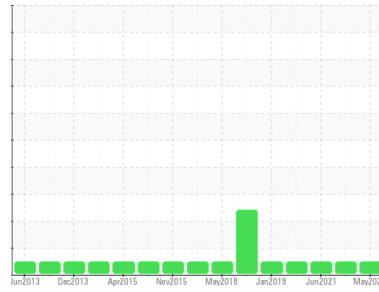


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**2013 MCI 327U**  
 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 condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PCA0125065</b>	PCA0111551	PCA0047482
Sample Date	Client Info			<b>14 May 2024</b>	02 Mar 2024	17 Jun 2021
Machine Age	mls	Client Info		<b>389549</b>	380115	352761
Oil Age	mls	Client Info		<b>9434</b>	9545	12561
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG
Glycol	WC Method			<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<b>27</b>	36	44
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	3	5
Lead	ppm	ASTM D5185m	>40	<b>4</b>	3	4
Copper	ppm	ASTM D5185m	>330	<b>1</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>6</b>	<1	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	62	64
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>888</b>	972	1027
Calcium	ppm	ASTM D5185m	1070	<b>1094</b>	1076	1201
Phosphorus	ppm	ASTM D5185m	1150	<b>980</b>	1028	1118
Zinc	ppm	ASTM D5185m	1270	<b>1189</b>	1223	1313
Sulfur	ppm	ASTM D5185m	2060	<b>3069</b>	3070	2818

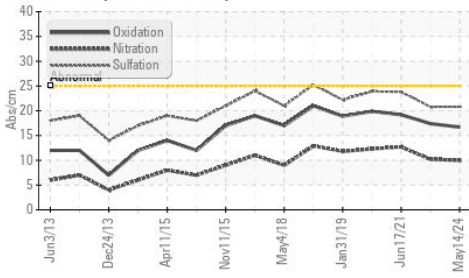
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>10</b>	19	10
Sodium	ppm	ASTM D5185m		<b>3</b>	2	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	<b>0.7</b>	0.6	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	10.2	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.8</b>	20.8	23.8

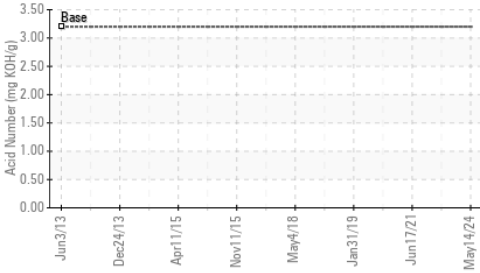
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.7</b>	17.4	19.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.88</b>	10.23	8.31

# OIL ANALYSIS REPORT

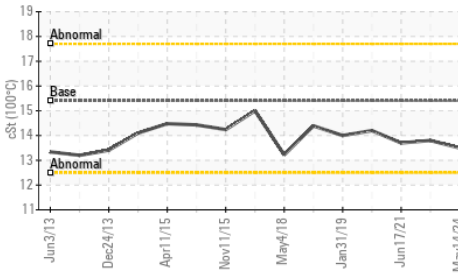
FT-IR (Direct Trend)



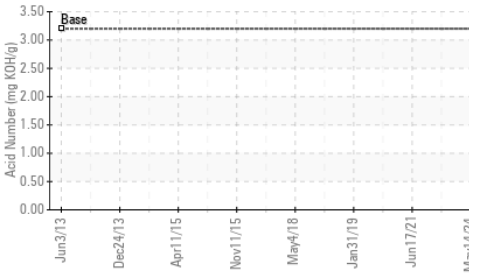
Acid Number



Viscosity @ 100°C



Acid Number

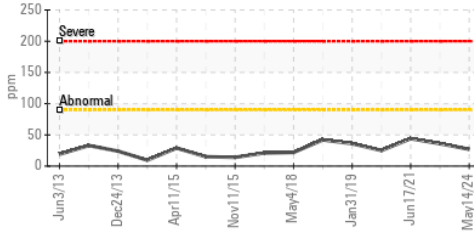


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

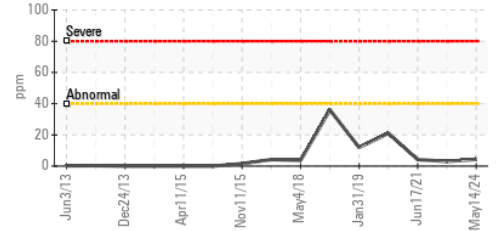
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	13.8

## GRAPHS

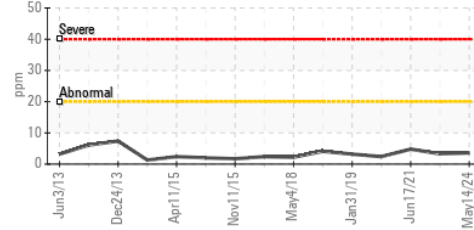
Iron (ppm)



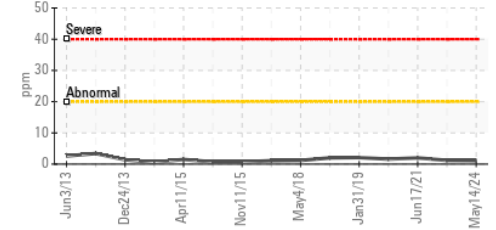
Lead (ppm)



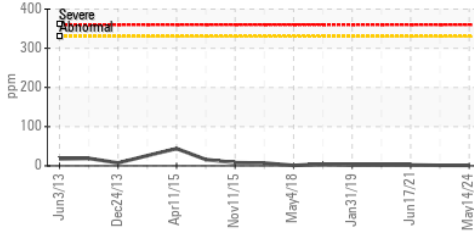
Aluminum (ppm)



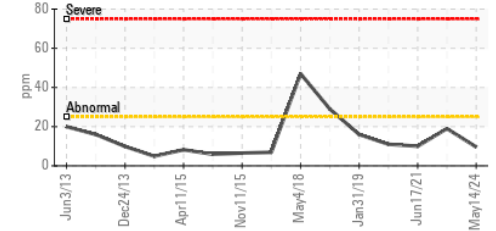
Chromium (ppm)



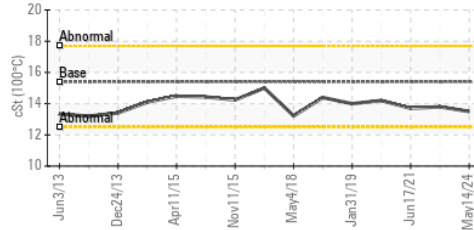
Copper (ppm)



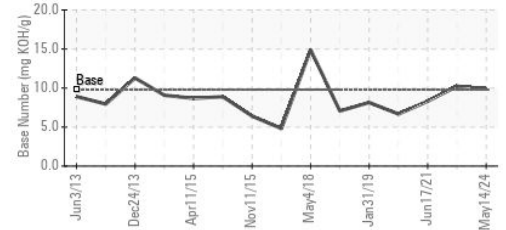
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

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

**Sample No.** : PCA0125065

**Lab Number** : 06222499

**Unique Number** : 11100696

**Test Package** : MOB 2 ( Additional Tests: TAN Man )

**Received** : 27 Jun 2024

**Tested** : 28 Jun 2024

**Diagnosed** : 28 Jun 2024 - Angela Borella

**BROWN BUS COMPANY - UPSTATE TRANSIT**

50 VENNERS ROAD

AMSTERDAM, NY

US 12010

Contact: CONNIE WILBUR

cwilbur@browncoach.com

T: (518)843-4700

F: (518)843-3600

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)