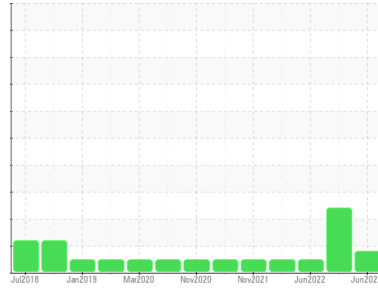


# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**497799**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 10W30 (18 QTS)**

## DIAGNOSIS

### 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.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected 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	history 1	history 2
Sample Number	Client Info	<b>PCA0097784</b>	PCA0090018	PCA0068609
Sample Date	Client Info	<b>12 Jun 2023</b>	07 Feb 2023	14 Jun 2022
Machine Age	mls	Client Info	<b>291344</b>	0
Oil Age	mls	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>MARGINAL</b>	SEVERE	NORMAL

## CONTAMINATION

method	limit/base	current	history 1	history 2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m >100	<b>84</b>	77	44
Chromium	ppm	ASTM D5185m >20	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>8</b>	9	7
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	2	1
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m 2	<b>17</b>	9	22
Barium	ppm	ASTM D5185m 0	<b>12</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>92</b>	65	98
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 950	<b>1089</b>	861	1046
Calcium	ppm	ASTM D5185m 1050	<b>1453</b>	1141	1386
Phosphorus	ppm	ASTM D5185m 995	<b>1203</b>	958	1092
Zinc	ppm	ASTM D5185m 1180	<b>1504</b>	1212	1357
Sulfur	ppm	ASTM D5185m 2600	<b>3445</b>	2553	3585

## CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m >25	<b>5</b>	7	5
Sodium	ppm	ASTM D5185m	<b>4</b>	4	2
Potassium	ppm	ASTM D5185m >20	<b>1</b>	3	11
Fuel	%	ASTM D3524 >5	<b>▲ 2.2</b>	24.0	<1.0

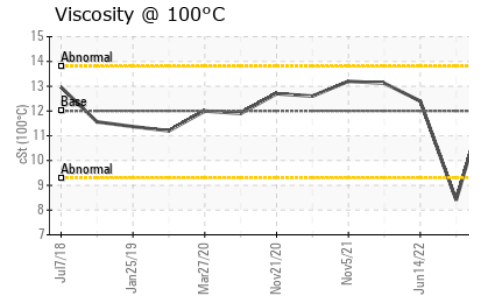
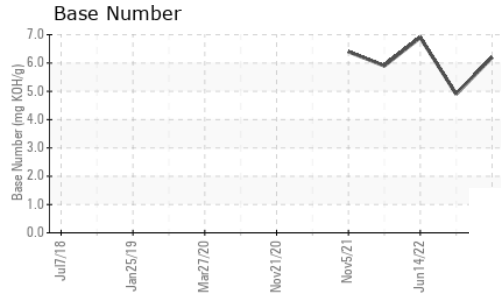
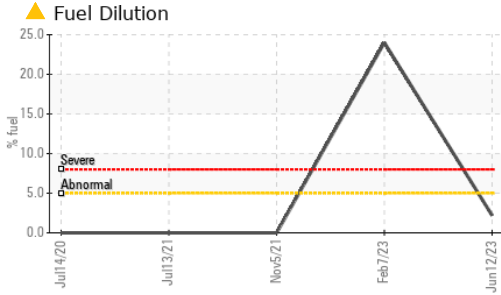
## INFRA-RED

method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844 >3	<b>2.1</b>	1.4	0.9
Nitration	Abs/cm	*ASTM D7624 >20	<b>19.6</b>	16.1	16.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>36.9</b>	29.8	28.8

## FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>37.6</b>	30.8	28.5
Base Number (BN)	mg KOH/g	ASTM D2896	<b>6.2</b>	4.9	6.9

