



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
GENERAC OLD RALEIGH RD
 Component
Propane Engine
 Fluid
SHELL ROTELLA T 15W40 (4 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0933169	WC0329430	WCM1383385
Sample Date		Client Info		16 May 2024	09 May 2019	23 May 2018
Machine Age	hrs	Client Info		379	305	325
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	2	1	1
Chromium	ppm	ASTM D5185m	>25	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	2	2
Lead	ppm	ASTM D5185m	>25	9	2	3
Copper	ppm	ASTM D5185m	>35	5	<1	<1
Tin	ppm	ASTM D5185m	>8	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

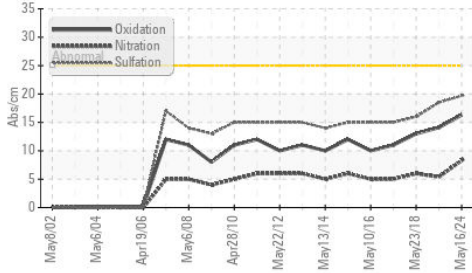
Silicon	ppm	ASTM D5185m	>50	20	11	13
Potassium	ppm	ASTM D5185m	>20	0	2	14
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	8.3	5.4	6.
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	18.5	16.
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

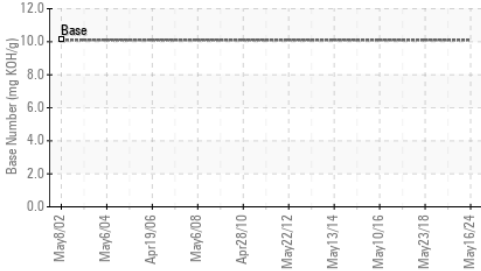
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	3	3
Boron	ppm	ASTM D5185m	316	65	10	16
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	1.2	84	59	60
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	24	332	932	914
Calcium	ppm	ASTM D5185m	2292	2351	1110	1124
Phosphorus	ppm	ASTM D5185m	1064	1157	934	1009
Zinc	ppm	ASTM D5185m	1160	1409	1172	1156
Sulfur	ppm	ASTM D5185m	4996	4311	2730	2582
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	14.1	13.
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	6.9	---	---
Visc @ 100°C	cSt	ASTM D445	15.7	15.3	14.9	14.54

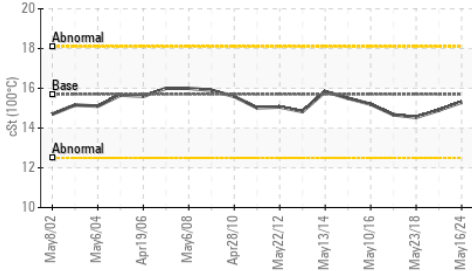
FT-IR (Direct Trend)



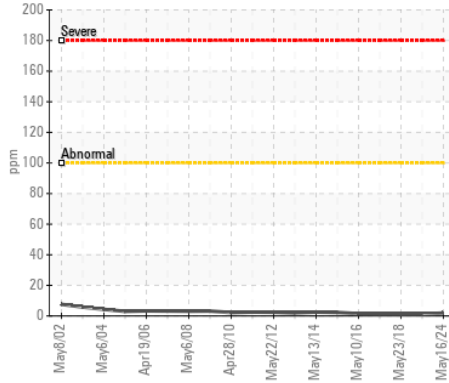
Base Number



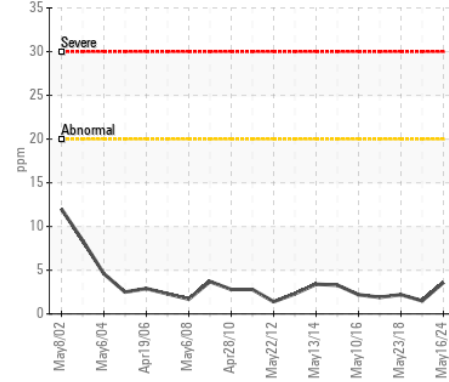
Viscosity @ 100°C



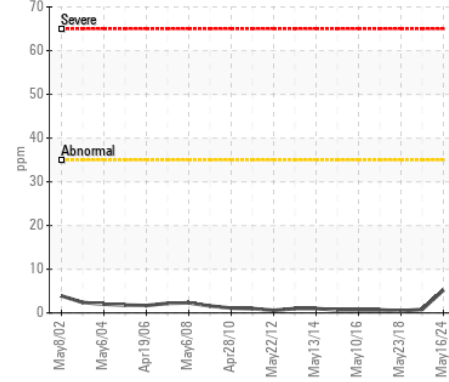
Iron (ppm)



