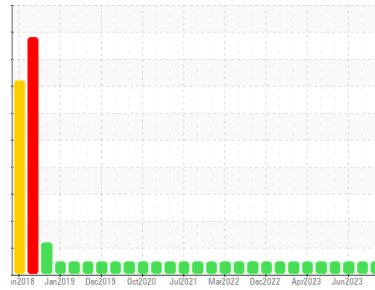




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

2716

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (40 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 condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	GFL0088406	GFL0088395	GFL0088382	
Sample Date	Client Info	23 Aug 2023	31 Jul 2023	30 Jun 2023	
Machine Age	hrs	Client Info	12209	11893	11893
Oil Age	hrs	Client Info	8732	8732	8732
Oil Changed	Client Info	N/A	N/A	N/A	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >100	12	31	25
Chromium	ppm	ASTM D5185m >20	<1	1	1
Nickel	ppm	ASTM D5185m >4	<1	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	3	0
Lead	ppm	ASTM D5185m >40	1	3	4
Copper	ppm	ASTM D5185m >330	<1	<1	1
Tin	ppm	ASTM D5185m >15	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	0	1	0
Barium	ppm	ASTM D5185m 0	2	0	0
Molybdenum	ppm	ASTM D5185m 60	63	68	62
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 1010	950	1077	1041
Calcium	ppm	ASTM D5185m 1070	1131	1212	1157
Phosphorus	ppm	ASTM D5185m 1150	1061	1134	1054
Zinc	ppm	ASTM D5185m 1270	1241	1418	1329
Sulfur	ppm	ASTM D5185m 2060	3180	3521	3410

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	5	5	5
Sodium	ppm	ASTM D5185m	3	5	5
Potassium	ppm	ASTM D5185m >20	4	4	5

INFRA-RED

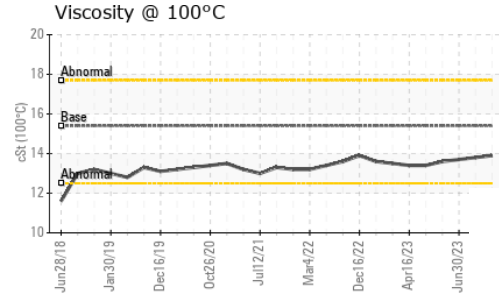
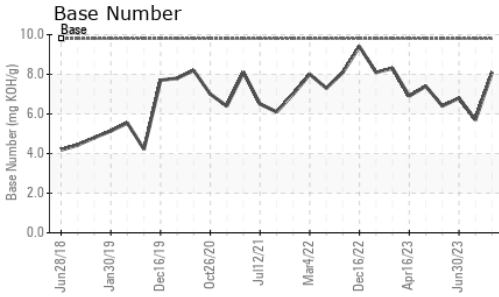
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.2	0.6	0.5
Nitration	Abs/cm	*ASTM D7624 >20	7.4	11.9	11.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.6	24.2	23.6

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.4	21.1	20.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.1	5.7	6.8



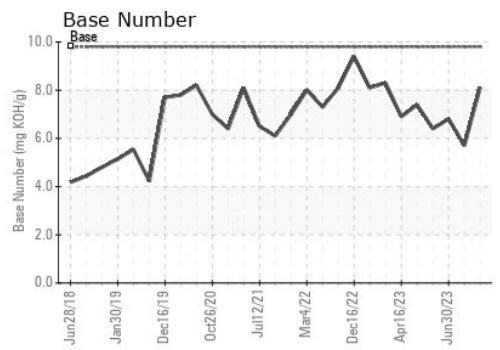
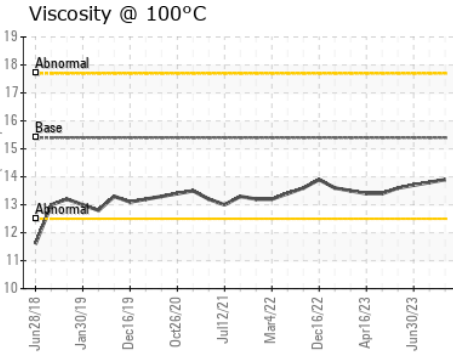
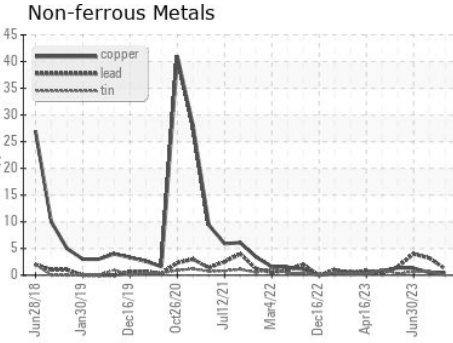
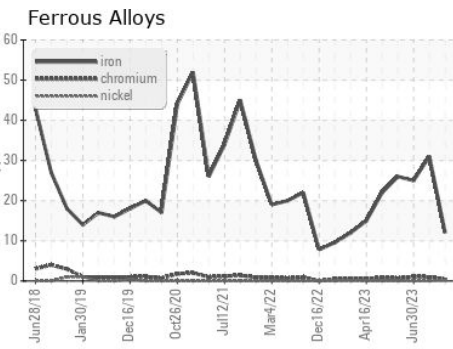
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.8	13.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0088406 **Received** : 28 Aug 2023
Lab Number : **05936611** **Diagnosed** : 29 Aug 2023
Unique Number : 10621882 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 084 - Clarksville
 699 Jack Miller Boulevard
 Clarksville, TN
 US 37042
 Contact: ROBERT THIBAUT
 robert.thibault@gflenv.com
 T: (931)552-7276
 F: (931)572-9674

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)