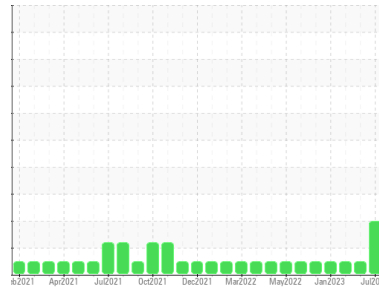


OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
810024
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (36 QTS)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

The iron level is abnormal.

Contamination

Sodium and/or potassium levels are high.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0124215	PCA0101777	PCA0077300
Sample Date	Client Info	12 Jul 2024	09 Jan 2024	27 Jun 2023
Machine Age	hrs	9382	8231	7218
Oil Age	hrs	1151	1013	1156
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	▲ 62	57	40
Chromium	ppm ASTM D5185m >4	2	2	2
Nickel	ppm ASTM D5185m >2	1	2	2
Titanium	ppm ASTM D5185m	<1	<1	<1
Silver	ppm ASTM D5185m >3	<1	0	0
Aluminum	ppm ASTM D5185m >9	6	7	8
Lead	ppm ASTM D5185m >30	7	<1	4
Copper	ppm ASTM D5185m >35	2	<1	1
Tin	ppm ASTM D5185m >4	<1	1	<1
Vanadium	ppm ASTM D5185m	<1	<1	<1
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	10	5	12
Barium	ppm ASTM D5185m 5	1	0	0
Molybdenum	ppm ASTM D5185m 50	75	53	58
Manganese	ppm ASTM D5185m 0	<1	2	2
Magnesium	ppm ASTM D5185m 560	551	542	594
Calcium	ppm ASTM D5185m 1510	1708	1576	1762
Phosphorus	ppm ASTM D5185m 780	707	729	795
Zinc	ppm ASTM D5185m 870	1008	992	1031
Sulfur	ppm ASTM D5185m 2040	2440	2369	3068

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	25	17	22
Sodium	ppm ASTM D5185m	▲ 524	7	8
Potassium	ppm ASTM D5185m >20	13	0	2

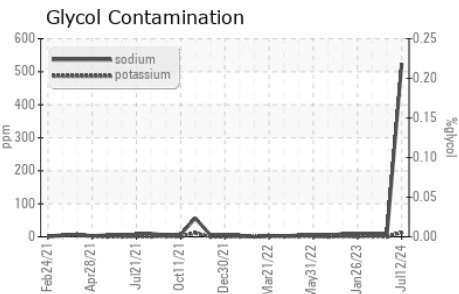
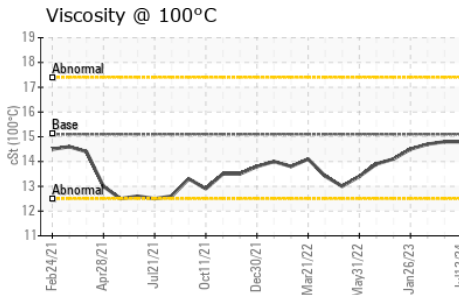
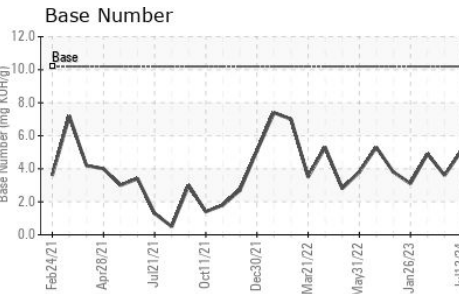
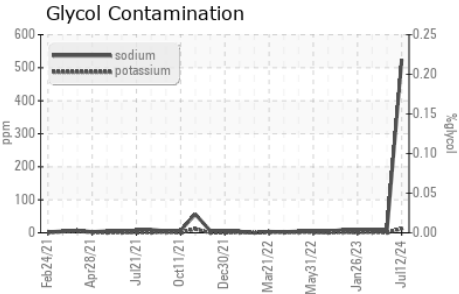
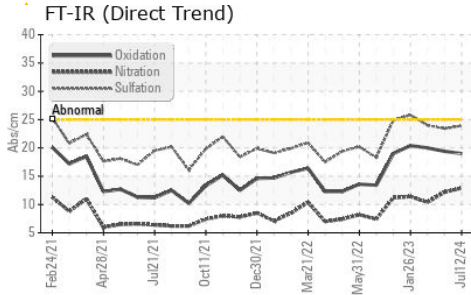
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0	0	0.1
Nitration	Abs/cm *ASTM D7624 >20	12.9	12.2	10.4
Sulfation	Abs/.1mm *ASTM D7415 >30	23.9	23.4	24.0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	19.0	19.4	20.0
Base Number (BN)	mg KOH/g ASTM D2896 10.2	5.1	3.6	4.9

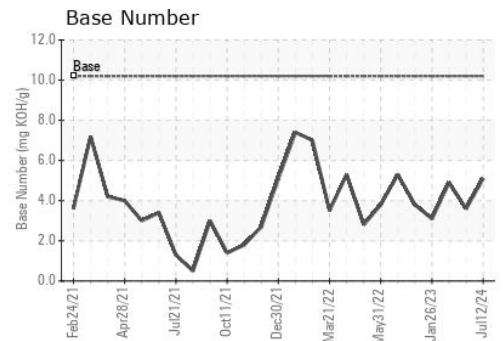
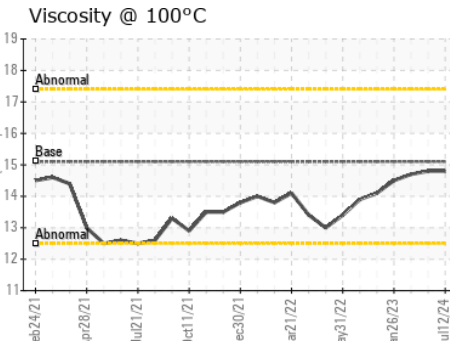
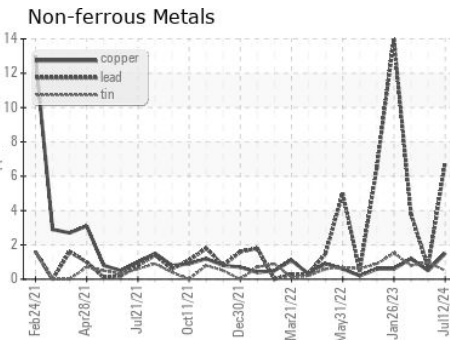
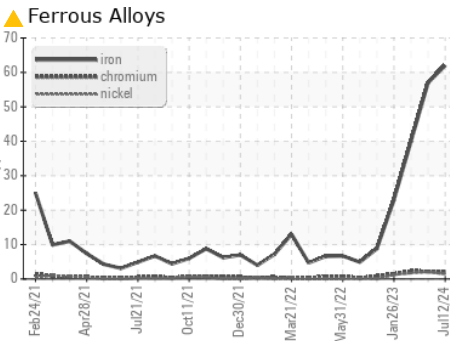
OIL ANALYSIS REPORT



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	15.1	14.8	14.7

GRAPHS



Certificate L2367

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

Sample No. : PCA0124215

Lab Number : 06235562

Unique Number : 11124396

Test Package : FLEET (Additional Tests: Glycol)

Received : 15 Jul 2024

Tested : 17 Jul 2024

Diagnosed : 17 Jul 2024 - Jonathan Hester

GFL Environmental - 002 - Vance-Granville

241 Vanco Mill Rd

Henderson, NC

US 27537

Contact: Cameron King

cameron.king@gflenv.com

T: (252)438-5333

F: (252)431-1635

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)