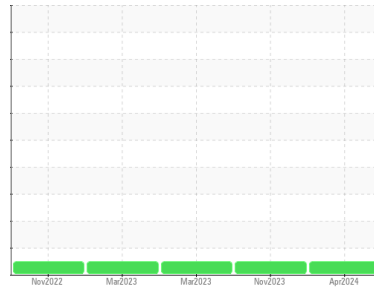


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
Z966
 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			PCA0069073	PCA0069077	PCA0069104
Sample Date	Client Info			02 Apr 2024	10 Nov 2023	07 Mar 2023
Machine Age	hrs	Client Info		13181	11119	7043
Oil Age	hrs	Client Info		0	977	3043
Oil Changed	Client Info			Not Changed	Not Changed	N/A
Sample Status				NORMAL	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	28	29	4
Chromium	ppm	ASTM D5185m	>2	2	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	1	2
Lead	ppm	ASTM D5185m	>5	4	0	1
Copper	ppm	ASTM D5185m	>14	1	0	0
Tin	ppm	ASTM D5185m	>13	1	1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<1	<1	2
Barium	ppm	ASTM D5185m	3	0	0	0
Molybdenum	ppm	ASTM D5185m	0	3	<1	2
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	4	23	22	14
Calcium	ppm	ASTM D5185m	1727	2229	2000	1957
Phosphorus	ppm	ASTM D5185m	272	372	325	334
Zinc	ppm	ASTM D5185m	333	475	400	371
Sulfur	ppm	ASTM D5185m	3415	3779	3279	3631

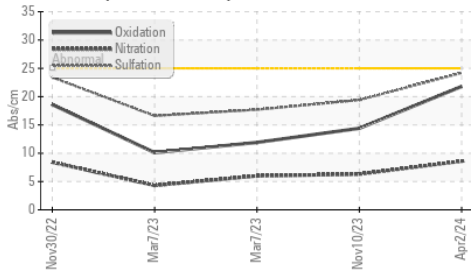
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>200	3	2	8
Sodium	ppm	ASTM D5185m		6	4	2
Potassium	ppm	ASTM D5185m	>20	3	<1	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.6	6.3	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	19.4	17.7

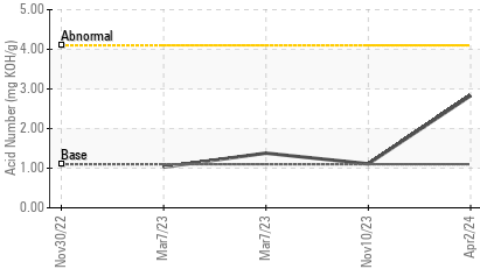
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	14.4	11.9
Acid Number (AN)	mg KOH/g	ASTM D8045	1.1	2.83	1.11	1.38
Base Number (BN)	mg KOH/g	ASTM D2896	4.9	3.47	3.77	4.53

OIL ANALYSIS REPORT

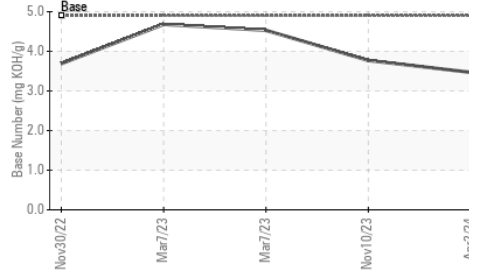
FT-IR (Direct Trend)



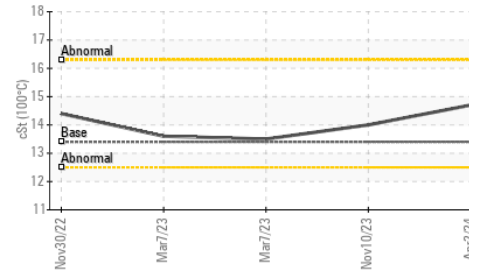
Acid Number



Base Number



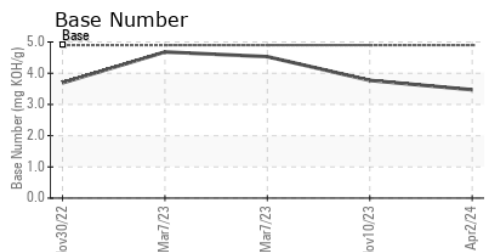
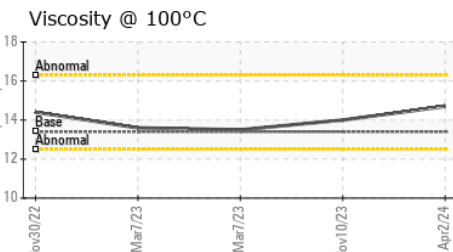
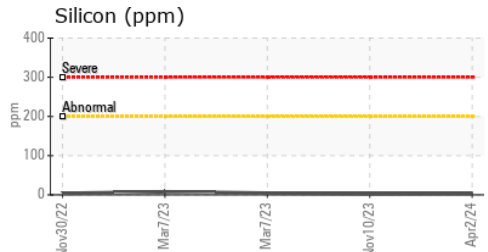
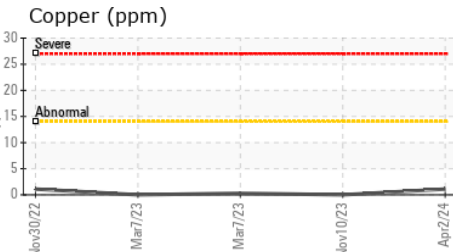
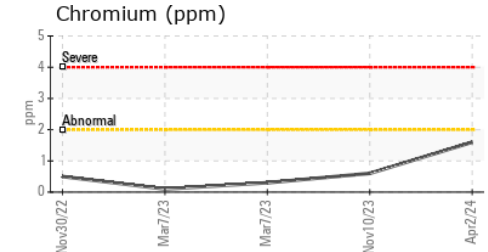
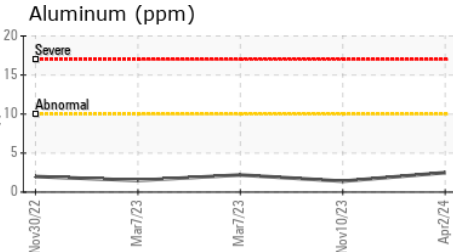
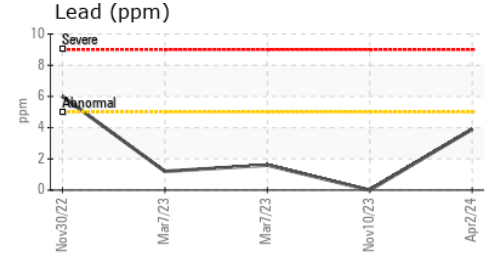
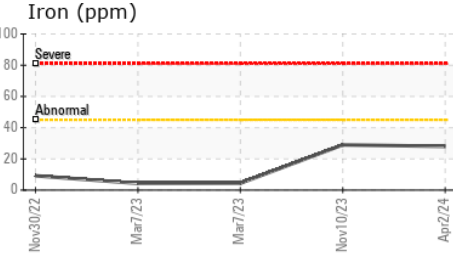
Viscosity @ 100°C



PARAMETER	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

PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.4	14.7	14.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0069073
Lab Number : 06159304
Unique Number : 10994727
Test Package : MOB 2

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 26 Apr 2024 - Don Baldrige

YAAJAVA RESORT AND CASINO
 777 SAN MANUEL BLVD
 HIGHLAND, CA
 US 92346
 Contact: JOSHUA AVILA
 joshua.avila@yaamava.com

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)