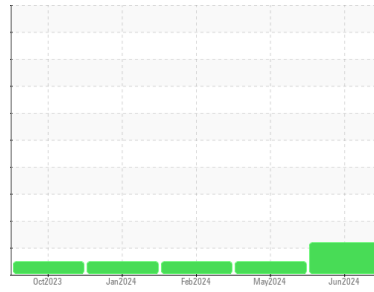


# OIL ANALYSIS REPORT

Sample Rating Trend



**DEGRADATION**



Machine Id  
**G100**  
 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			<b>PCA0069019</b>	PCA0069079	PCA0069056
Sample Date	Client Info			<b>15 Jun 2024</b>	01 May 2024	23 Feb 2024
Machine Age	hrs	Client Info		<b>14576</b>	13846	12829
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Chngd</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>4.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.1		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>45	<b>23</b>	27	26
Chromium	ppm	ASTM D5185m	>2	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>5	<b>3</b>	5	3
Copper	ppm	ASTM D5185m	>14	<b>0</b>	1	<1
Tin	ppm	ASTM D5185m	>13	<b>&lt;1</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>1</b>	0	<1
Barium	ppm	ASTM D5185m	3	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	4	<1
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	4	<b>40</b>	33	24
Calcium	ppm	ASTM D5185m	1727	<b>2371</b>	2357	2093
Phosphorus	ppm	ASTM D5185m	272	<b>394</b>	451	344
Zinc	ppm	ASTM D5185m	333	<b>499</b>	515	449
Sulfur	ppm	ASTM D5185m	3415	<b>4349</b>	4868	3451

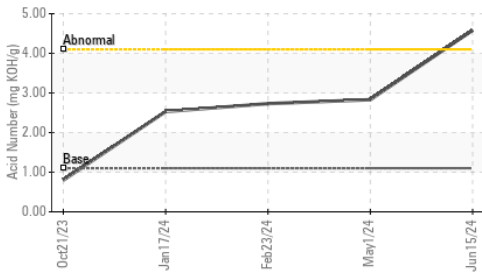
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>200	<b>2</b>	3	3
Sodium	ppm	ASTM D5185m		<b>6</b>	3	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	4	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	9.0	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.6</b>	25.3	23.7

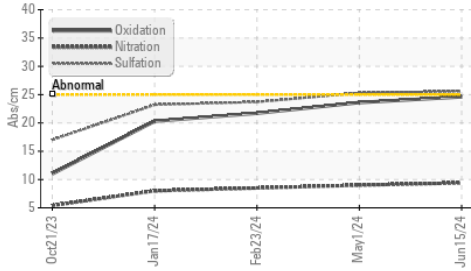
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>24.6</b>	23.6	21.7
Acid Number (AN)	mg KOH/g	ASTM D8045	1.1	<b>4.583</b>	2.83	2.73
Base Number (BN)	mg KOH/g	ASTM D2896	4.9	<b>3.32</b>	3.32	3.25

# OIL ANALYSIS REPORT

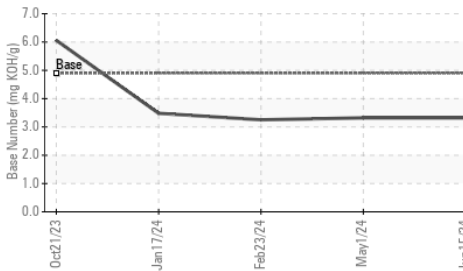
## ▲ Acid Number



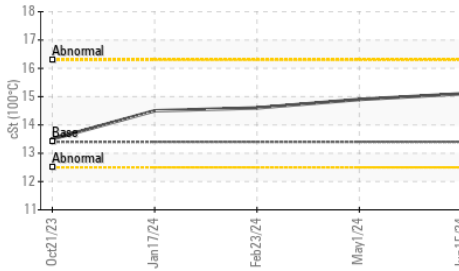
## FT-IR (Direct Trend)