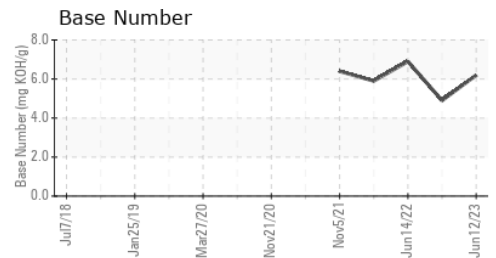
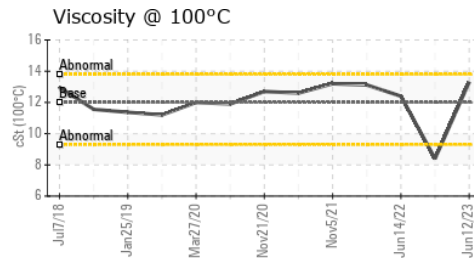
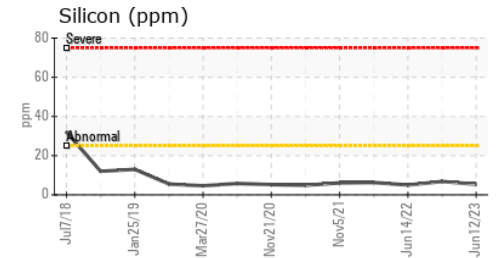
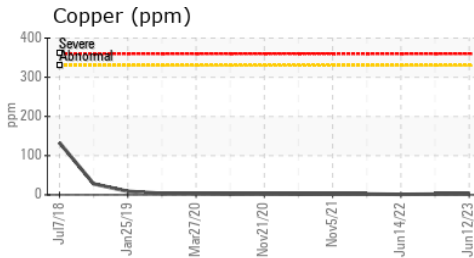
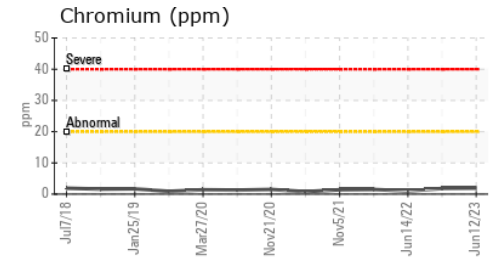
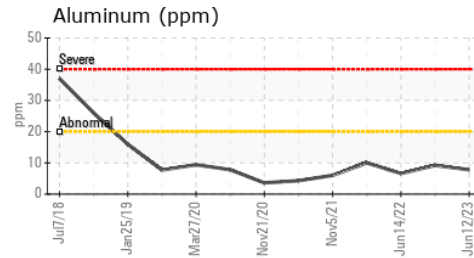
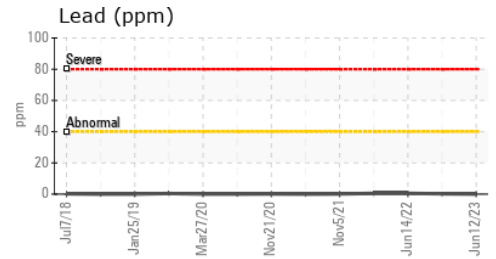
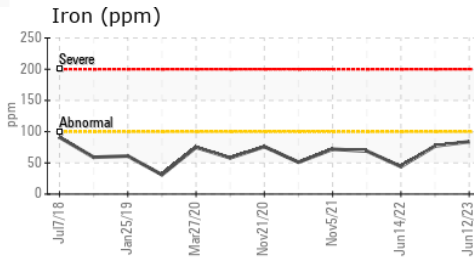
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	12.00	<b>13.3</b>	▲ 8.4	12.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0097784 **Received** : 03 Jul 2023  
**Lab Number** : 05888644 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10539127 **Diagnostician** : Don Baldrige

63 REPAUPO STATION ROAD  
 LOGAN TOWNSHIP, NJ  
 US 08085

**Test Package** : MOB 1 ( Additional Tests: PercentFuel, TBN )

Contact: ED DAVIS  
 edavis@millertransgroup.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

T: (856)214-3521

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

F: (856)214-3663

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)