

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 738214

Component Diesel Engine

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

DIAGNOSIS

Recommendation

Oil and filter 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

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Fluid Condition

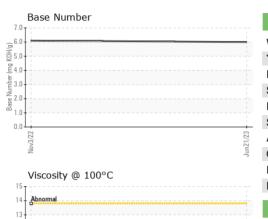
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

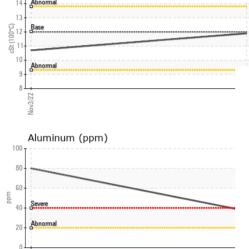
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AL)		L	Nov2022	Jun2023		
SAMPLE INFOR	MATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		PCA0100768	PCA0076767	
Sample Date		Client Info		21 Jun 2023	03 Nov 2022	
Machine Age	mls	Client Info		144109	59173	
Oil Age	mls	Client Info		144109	59173	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>100	73	124	
Chromium	ppm	ASTM D5185m	>20	3	6	
Nickel	ppm	ASTM D5185m	>4	۲ ۲	0	
Titanium	ppm	ASTM D5185m		24	<1	
Silver	ppm	ASTM D5185m	>3	_+ <1	3	
Aluminum	ppm	ASTM D5185m	>20	37	80	
Lead	ppm	ASTM D5185m	>40	0	<1	
Copper	ppm	ASTM D5185m	>330	44	316	
Tin	ppm	ASTM D5185m	>15	2	5	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	2	15	17	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	50	46	49	
Manganese	ppm	ASTM D5185m	0	2	4	
Magnesium	ppm	ASTM D5185m	950	736	535	
Calcium	ppm	ASTM D5185m	1050	1531	1805	
Phosphorus	ppm	ASTM D5185m	995	900	741	
Zinc	ppm	ASTM D5185m	1180	1171	958	
Sulfur	ppm	ASTM D5185m	2600	2985	2376	
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CONTAMINAN	ITS	method	limit/base	current	history 1	riistory 2
Silicon	NTS ppm	method ASTM D5185m	limit/base	current 9	history 1 11	
Silicon	ppm	ASTM D5185m		9	11	
Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m	>25	9 4	11 4	
Silicon Sodium Potassium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>25 >20	9 4 83	11 4 193	
Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	>25 >20 limit/base	9 4 83 current	11 4 193 history 1	 history 2
Silicon Sodium Potassium INFRA-RED	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	>25 >20 limit/base >3	9 4 83 current 1.7	11 4 193 history 1 1.5	 history 2
Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	>25 >20 limit/base >3 >20	9 4 83 current 1.7 13.5	11 4 193 history 1 1.5 16.1	 history 2
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	>25 >20 limit/base >3 >20 >30	9 4 83 <u>current</u> 1.7 13.5 27.5	11 4 193 history 1 1.5 16.1 28.4	 history 2

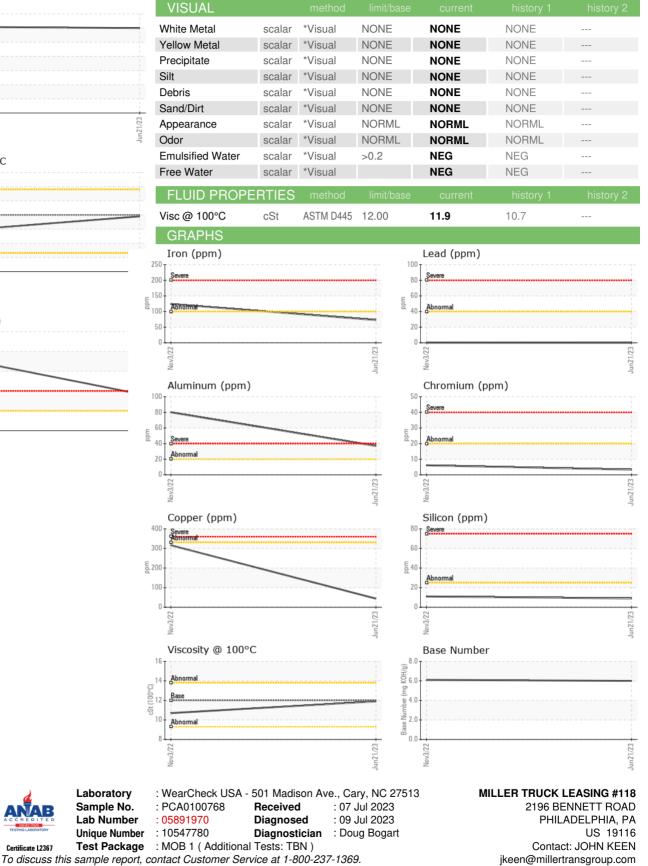


Nov3/22

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* - 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

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