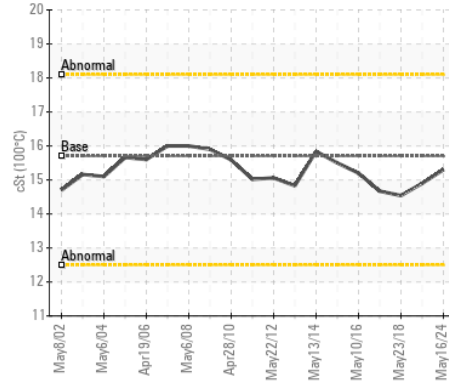
Aluminum (ppm)



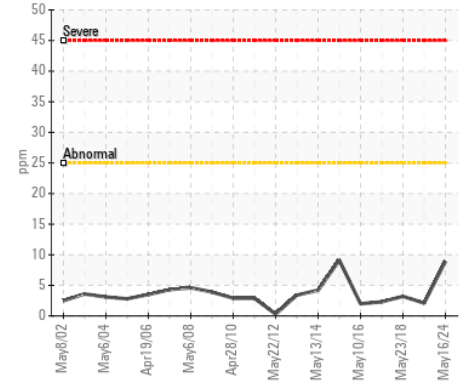
Copper (ppm)



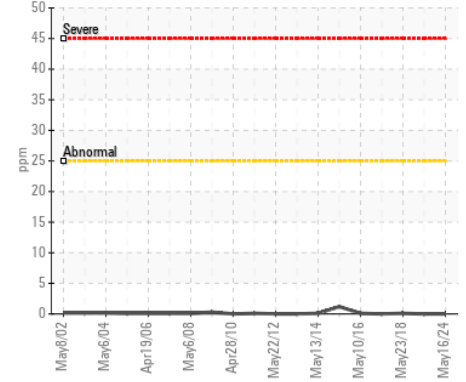
Viscosity @ 100°C



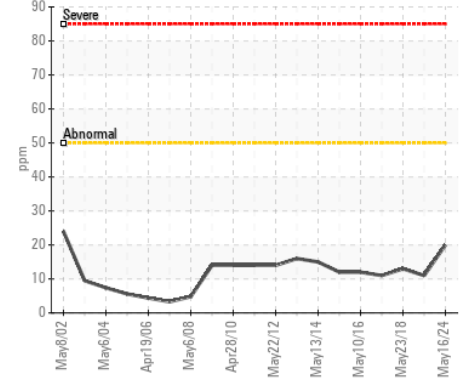
Lead (ppm)



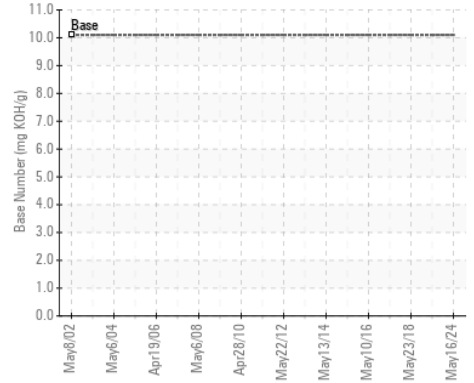
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0933169
Lab Number : 06188850
Unique Number : 11045602
Test Package : MOB 1

Received : 23 May 2024
Tested : 24 May 2024
Diagnosed : 24 May 2024 - Wes Davis

PIEDMONT GENERATOR
 7560 NC HWY 22 NORTH
 CLIMAX, NC
 US 27233

Contact: TERRY SHEPPARD
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 F: (336)685-5297

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)