

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend





#### Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### 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.

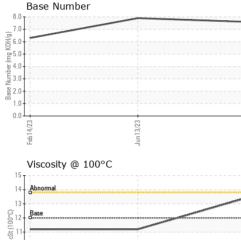
AL)		Feb	Feb.2023 Jun2023 Oct2023			
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110464	PCA0098068	PCA0092393
Sample Date		Client Info		30 Oct 2023	13 Jun 2023	14 Feb 2023
Machine Age	mls	Client Info		312254	301602	291044
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINA	ΓΙΟΝ	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR META	LS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	12	20	29
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	4	6	19
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	2	4	<1
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	18	10	5
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	50	51	69	72
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	586	904	848
Calcium	ppm	ASTM D5185m	1050			1132
Phosphorus			1030	1442	1153	1132
i nospitorus	ppm	ASTM D5185m	995	1442 1007	1153 994	831
•	ppm ppm	ASTM D5185m				
Zinc		ASTM D5185m	995	1007	994	831
Zinc	ppm ppm	ASTM D5185m ASTM D5185m	995 1180	1007 1228	994 1216	831 1107
Zinc Sulfur CONTAMINAI	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base	1007 1228 3013	994 1216 3473	831 1107 2891
Zinc Sulfur CONTAMINAI Silicon	ppm ppm NTS	ASTM D5185m ASTM D5185m ASTM D5185m method	995 1180 2600 limit/base	1007 1228 3013 current	994 1216 3473 history1	831 1107 2891 history2
Zinc Sulfur CONTAMINAI Silicon Sodium	ppm ppm NTS ppm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	995 1180 2600 limit/base >25	1007 1228 3013 current 5	994 1216 3473 history1 8	831 1107 2891 history2 7
Zinc Sulfur CONTAMINAI Silicon Sodium	ppm ppm NTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >25	1007 1228 3013 current 5 0	994 1216 3473 history1 8 1	831 1107 2891 history2 7 <1
Zinc Sulfur CONTAMINAI Silicon Sodium Potassium INFRA-RED	ppm ppm NTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >25 >20 limit/base	1007 1228 3013 current 5 0 8	994 1216 3473 history1 8 1 11	831 1107 2891 history2 7 <1 39
Zinc Sulfur CONTAMINAI Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm NTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >25 >20 limit/base >3	1007 1228 3013 current 5 0 8 current	994 1216 3473 history1 8 1 11 history1	831 1107 2891 history2 7 <1 39 history2
Zinc Sulfur CONTAMINAI Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm NTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844	995 1180 2600 limit/base >25 >20 limit/base >3 >20	1007 1228 3013 current 5 0 8 current 0.4	994 1216 3473 history1 8 1 1 11 history1 0.4	831 1107 2891 history2 7 <1 39 history2 0.7
Zinc Sulfur CONTAMINAI Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm NTS ppm ppm ppm ppm pm valaeta	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824	995 1180 2600 limit/base >25 >20 limit/base >3 >20	1007 1228 3013 current 5 0 8 current 0.4 10.1	994 1216 3473 history1 8 1 11 history1 0.4 10.0	831 1107 2891 history2 7 <1 39 history2 0.7 12.0
Zinc Sulfur CONTAMINAI Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm NTS ppm ppm ppm ppm pm valaeta	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7824 *ASTM D7415	995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3 >20 >30 <b>limit/base</b>	1007 1228 3013 current 5 0 8 current 0.4 10.1 21.1	994 1216 3473 history1 8 1 1 11 history1 0.4 10.0 20.3	831 1107 2891 history2 7 <1 39 history2 0.7 12.0 22.3



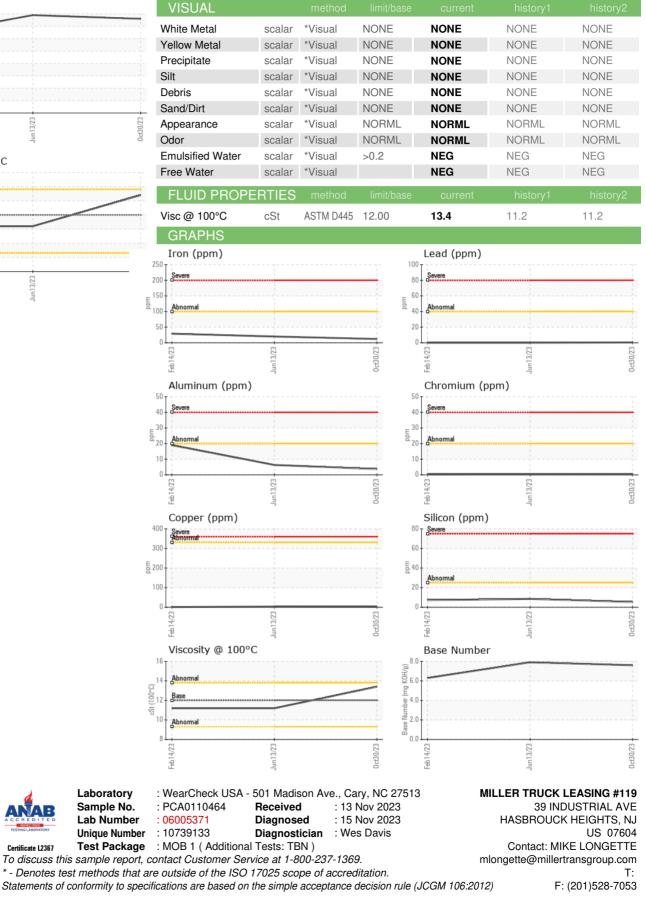
Abnorma

Feb 1

# **OIL ANALYSIS REPORT**



Jun13/23



Certificate L2367

Contact/Location: MIKE LONGETTE - MILRUT