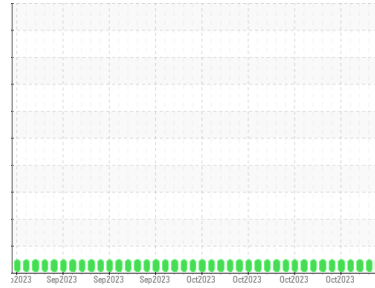




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
WCLSNC
 Machine Id
QC230801DE
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0877757	WC0877756	WC0865947
Sample Date	Client Info			02 Nov 2023	01 Nov 2023	31 Oct 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				NORMAL	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>11	8	7	9
Chromium	ppm	ASTM D5185m	>3	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>5	1	2	2
Lead	ppm	ASTM D5185m	>2	0	0	<1
Copper	ppm	ASTM D5185m	>7	4	4	5
Tin	ppm	ASTM D5185m	>2	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	5	6	6
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	46	46	47
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	515	496	480
Calcium	ppm	ASTM D5185m	1070	1456	1361	1408
Phosphorus	ppm	ASTM D5185m	1150	632	616	702
Zinc	ppm	ASTM D5185m	1270	927	858	825
Sulfur	ppm	ASTM D5185m	2060	2381	2047	2078

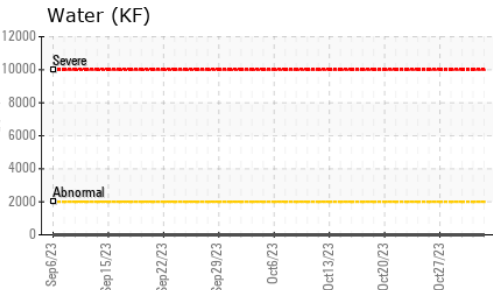
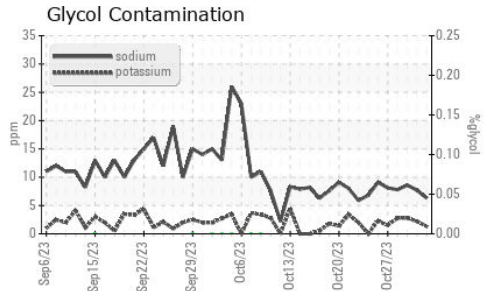
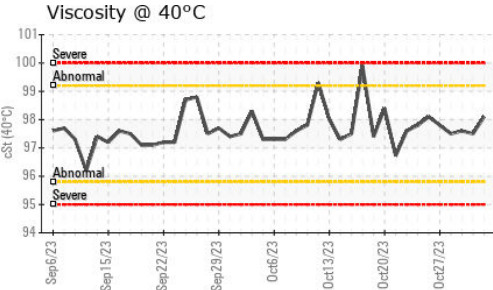
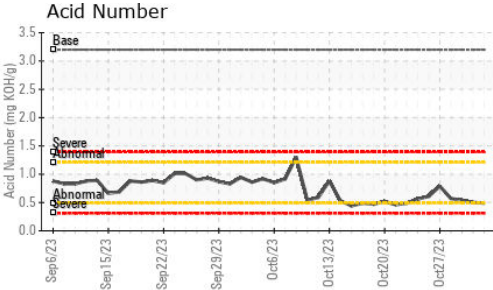
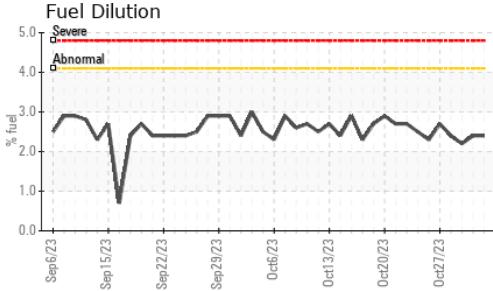
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>14	4	4	4
Sodium	ppm	ASTM D5185m	>13	6	8	9
Potassium	ppm	ASTM D5185m	>20	1	2	3
Fuel	%	ASTM D3524	>4.1	2.4	2.4	2.2
Glycol	%	*ASTM D2982		NEG	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>0.3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>10.8	10.4	10.4	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>20.8	20.2	20.2	20.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>17.9	17.4	17.4	17.4
Acid Number (AN)	mg KOH/g	ASTM D8045	3.2	0.49	0.50	0.54
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.62	7.82	8.48



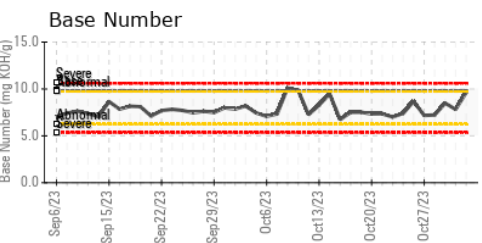
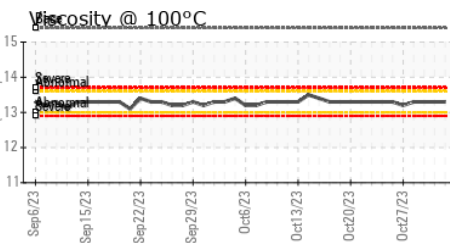
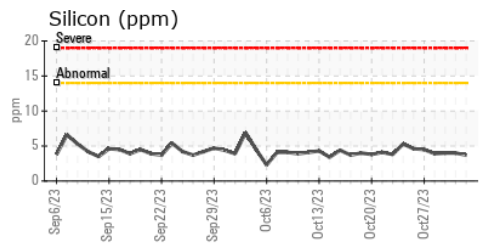
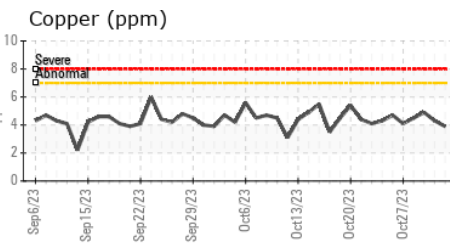
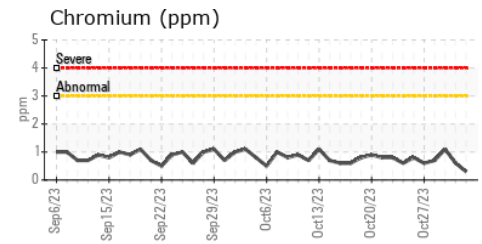
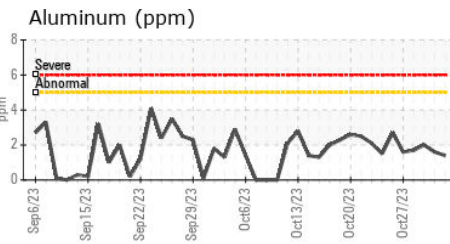
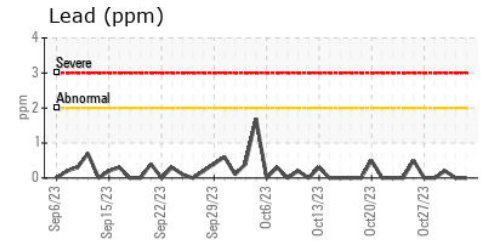
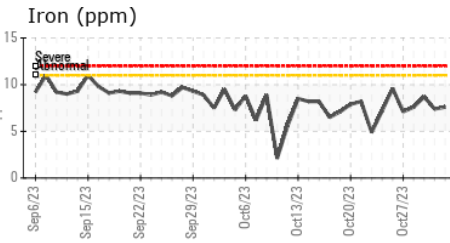
OIL ANALYSIS REPORT



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 @ 40°C	cSt	ASTM D445	113.9	98.1	97.5
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.3
Viscosity Index (VI)	Scale	ASTM D2270	142	134	135

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0877757 **Received** : 02 Nov 2023
Lab Number : 05996851 **Diagnosed** : 08 Nov 2023
Unique Number : 10725211 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, KV40, PercentFuel, 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)

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