



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
3799C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (30 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0082440	GFL0050732	PCA0061378
Sample Date		Client Info		05 Jan 2024	16 Mar 2023	14 Oct 2022
Machine Age	hrs	Client Info		13018	13018	11806
Oil Age	hrs	Client Info		13018	1212	1104
Filter Age	hrs	Client Info		13018	1212	1104
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	▲ 47	13	11
Chromium	ppm	ASTM D5185m	>4	▲ 7	2	2
Nickel	ppm	ASTM D5185m	>2	2	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	3	4	2
Lead	ppm	ASTM D5185m	>30	4	6	<1
Copper	ppm	ASTM D5185m	>35	3	▲ 60	▲ 197
Tin	ppm	ASTM D5185m	>4	2	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

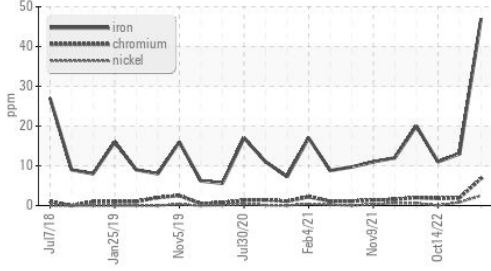
Silicon	ppm	ASTM D5185m	>+100	19	4	4
Potassium	ppm	ASTM D5185m	>20	17	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.3	12.0	11.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	23.6	23.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

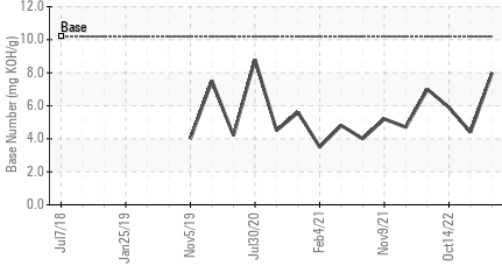
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		7	7	9
Boron	ppm	ASTM D5185m	50	29	8	9
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	62	56	54
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium	ppm	ASTM D5185m	560	637	536	557
Calcium	ppm	ASTM D5185m	1510	1814	1716	1651
Phosphorus	ppm	ASTM D5185m	780	811	700	673
Zinc	ppm	ASTM D5185m	870	1103	982	911
Sulfur	ppm	ASTM D5185m	2040	3016	2136	2507
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	21.0	20.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	8.0	4.4	5.9
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.7	14.9

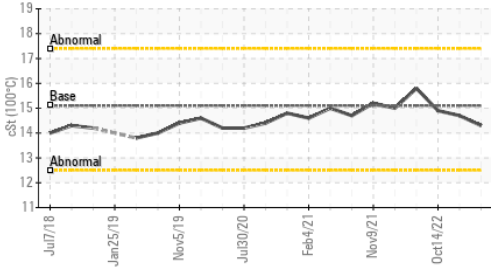
▲ Ferrous Alloys



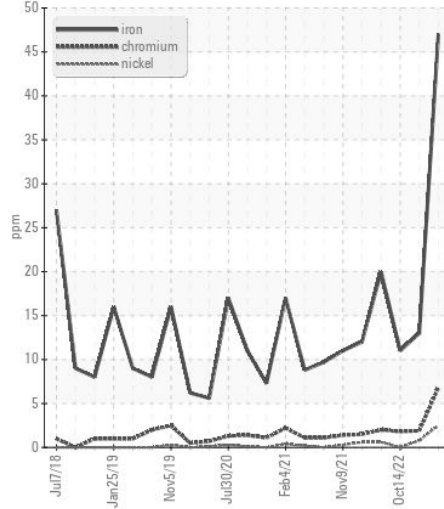
Base Number



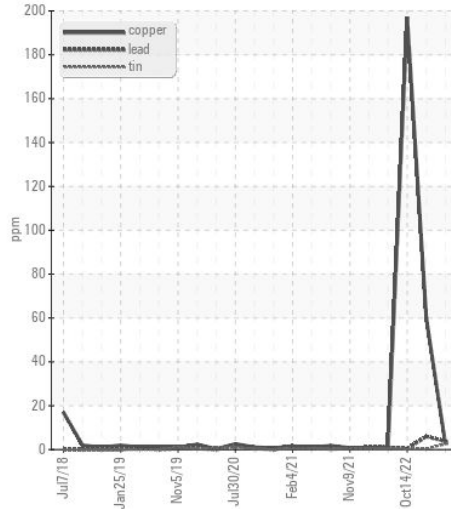
Viscosity @ 100°C



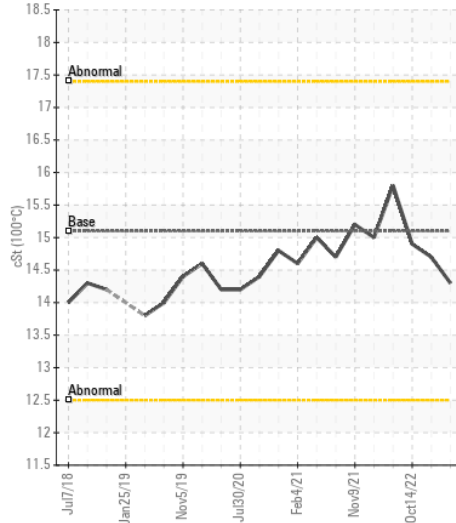
▲ Ferrous Alloys



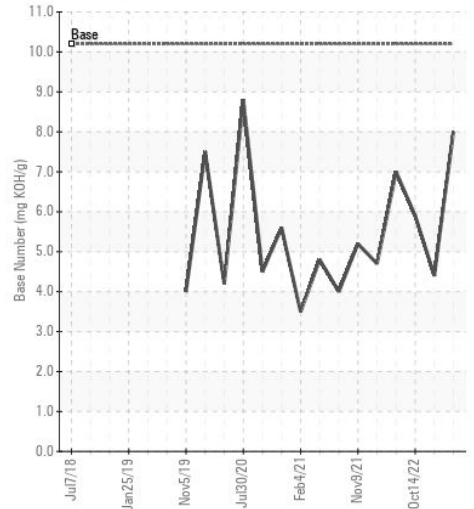
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0082440 **Received** : 09 Jan 2024
Lab Number : 06055194 **Diagnosed** : 10 Jan 2024
Unique Number : 10821143 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 007 - Brunswick
 2809 Galloway Road
 Bolivia, NC
 US 28422
 Contact: DONALD CRAVEN
 dcraven@gflenv.com
 T:
 F: (910)253-4179

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)