

# **OIL ANALYSIS REPORT**

## Sample Rating Trend





Component Diesel Engine

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

# DIAGNOSIS

#### Recommendation

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

# Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

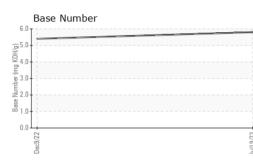
## Fluid Condition

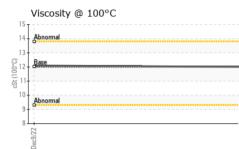
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

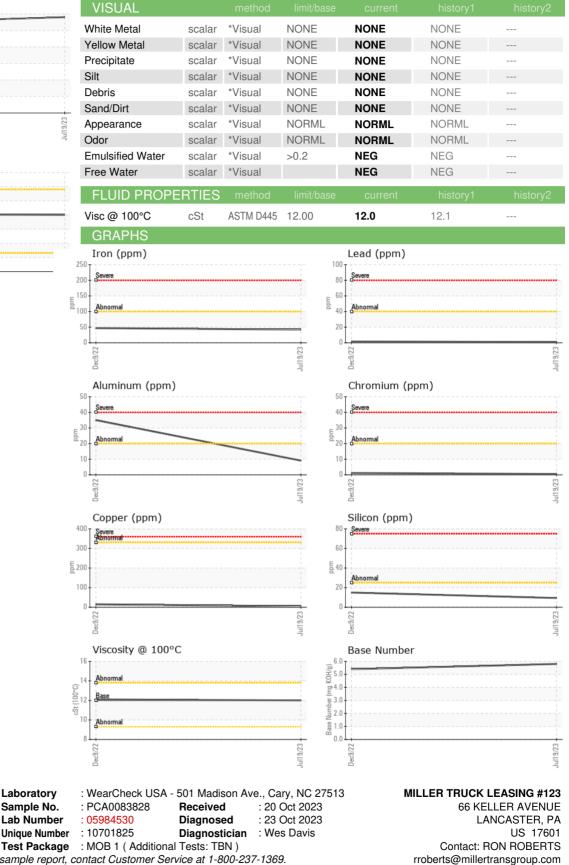
IS)		L	Dec2022	Jul2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0083828	PCA0071690	
Sample Date		Client Info		19 Jul 2023	09 Dec 2022	
Machine Age	mls	Client Info		53180	22530	
Oil Age	mls	Client Info		30650	22530	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	0.5	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	42	47	
Chromium	ppm	ASTM D5185m	>20	<1	1	
Nickel	ppm	ASTM D5185m	>4	<1	<1	
Titanium	ppm	ASTM D5185m	- 1	12	<1	
Silver	ppm	ASTM D5185m	>3	<1	<1	
Aluminum	ppm	ASTM D5185m	>20	9	35	
Lead	ppm	ASTM D5185m	>40	ء <1	2	
Copper	ppm	ASTM D5185m	>330	5	15	
Tin	ppm	ASTM D5185m	>15	1	2	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	7	22	
Barium	ppm	ASTM D5185m	0	<1	0	
Molybdenum				51		
worybuenum	ppm	ASTM D5185m	50	51	9	
-	ppm ppm	ASTM D5185m ASTM D5185m	50 0	1	9	
Manganese				-		
Manganese Magnesium	ppm	ASTM D5185m	0	1	3	
Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	0 950	1 851	3 797	
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050	1 851 1231	3 797 1525	
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	1 851 1231 984	3 797 1525 803	
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	1 851 1231 984 1239	3 797 1525 803 961	  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600	1 851 1231 984 1239 3016	3 797 1525 803 961 3560	   
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	0 950 1050 995 1180 2600 limit/base	1 851 1231 984 1239 3016 current	3 797 1525 803 961 3560 history1	    history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 950 1050 995 1180 2600 limit/base	1 851 1231 984 1239 3016 current 9	3 797 1525 803 961 3560 history1 15	    history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25	1 851 1231 984 1239 3016 current 9 4	3 797 1525 803 961 3560 history1 15 5	    history2 
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20	1 851 1231 984 1239 3016 current 9 4 24	3 797 1525 803 961 3560 history1 15 5 100	    history2  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	1 851 1231 984 1239 3016 current 9 4 24 24 current	3 797 1525 803 961 3560 history1 15 5 100 history1	   history2   history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	1 851 1231 984 1239 3016 current 9 4 24 24 current 0.4	3 797 1525 803 961 3560 history1 15 5 100 history1 0.3	    history2  history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	1 851 1231 984 1239 3016 <u>current</u> 9 4 24 24 <u>current</u> 0.4 11.2	3 797 1525 803 961 3560 history1 15 5 100 history1 0.3 11.0	    history2  history2  history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20 >30	1 851 1231 984 1239 3016 <u>current</u> 9 4 24 24 <u>current</u> 0.4 11.2 23.0	3 797 1525 803 961 3560 history1 15 5 100 history1 0.3 11.0 23.9	    history2  history2  history2



# **OIL ANALYSIS REPORT**







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)

Certificate L2367

Laboratory

Sample No.

Lab Number

Unique Number

T: (717)945-6205

F: (717)945-5818