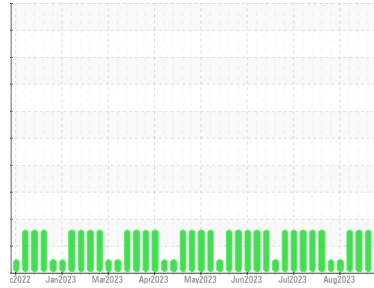




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
GZJ00403
Component
Biogas Engine
Fluid
PETRO CANADA SENTRON CG 40 (--- GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Total oil added 108 gallons)

Wear
All component wear rates are normal.

Contamination
Fuel content negligible. Elemental level of silicon (Si) above normal.

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		WC0836480	WC0836452	WC0836457
Sample Date	Client Info		25 Sep 2023	18 Sep 2023	11 Sep 2023
Machine Age	hrs	Client Info	117538	117375	117208
Oil Age	hrs	Client Info	922	759	592
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >45	7	6	6
Chromium	ppm	ASTM D5185m >2	0	0	<1
Nickel	ppm	ASTM D5185m >2	0	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >5	0	0	0
Aluminum	ppm	ASTM D5185m >10	<1	<1	6
Lead	ppm	ASTM D5185m >5	4	4	1
Copper	ppm	ASTM D5185m >14	1	1	2
Tin	ppm	ASTM D5185m >13	6	5	4
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 0	0	0	0
Barium	ppm	ASTM D5185m 1	0	0	0
Molybdenum	ppm	ASTM D5185m 2	<1	1	<1
Manganese	ppm	ASTM D5185m 1	0	<1	<1
Magnesium	ppm	ASTM D5185m 9	11	15	14
Calcium	ppm	ASTM D5185m 2712	3068	3067	2968
Phosphorus	ppm	ASTM D5185m 292	321	312	303
Zinc	ppm	ASTM D5185m 342	389	380	364
Sulfur	ppm	ASTM D5185m 2575	3706	3989	4036

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >200	▲ 385	▲ 344	▲ 298
Sodium	ppm	ASTM D5185m	2	<1	2
Potassium	ppm	ASTM D5185m >20	0	<1	0
Fuel	%	ASTM D3524 >4.0	0.3	0.6	0.6

INFRA-RED

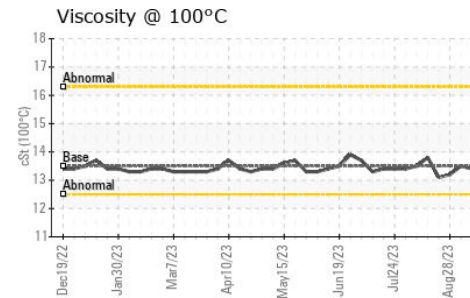
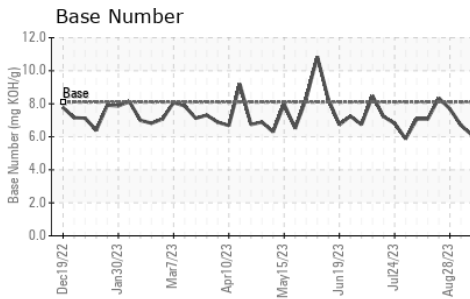
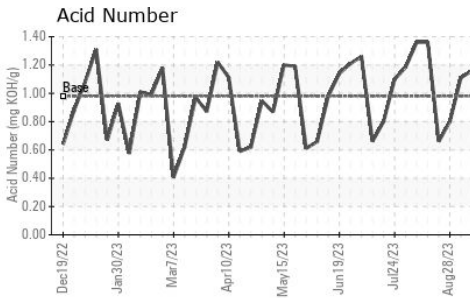
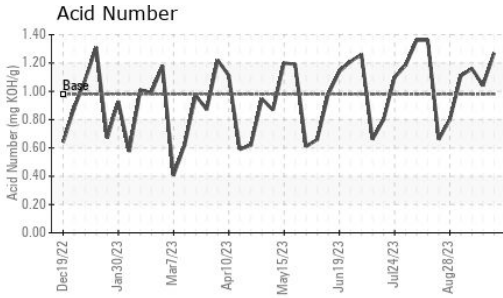
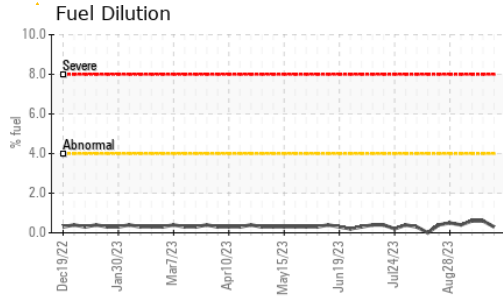
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	6.1	7.0	5.8
Sulfation	Abs.1mm	*ASTM D7415 >30	22.4	25.2	21.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs.1mm	*ASTM D7414 >25	15.1	16.4	13.1
Acid Number (AN)	mg KOH/g	ASTM D8045 0.98	1.27	1.04	1.16
Base Number (BN)	mg KOH/g	ASTM D2896 8.1	6.12	6.28	6.10



