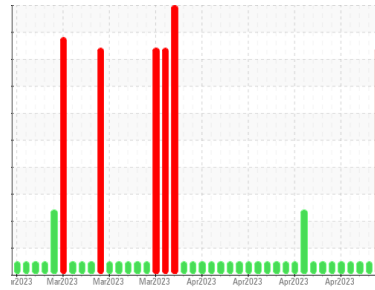




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
WCLSNC
 Machine Id
QC DE NC 08012022
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0817111	WC0817110	WC0807747
Sample Date	Client Info			02 May 2023	01 May 2023	28 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				SEVERE	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		15	15	11
Iron	ppm	ASTM D5185m		11	8	9
Chromium	ppm	ASTM D5185m		2	1	1
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		0	1	0
Lead	ppm	ASTM D5185m		4	1	4
Copper	ppm	ASTM D5185m		<1	0	<1
Tin	ppm	ASTM D5185m		<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		37	36	37
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		92	88	95
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		501	505	496
Calcium	ppm	ASTM D5185m		1488	1542	1544
Phosphorus	ppm	ASTM D5185m		677	659	681
Zinc	ppm	ASTM D5185m		907	929	918
Sulfur	ppm	ASTM D5185m		2545	2486	2697

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		28	26	29
Sodium	ppm	ASTM D5185m		▲ 1460	1493	1454
Potassium	ppm	ASTM D5185m		▲ 8	9	9
Fuel	%	ASTM D3524		0.3	0.3	0.2
Glycol	%	*ASTM D2982		● 0.10	NEG	NEG

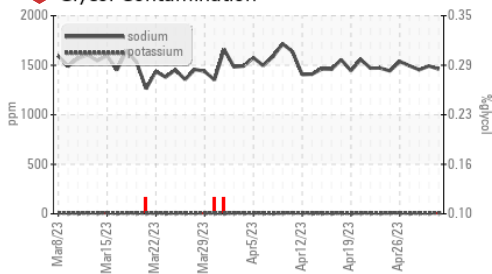
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624		10.9	10.9	10.8
Sulfation	Abs/.1mm	*ASTM D7415		20.4	20.4	20.3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		16.1	16.2	16.0
Acid Number (AN)	mg KOH/g	ASTM D8045		0.964	0.751	0.48
Base Number (BN)	mg KOH/g	ASTM D2896		12.43	11.97	12.32

