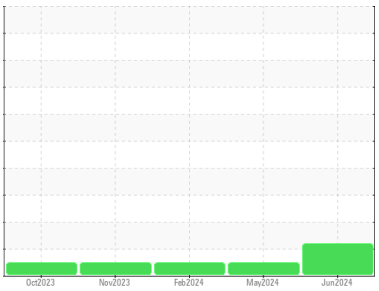
OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Machine Id
G200
Component
Biogas Engine
Fluid
PETRO CANADA SENTRON LD 5000 (--- GAL)

DIAGNOSIS

Recommendation
We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The AN level is above the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0069020**	PCA0069080	PCA0069057
Sample Date		Client Info		**15 Jun 2024**	01 May 2024	23 Feb 2024
Machine Age	hrs	Client Info		**12731**	11988	11146
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	N/A	Not Changd
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.1	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>45	**13**	12	6
Chromium	ppm	ASTM D5185m	>2	**1**	2	1
Nickel	ppm	ASTM D5185m	>2	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m	>5	**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**1**	2	1
Lead	ppm	ASTM D5185m	>5	**1**	3	2
Copper	ppm	ASTM D5185m	>14	**0**	1	<1
Tin	ppm	ASTM D5185m	>13	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	**1**	0	0
Barium	ppm	ASTM D5185m	3	**0**	1	0
Molybdenum	ppm	ASTM D5185m	0	**<1**	3	<1
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	4	**24**	23	22
Calcium	ppm	ASTM D5185m	1727	**2212**	2221	1957
Phosphorus	ppm	ASTM D5185m	272	**357**	416	326
Zinc	ppm	ASTM D5185m	333	**452**	467	419
Sulfur	ppm	ASTM D5185m	3415	**4144**	4465	3331

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>200	**2**	3	3
Sodium	ppm	ASTM D5185m		**5**	<1	4
Potassium	ppm	ASTM D5185m	>20	**2**	4	<1

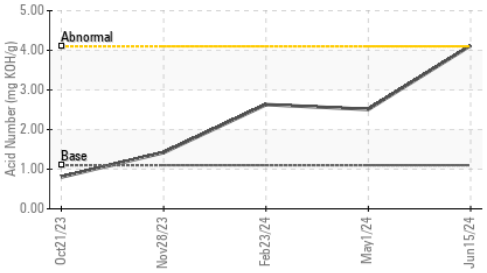
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**8.8**	8.3	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.9**	23.2	22.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**21.0**	19.6	19.0
Acid Number (AN)	mg KOH/g	ASTM D8045	1.1	**4.121**	2.51	2.63
Base Number (BN)	mg KOH/g	ASTM D2896	4.9	**3.05**	2.97	2.95

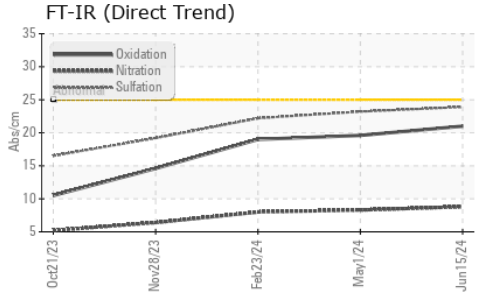
OIL DIAGNOSTICS

OIL ANALYSIS REPORT

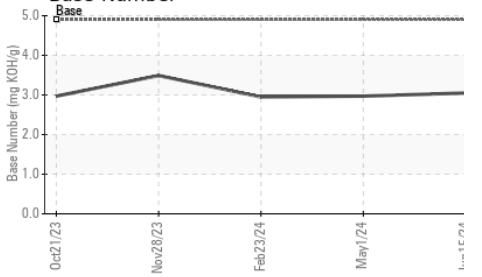
Acid Number



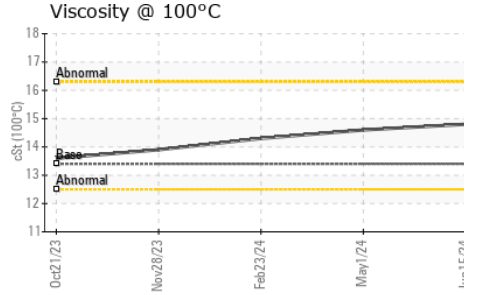
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

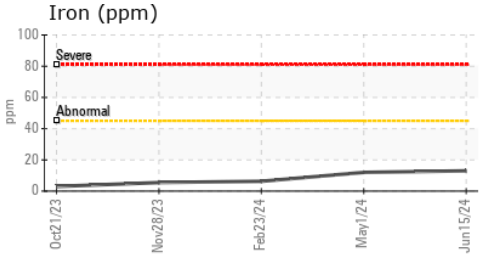


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

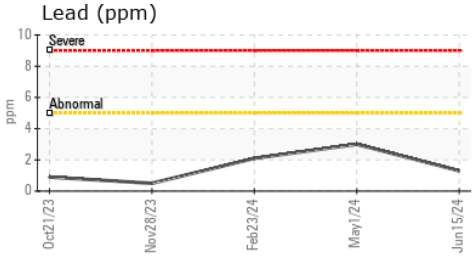
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.4	**14.8**	14.6	14.3

GRAPHS

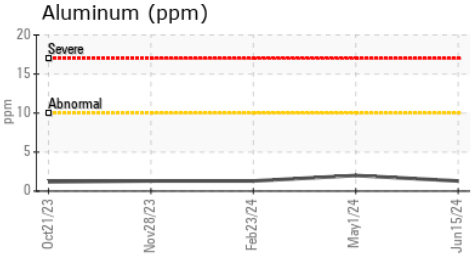
Iron (ppm)



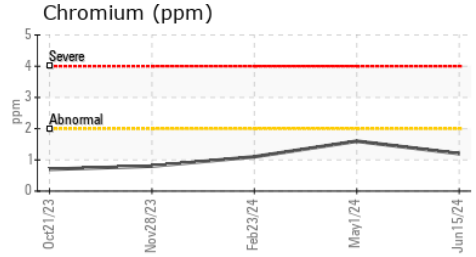
Lead (ppm)



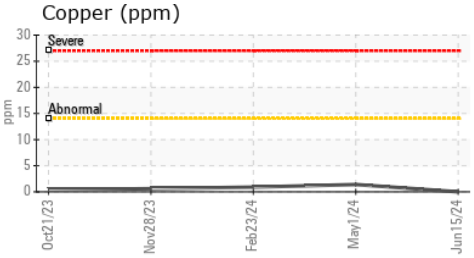
Aluminum (ppm)



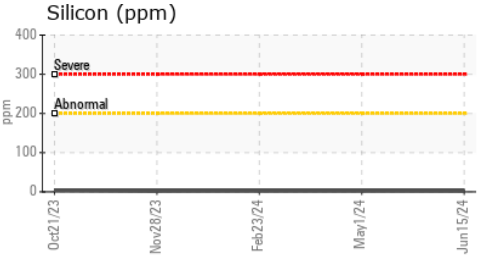
Chromium (ppm)



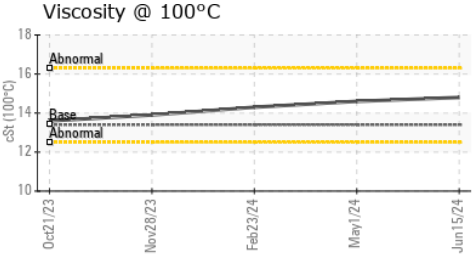
Copper (ppm)



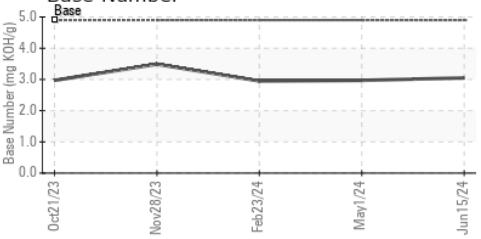
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0069020
Lab Number : 06227681
Unique Number : 11111174
Test Package : MOB 2

Received : 03 Jul 2024
Tested : 15 Jul 2024
Diagnosed : 15 Jul 2024 - Sean Felton

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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