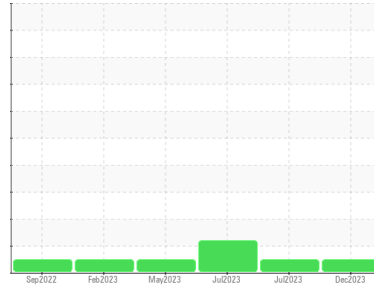


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0069072	PCA0069067	PCA0069058
Sample Date	Client Info	19 Dec 2023	31 Jul 2023	15 Jul 2023
Machine Age	hrs	10335	17559	7901
Oil Age	hrs	0	0	0
Oil Changed	Client Info	Not Changed	N/A	N/A
Sample Status		NORMAL	NORMAL	ABNORMAL

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	5	14	20
Chromium	ppm ASTM D5185m >2	1	2	2
Nickel	ppm ASTM D5185m >2	<1	<1	<1
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >5	0	0	0
Aluminum	ppm ASTM D5185m >10	2	2	2
Lead	ppm ASTM D5185m >5	1	4	10
Copper	ppm ASTM D5185m >14	<1	1	1
Tin	ppm ASTM D5185m >13	<1	<1	<1
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 2	<1	11	2
Barium	ppm ASTM D5185m 3	0	0	0
Molybdenum	ppm ASTM D5185m 0	0	388	2
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 4	24	14	24
Calcium	ppm ASTM D5185m 1727	1957	1689	2295
Phosphorus	ppm ASTM D5185m 272	328	325	367
Zinc	ppm ASTM D5185m 333	426	408	479
Sulfur	ppm ASTM D5185m 3415	3495	2604	4474

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >200	2	6	3
Sodium	ppm ASTM D5185m	4	3	5
Potassium	ppm ASTM D5185m >20	2	2	3

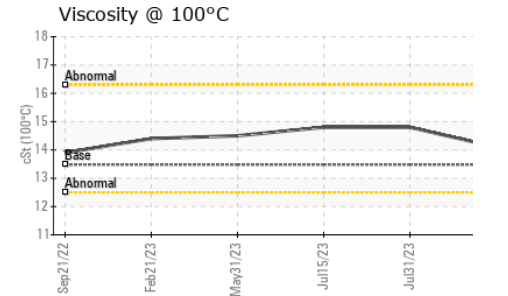
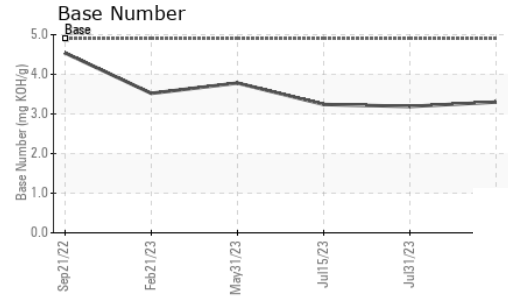
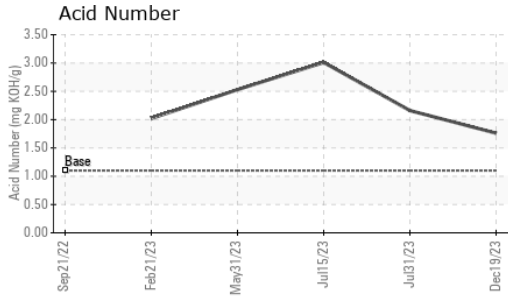
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0.1	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	7.0	8.3	8.6
Sulfation	Abs/.1mm *ASTM D7415 >30	20.6	20.1	23.9

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	16.3	19.5	20.9
Acid Number (AN)	mg KOH/g ASTM D8045 1.1	1.76	2.16	▲ 3.01
Base Number (BN)	mg KOH/g ASTM D2896 4.9	3.30	3.19	3.24

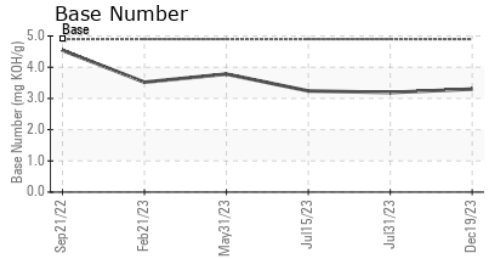
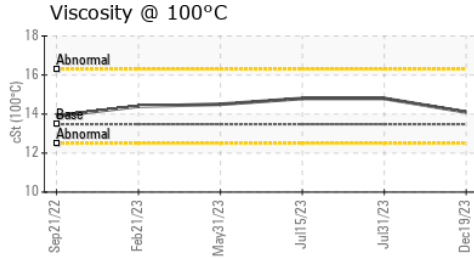
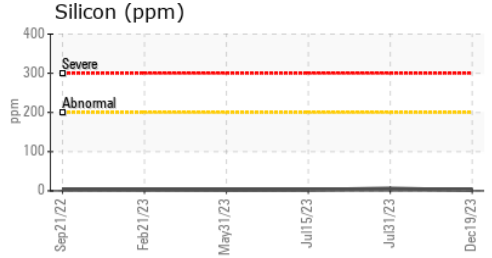
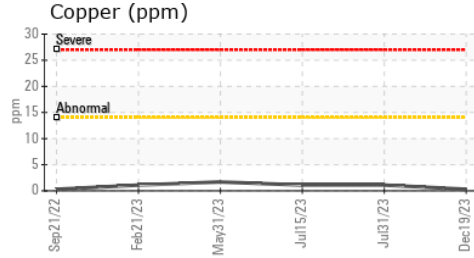
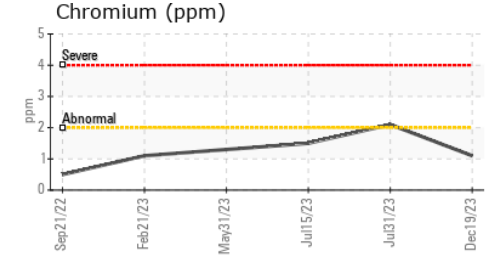
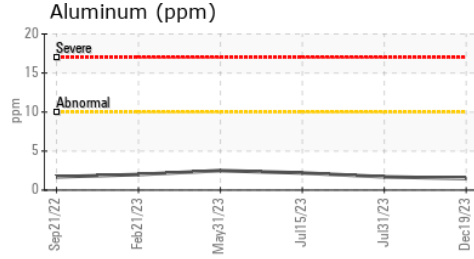
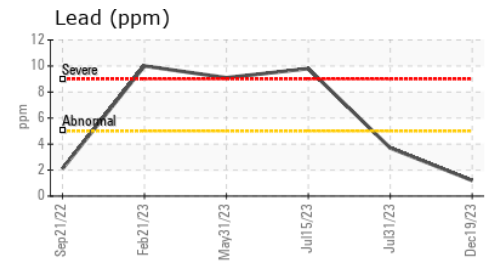
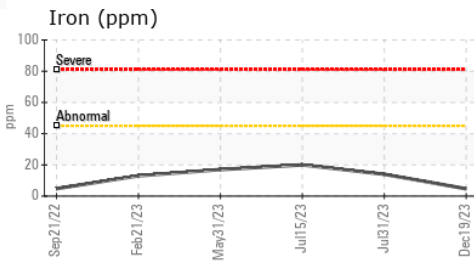
OIL ANALYSIS REPORT



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	13.48	14.1	14.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0069072
Lab Number : 06050157
Unique Number : 10816106
Test Package : MOB 2

MARBORG RECOVERY/DIANI
 14470 CALLE REAL
 GOLETA, CA
 US 93117
 Contact: Service Manager

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)

T:
F: