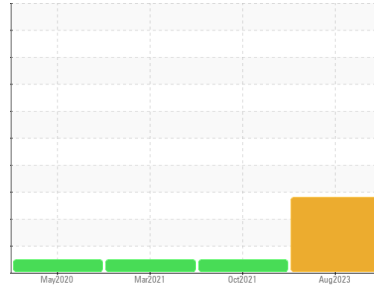


Machine Id  
**PETERBILT TRUCK 19**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	<b>PCA0053913</b>	PCA0053880	PCA0030449	
Sample Date	Client Info	<b>29 Aug 2023</b>	21 Oct 2021	19 Mar 2021	
Machine Age	mls	Client Info	<b>250708</b>	499481	468047
Oil Age	mls	Client Info	<b>20000</b>	20000	20000
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed	
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >110	<b>32</b>	18	23
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>79</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >25	<b>12</b>	6	5
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >85	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</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>▲ 100</b>	6	11
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>▲ 16</b>	57	53
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>▲ 414</b>	898	760
Calcium	ppm	ASTM D5185m 1070	<b>▲ 1672</b>	1258	1276
Phosphorus	ppm	ASTM D5185m 1150	<b>946</b>	1043	960
Zinc	ppm	ASTM D5185m 1270	<b>1141</b>	1143	1108
Sulfur	ppm	ASTM D5185m 2060	<b>3929</b>	2614	2645

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >30	<b>7</b>	8	6
Sodium	ppm	ASTM D5185m	<b>2</b>	0	2
Potassium	ppm	ASTM D5185m >20	<b>8</b>	1	3
Fuel	%	ASTM D3524 >5	<b>▲ 3.9</b>	<1.0	<1.0

## INFRA-RED

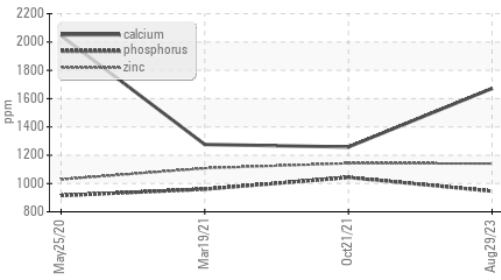
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.5</b>	11	12
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.2</b>	23.4	25.4

## FLUID DEGRADATION

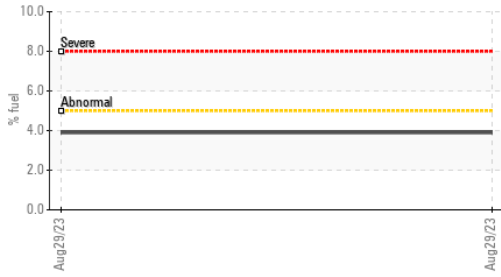
method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.5</b>	21.5	23.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.37</b>	8.83	6.06

# OIL ANALYSIS REPORT

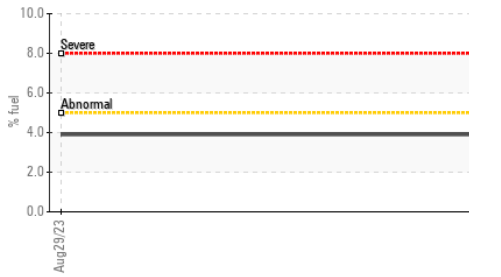
## ▲ Additives



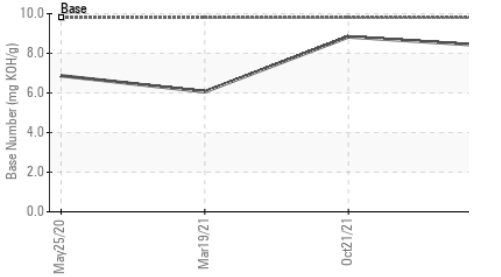
## ▲ Fuel Dilution



## ▲ Fuel Dilution



## Base Number

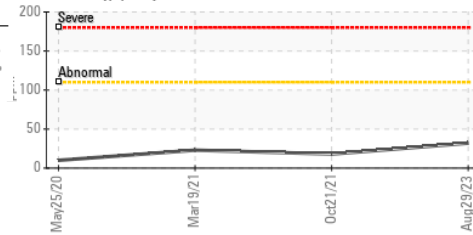


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

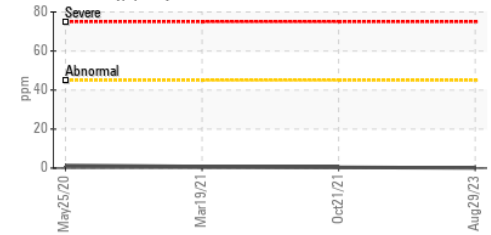
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.2	13.2

## GRAPHS

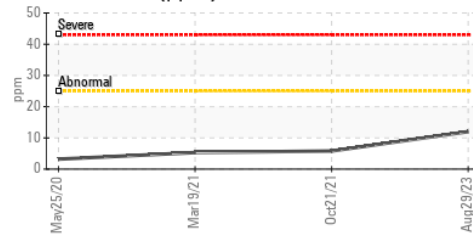
### Iron (ppm)



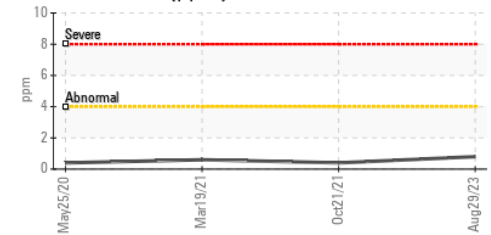
### Lead (ppm)



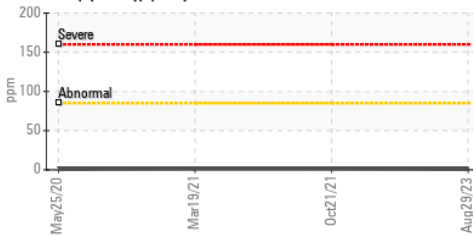
### Aluminum (ppm)



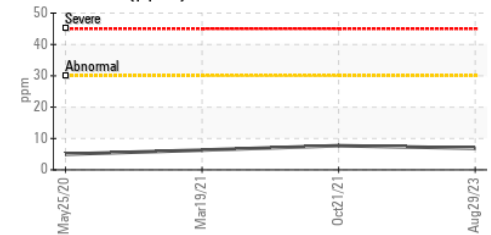
### Chromium (ppm)



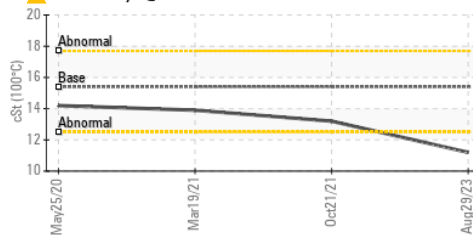
### Copper (ppm)



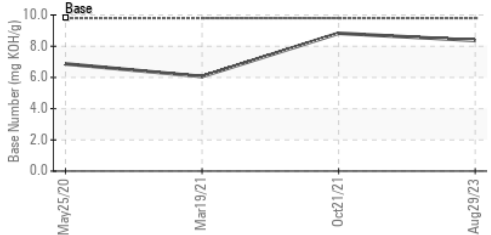
### Silicon (ppm)



## ▲ Viscosity @ 100°C



## Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0053913 **Received** : 18 Sep 2023  
**Lab Number** : 05954199 **Diagnosed** : 20 Sep 2023  
**Unique Number** : 10655412 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**B & B HARVESTING**  
 2842 LADD RD  
 MODESTO, CA  
 US 95356

Contact: Service Manager  
 drcalvalley@gmail.com

T: (209)545-8300

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)

F: