

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



### Machine Id 130119

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.

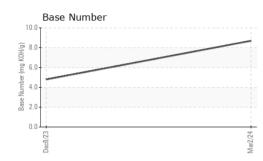
#### Fluid Condition

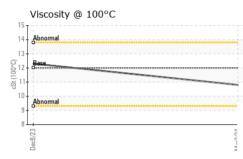
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

TS)			Dec2023	Mar2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0116933	PCA0105810	
Sample Date		Client Info		02 Mar 2024	08 Dec 2023	
Machine Age	mls	Client Info		22359	12367	
Oil Age	mls	Client Info		10000	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	28	53	
Chromium	ppm	ASTM D5185m	>20	<1	1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	<1	0	
Aluminum	ppm	ASTM D5185m	>20	5	9	
_ead	ppm	ASTM D5185m	>40	1	0	
Copper	ppm	ASTM D5185m	>330	19	0	
Гin	ppm	ASTM D5185m	>15	2	0	
/anadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	17	0	
		ASTM D5185m	0	2	4	
Barium	ppm	ASTIVI DJ TOJITI		-		
	ppm ppm	ASTM D5185m	50	57	70	
Molybdenum			50 0			
Molybdenum Manganese	ppm	ASTM D5185m		57	70	
Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0	57 <1	70 0	
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 950	57 <1 813	70 0 962	
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050	57 <1 813 1172	70 0 962 1308	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	57 <1 813 1172 1014	70 0 962 1308 1149	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	57 <1 813 1172 1014 1208	70 0 962 1308 1149 1350	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600	57 <1 813 1172 1014 1208 3296	70 0 962 1308 1149 1350 3500	  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base	57 <1 813 1172 1014 1208 3296 current	70 0 962 1308 1149 1350 3500 history1	   history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base	57 <1 813 1172 1014 1208 3296 current 11	70 0 962 1308 1149 1350 3500 history1 <1	   history2 
Molybdenum 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 ASTM D5185m <b>method</b> ASTM D5185m	0 950 1050 995 1180 2600 limit/base >25	57 <1 813 1172 1014 1208 3296 current 11 0	70 0 962 1308 1149 1350 3500 history1 <1 0	   history2 
Molybdenum 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 ASTM D5185m	0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20	57 <1 813 1172 1014 1208 3296 current 11 0 3	70 0 962 1308 1149 1350 3500 history1 <1 0 6	   history2  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20	57 <1 813 1172 1014 1208 3296 current 11 0 3 Current	70 0 962 1308 1149 1350 3500 history1 <1 0 6 history1	   history2   history2
Molybdenum 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 D5185m	0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20 <b>limit/base</b> >3	57 <1 813 1172 1014 1208 3296 current 11 0 3 current 0.4	70 0 962 1308 1149 1350 3500 history1 <1 0 6 history1 1.1	   history2  history2 
Molybdenum 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 D5185m	0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	57 <1 813 1172 1014 1208 3296 current 11 0 3 current 0.4 7.3	70 0 962 1308 1149 1350 3500 history1 <1 0 6 history1 1.1 1.1 14.6	   history2   history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <b>imit/base</b> >25 >20 <b>imit/base</b> >3 >20 >30	57 <1 813 1172 1014 1208 3296 current 11 0 3 current 0.4 7.3 18.9	70 0 962 1308 1149 1350 3500 history1 <1 0 6 <u>history1</u> 1.1 1.1 14.6 28.0	   history2   history2  history2



# **OIL ANALYSIS REPORT**









Unique Number : 10938680 Test Package : MOB 1 (Additional Tests: TBN) Contact: ED DAVIS Certificate L2367 edavis@millertransgroup.com 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)

Laboratory

Sample No.

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