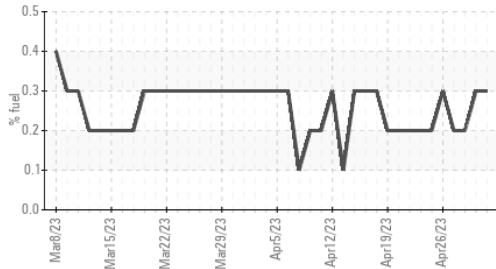


OIL ANALYSIS REPORT

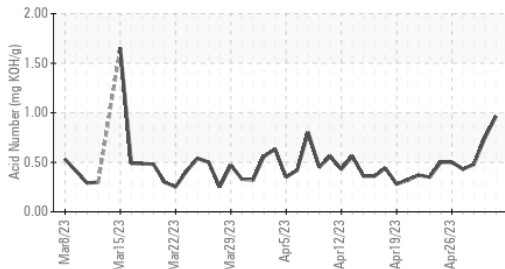
Glycol Contamination



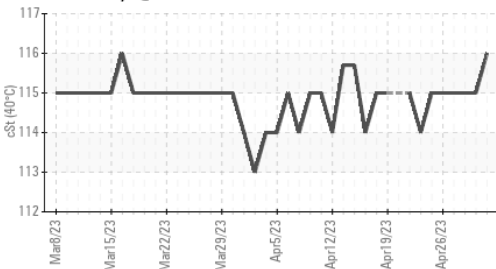
Fuel Dilution



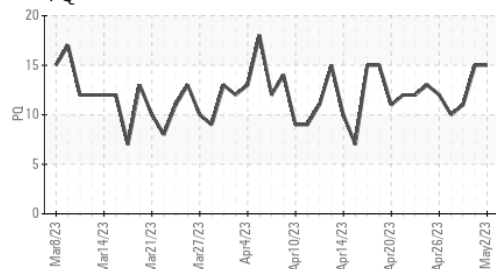
Acid Number



Viscosity @ 40°C



PQ

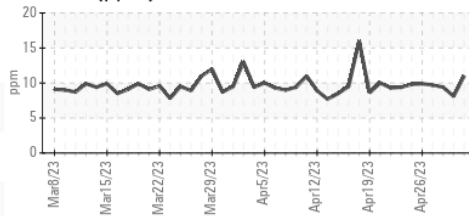


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

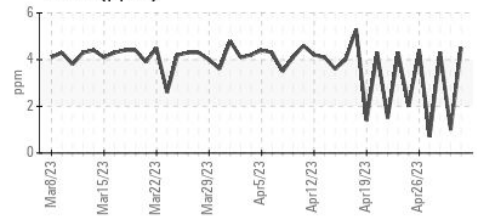
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	116	115	115
Visc @ 100°C	cSt	ASTM D445	14.6	14.7	14.6
Viscosity Index (VI)	Scale	ASTM D2270	128	131	129

GRAPHS

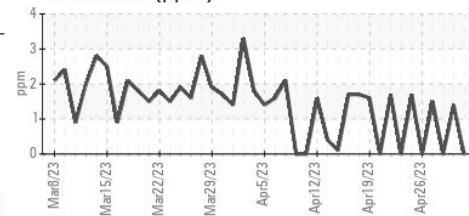
Iron (ppm)



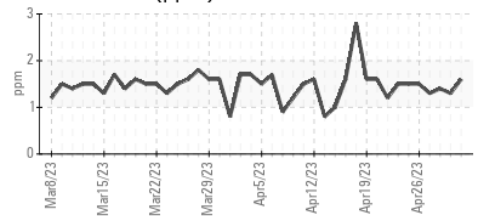
Lead (ppm)



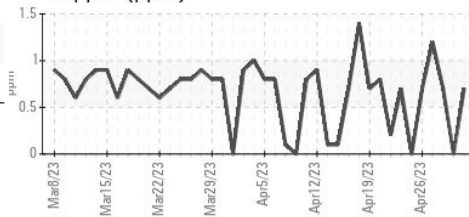
Aluminum (ppm)



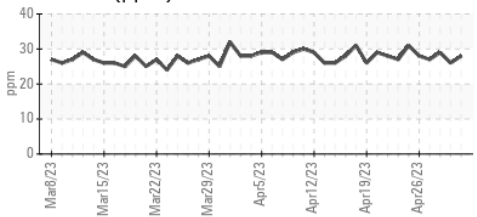
Chromium (ppm)



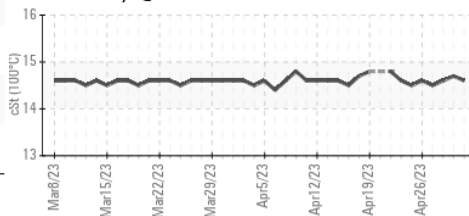
Copper (ppm)



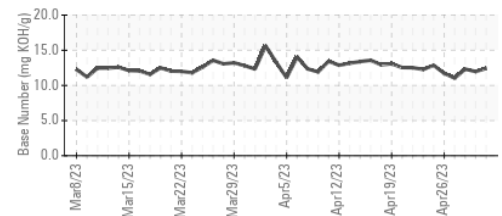
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0817111 Received : 02 May 2023
 Lab Number : 05835458 Diagnosed : 02 Oct 2023
 Unique Number : 10454261 Diagnostician : System

WEARCHECK LUBRICATION SERVICES QA ACCOUNT

501 Madison Ave
 Cary, NC
 US 27513

Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, PQ, VI) Contact: WCLS CARY NC

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)

T: (919)379-4102

F: (919)379-4050