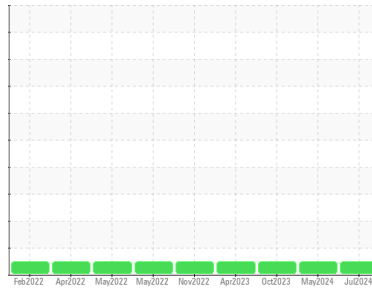


OIL ANALYSIS REPORT

Area
(YA169078) 2
 Machine Id
732004
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (36 QTS)

Sample Rating Trend



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 condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0124237	PCA0124247	PCA0095857
Sample Date	Client Info		12 Jul 2024	14 May 2024	23 Oct 2023
Machine Age	hrs	Client Info	5945	5605	4757
Oil Age	hrs	Client Info	340	848	1158
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	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	14	10	13
Chromium	ppm	ASTM D5185m >4	1	<1	1
Nickel	ppm	ASTM D5185m >2	<1	0	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	<1	0	0
Aluminum	ppm	ASTM D5185m >9	3	1	2
Lead	ppm	ASTM D5185m >30	7	1	2
Copper	ppm	ASTM D5185m >35	2	6	2
Tin	ppm	ASTM D5185m >4	<1	0	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	9	10	11
Barium	ppm	ASTM D5185m 5	<1	0	3
Molybdenum	ppm	ASTM D5185m 50	59	50	59
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 560	585	565	566
Calcium	ppm	ASTM D5185m 1510	1789	1717	1743
Phosphorus	ppm	ASTM D5185m 780	711	738	812
Zinc	ppm	ASTM D5185m 870	1035	1000	1047
Sulfur	ppm	ASTM D5185m 2040	2521	3096	2894

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	5	4	5
Sodium	ppm	ASTM D5185m	4	6	5
Potassium	ppm	ASTM D5185m >20	2	<1	2

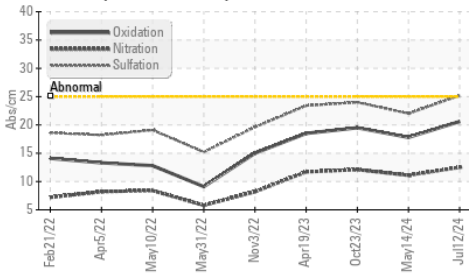
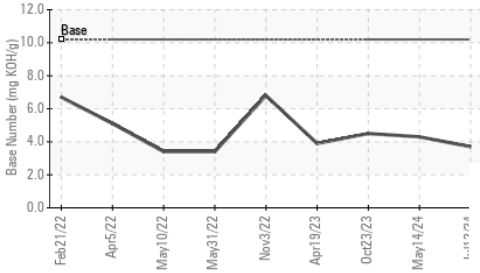
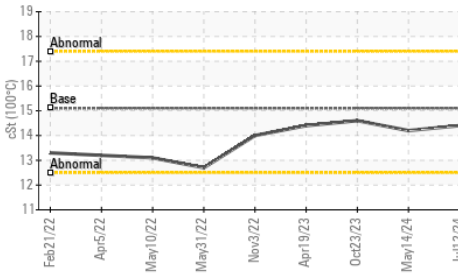
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	12.5	11.1	12.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.2	22.0	24.0

FLUID DEGRADATION

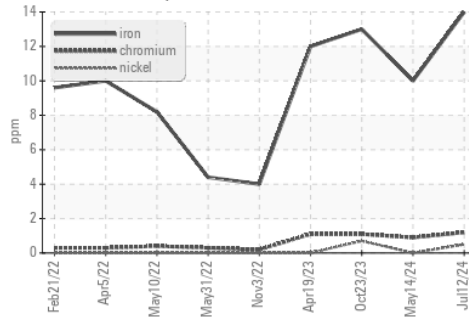
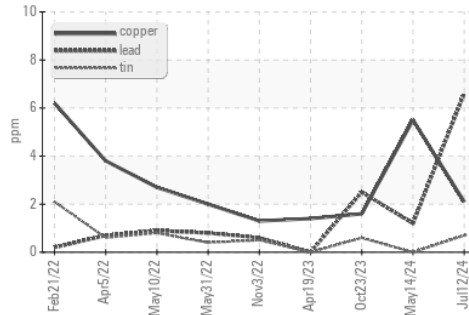
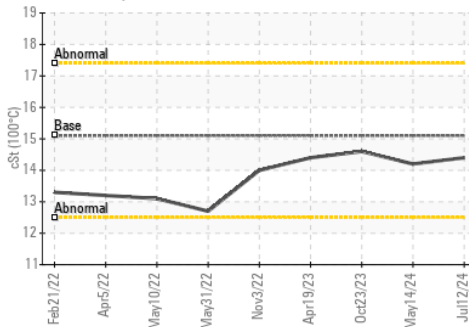
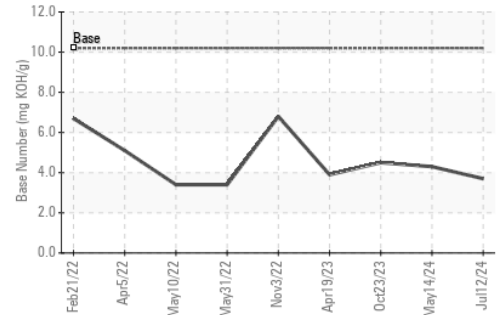
	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.6	17.8	19.5
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	3.7	4.3	4.5

OIL ANALYSIS REPORT

FT-IR (Direct Trend)

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	14.2

GRAPHS
Ferrous Alloys

Non-ferrous Metals

Viscosity @ 100°C

Base Number


Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0124237
Lab Number : 06235558
Unique Number : 11124392
Test Package : FLEET

Received : 15 Jul 2024
Tested : 15 Jul 2024
Diagnosed : 15 Jul 2024 - Wes Davis

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)