



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
724027-367
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (600 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0118656	GFL0118635	GFL0100208
Sample Date		Client Info		07 May 2024	15 Apr 2024	12 Feb 2024
Machine Age	hrs	Client Info		9451	141371	139474
Oil Age	hrs	Client Info		200	0	0
Filter Age	hrs	Client Info		200	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	23	41
Chromium	ppm	ASTM D5185m	>20	<1	2	1
Nickel	ppm	ASTM D5185m	>4	0	2	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	3	5	9
Lead	ppm	ASTM D5185m	>40	0	1	1
Copper	ppm	ASTM D5185m	>330	18	27	127
Tin	ppm	ASTM D5185m	>15	<1	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.

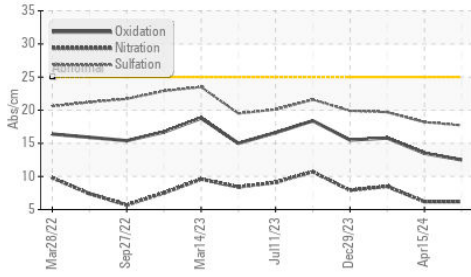
Silicon	ppm	ASTM D5185m	>25	9	13	20
Potassium	ppm	ASTM D5185m	>20	2	5	10
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.2	6.2	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	18.2	19.7
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

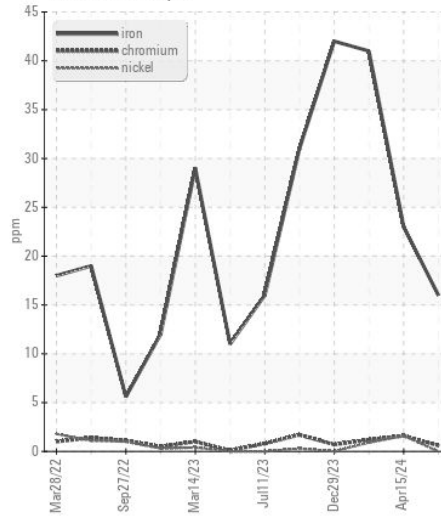
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		38	61	▲ 243
Boron	ppm	ASTM D5185m	0	126	82	7
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	55	78	60
Manganese	ppm	ASTM D5185m	0	1	1	1
Magnesium	ppm	ASTM D5185m	1010	731	1090	924
Calcium	ppm	ASTM D5185m	1070	1807	1842	960
Phosphorus	ppm	ASTM D5185m	1150	1077	1487	927
Zinc	ppm	ASTM D5185m	1270	1247	1630	1226
Sulfur	ppm	ASTM D5185m	2060	3683	4790	2653
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.5	13.5	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.6	9.1	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.8	14.0

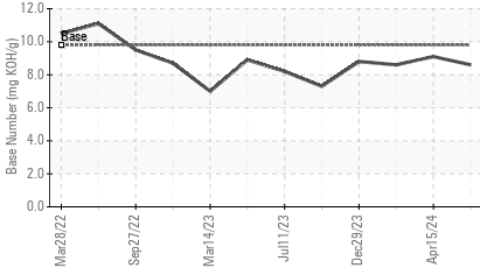
FT-IR (Direct Trend)



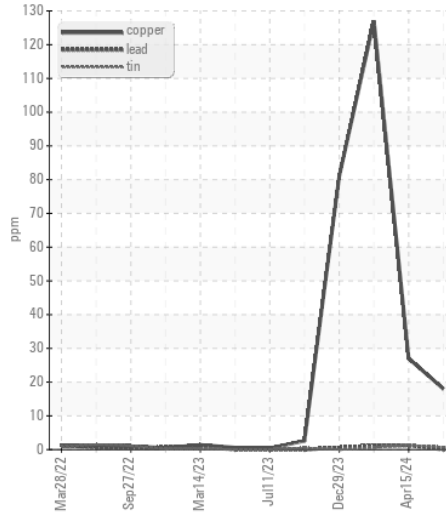
Ferrous Alloys



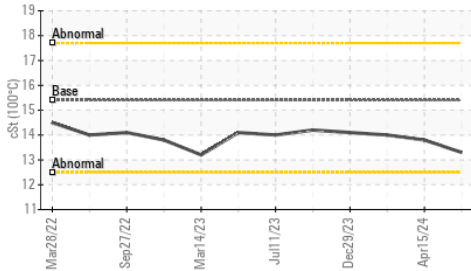
Base Number



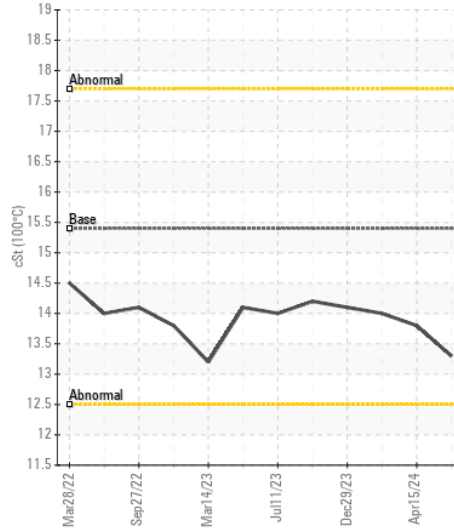
Non-ferrous Metals



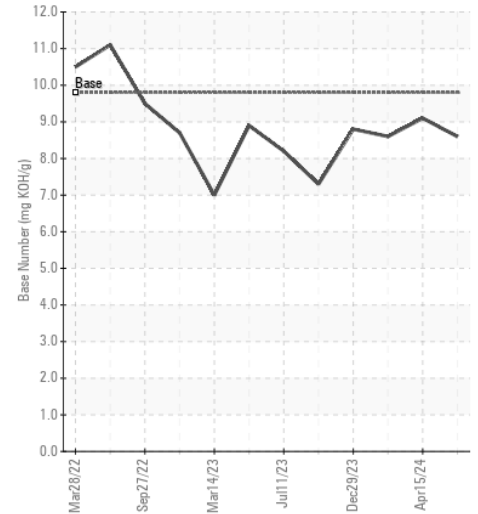
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : GFL0118656

Lab Number : 06176708

Unique Number : 11022761

Test Package : FLEET

Received : 13 May 2024

Tested : 14 May 2024

Diagnosed : 14 May 2024 - Angela Borella

GFL Environmental - 166 - Phenix City

18 Old Brickyard Rd

Phenix City, AL

US 36869

Contact: EDWARD CASHMAN

ecashman@gflenv.com

T:

F:

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)