## Base Number



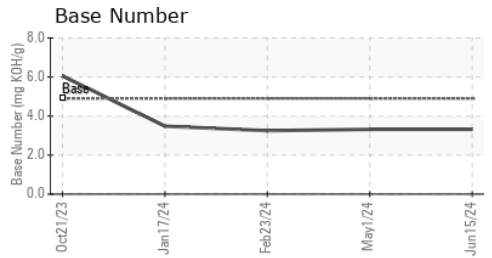
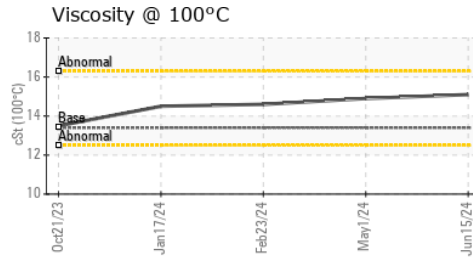
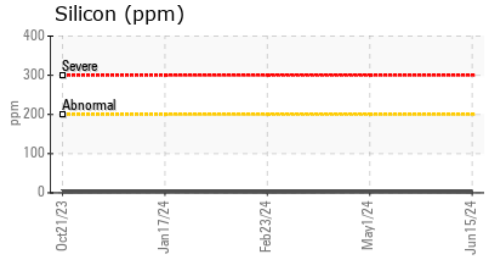
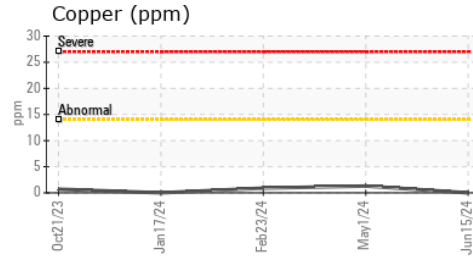
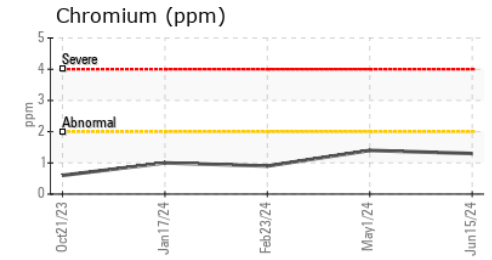
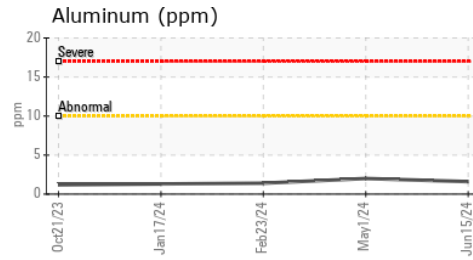
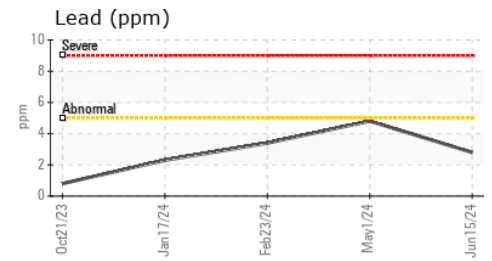
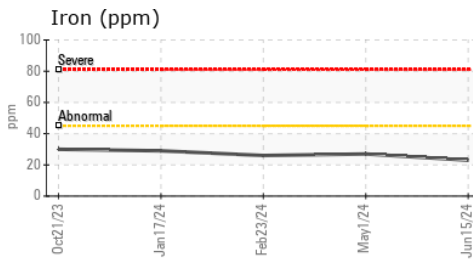
## Viscosity @ 100°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.4	15.1	14.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0069019

**Lab Number** : 06227680

**Unique Number** : 11111173

**Test Package** : MOB 2

**Received** : 03 Jul 2024

**Tested** : 15 Jul 2024

**Diagnosed** : 15 Jul 2024 - Sean Felton

**YAAMAVA RESORT AND CASINO**

777 SAN MANUEL BLVD

HIGHLAND, CA

US 92346

Contact: JOSHUA AVILA

joshua.avila@yaamava.com

T:

F:

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)