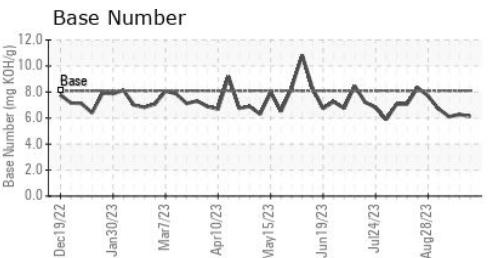
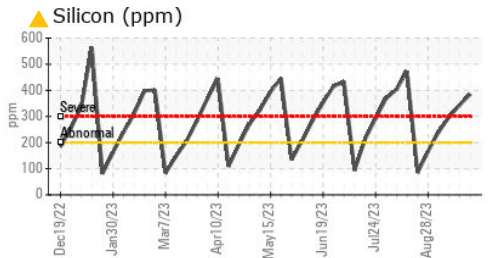
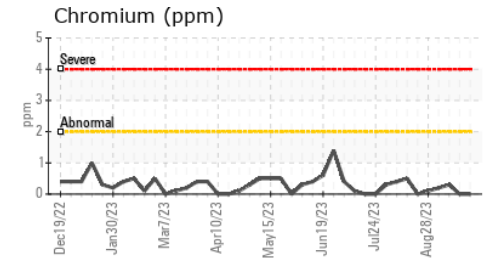
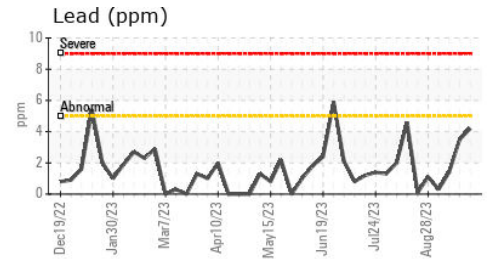
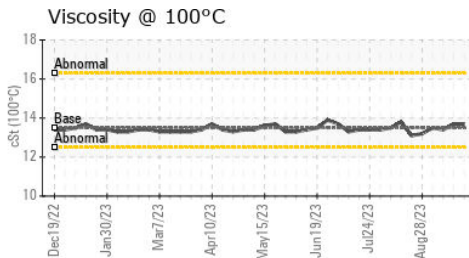
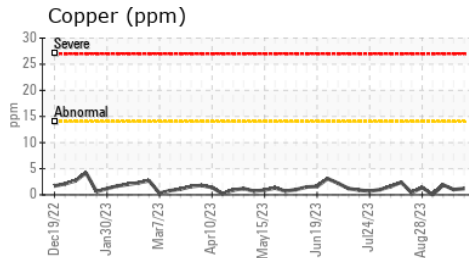
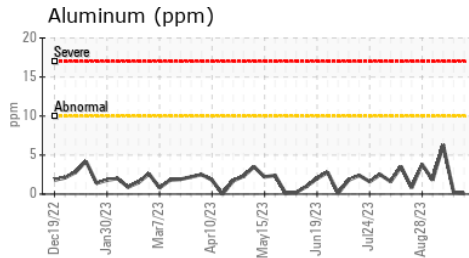
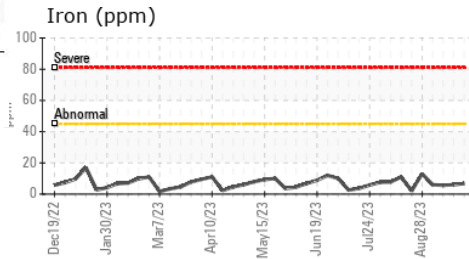
OIL ANALYSIS REPORT



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	13.5	13.7	13.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0836480 **Received** : 27 Sep 2023
Lab Number : 05962996 **Diagnosed** : 28 Sep 2023
Unique Number : 10669547 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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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