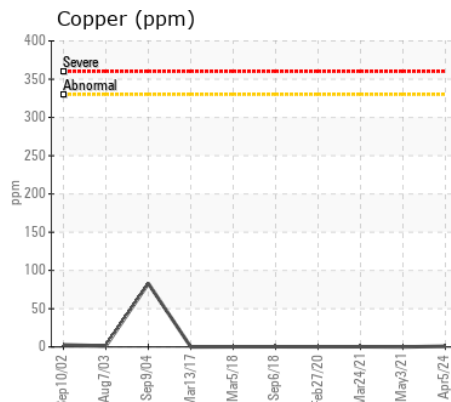
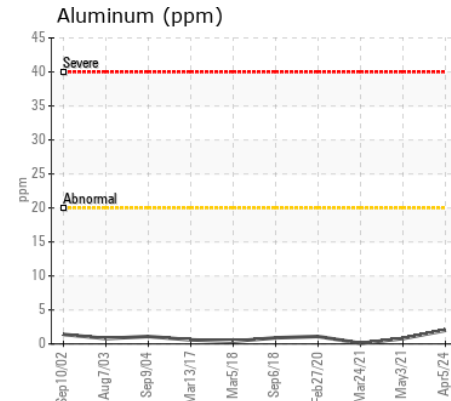
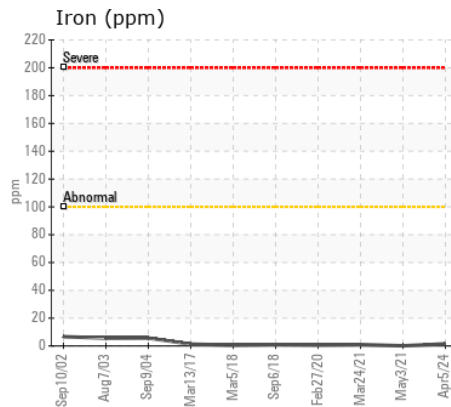
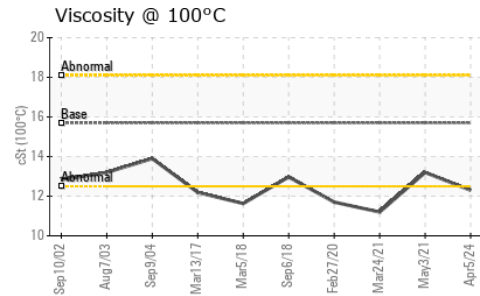
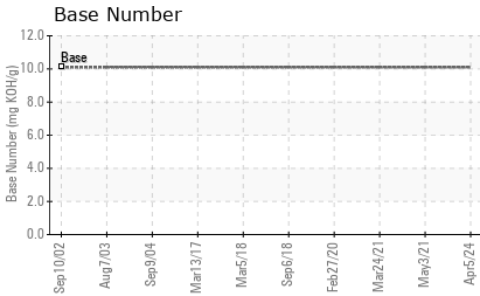
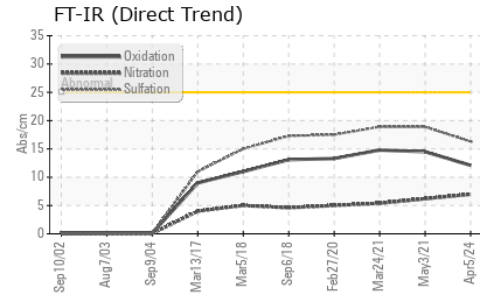
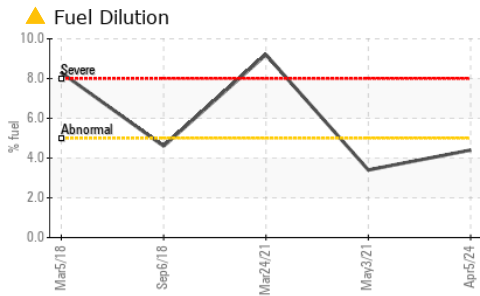
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	9	0	3
Potassium	ppm	ASTM D5185m	>20	2	2	<1
Fuel	%	ASTM D3524	>5	▲ 4.4	▲ 3.4	▲ 9.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.2	5.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.3	18.9	18.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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 D5185m		2	0	<1
Boron	ppm	ASTM D5185m	316	102	78	58
Barium	ppm	ASTM D5185m	0.0	<1	0	0
Molybdenum	ppm	ASTM D5185m	1.2	79	66	51
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	24	76	283	654
Calcium	ppm	ASTM D5185m	2292	1941	1778	1183
Phosphorus	ppm	ASTM D5185m	1064	1031	1027	927
Zinc	ppm	ASTM D5185m	1160	1043	1192	1100
Sulfur	ppm	ASTM D5185m	4996	3916	3073	2633
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.1	14.5	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.0	---	---
Visc @ 100°C	cSt	ASTM D445	15.7	12.3	13.2	▲ 11.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0887876 **Received** : 12 Apr 2024
Lab Number : 06146935 **Tested** : 17 Apr 2024
Unique Number : 10977013 **Diagnosed** : 17 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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