

## **OIL ANALYSIS REPORT**

Sample Rating Trend





## Component

**Diesel Engine** Elui

PETRO CANADA DURON SHP 10W30 (--- 0

### 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.

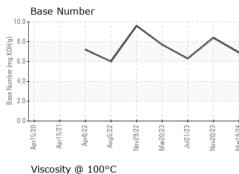
#### Fluid Condition

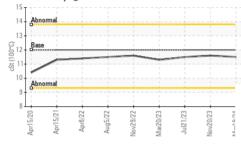
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

ITS)		Apr2020 Ap	2021 Apr2022 Aug2022	Nov2022 Mar2023 Jul2023 Nov20	23 Mar2024	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0120690	PCA0113366	PCA0103070
Sample Date		Client Info		19 Mar 2024	20 Nov 2023	21 Jul 2023
Machine Age	mls	Client Info		203525	188206	0
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	19	9	28
Chromium	ppm	ASTM D5185m	>20	1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	7	6	14
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	8	7	16
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	9	16	6
	ppm		-	-		0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	0 50	0 65	0 62	0 68
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0	0 65 <1	0 62 <1	0 68 <1
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950	0 65 <1 906	0 62 <1 876	0 68 <1 979
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050	0 65 <1 906 1297	0 62 <1 876 1200	0 68 <1 979 1179
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995	0 65 <1 906 1297 983	0 62 <1 876 1200 1011	0 68 <1 979 1179 945
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 50 0 950 1050 995 1180	0 65 <1 906 1297 983 1201	0 62 <1 876 1200 1011 1264	0 68 <1 979 1179 945 1248
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 ASTM D5185m	0 50 0 950 1050 995 1180 2600	0 65 <1 906 1297 983 1201 3294	0 62 <1 876 1200 1011 1264 3064	0 68 <1 979 1179 945 1248 3005
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600	0 65 <1 906 1297 983 1201 3294 current	0 62 <1 876 1200 1011 1264 3064 history1	0 68 <1 979 1179 945 1248 3005 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600	0 65 <1 906 1297 983 1201 3294 current 3	0 62 <1 876 1200 1011 1264 3064 <u>history1</u> 3	0 68 <1 979 1179 945 1248 3005 history2 4
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm 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 50 0 950 1050 995 1180 2600 kimit/base >25	0 65 <1 906 1297 983 1201 3294 current 3 2	0 62 <1 876 1200 1011 1264 3064 history1 3 2	0 68 <1 979 1179 945 1248 3005 history2 4 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >25 >20	0 65 <1 906 1297 983 1201 3294 <u>current</u> 3 2 8	0 62 <1 876 1200 1011 1264 3064 <u>history1</u> 3 2 7	0 68 <1 979 1179 945 1248 3005 history2 4 2 25
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >25 >20	0 65 <1 906 1297 983 1201 3294 current 3 2 8 8	0 62 <1 876 1200 1011 1264 3064 history1 3 2 7 7 history1	0 68 <1 979 1179 945 1248 3005 history2 4 2 25 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i>	0 65 <1 906 1297 983 1201 3294 current 3 2 8 current 0.7	0 62 <1 876 1200 1011 1264 3064 history1 3 2 7 7 history1 0.4	0 68 <1 979 1179 945 1248 3005 history2 4 2 25 history2 0.8
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 50 950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >20	0 65 <1 906 1297 983 1201 3294 <u>current</u> 3 2 8 <u>current</u> 0.7 8.5	0 62 <1 876 1200 1011 1264 3064 history1 3 2 7 7 history1 0.4 7.3	0 68 <1 979 1179 945 1248 3005 history2 4 2 25 history2 0.8 9.2
CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 50 950 1050 995 1180 2600 imit/base >25 20 imit/base >3 >20 >30	0 65 <1 906 1297 983 1201 3294 <u>current</u> 3 2 8 <u>current</u> 0.7 8.5 20.3	0 62 <1 876 1200 1011 1264 3064 history1 3 2 7 7 history1 0.4 7.3 18.8	0 68 <1 979 1179 945 1248 3005 history2 4 2 25 history2 0.8 9.2 21.5

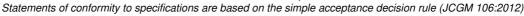


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Certificate L2367

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