

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **738679** 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

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. There is no indication of any contamination in the oil.

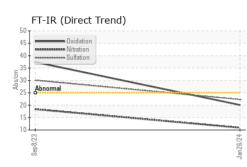
Fluid Condition

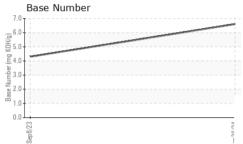
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

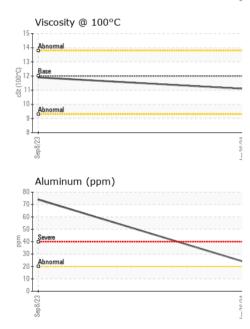
TS)			Sep 2023	Jan2024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0110153	PCA0099728	
Sample Date		Client Info		26 Jan 2024	08 Sep 2023	
Machine Age	mls	Client Info		109981	85950	
Dil Age	mls	Client Info		20000	20000	
Dil Changed		Client Info		N/A	Changed	
Sample Status				NORMAL	ABNORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
⁻ uel		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	52	1 07	
Chromium	ppm	ASTM D5185m	>20	3	6	
Nickel	ppm	ASTM D5185m	>4	0	2	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>20	24	74	
_ead	ppm	ASTM D5185m	>40	0	<1	
Copper	ppm	ASTM D5185m	>330	46	167	
	ppm	ASTM D5185m	>15	2	7	
/anadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	15	23	
Barium	ppm	ASTM D5185m	0	0	<1	
Nolybdenum	ppm	ASTM D5185m	50	71	41	
Manganese	ppm	ASTM D5185m	0	2	4	
Magnesium	ppm	ASTM D5185m	950	813	499	
Calcium	ppm	ASTM D5185m	1050	1459	1860	
Phosphorus	ppm	ASTM D5185m	995	1018	773	
Zinc	ppm	ASTM D5185m	1180	1246	967	
Sulfur	ppm	ASTM D5185m	2600	2774	1772	
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	11	
Sodium	ppm	ASTM D5185m		3	8	
Potassium	ppm	ASTM D5185m	>20	58	190	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	1	2.1	
Nitration	Abs/cm	*ASTM D7624	>20	10.9	18.4	
			> 20	22.3	30.1	
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	00.1	
Sulfation FLUID DEGRA			limit/base	current	history1	history2
Sulfation FLUID DEGRA Oxidation			limit/base			



OIL ANALYSIS REPORT







White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Cdor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual NORML NORML NORML Free Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NORML NORML NORML Free Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NORML NORML NORML Free Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual MEG NEG Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS
Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NORML NORML NORML Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Iron (ppm)
Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NORML NEG NEG Free Water scalar *Visual NEG NEG Free Water scalar *Visual NORML NEG NEG Free Water scalar *Visual NORML NEG NEG Free Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Enulsified Water scalar *Visual NORML NEG NEG Free Water scalar *Visual NEG NEG Enulsified Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Enulsified Water scalar *Visual NEG NEG Enulsified Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Enulsified Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Enulsified Water scalar *Visual NEG NEG Free Water scalar *Visual *0.2 NEG NEG Free Water scalar *Visual *0.2 NEG NEG Free Water scalar *Visual *0.2 NEG NEG Free Water ** Figure ** F
Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NORML NORML NORML Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Tron (ppm) Lead (ppm)
Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NORML NEG NEG Free Water scalar *Visual NORML NEG NEG Full D PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Iron (ppm) Lead (ppm)
Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Free Water scalar *Visual NEG NEG Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Iron (ppm) Lead (ppm)
Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Lead (ppm) Lead (ppm) Iron (ppm) Lead (ppm) If the mail If the mail If the mail If the mail If the mail If the mail
Emulsified Water scalar *Visual >0.2 NEG NEG Free Water scalar *Visual NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Lead (ppm) Lead (ppm) Iron (ppm) Lead (ppm) If the mail If the mail If the mail If the mail If the mail If the mail
Free Water scalar *Visual NEG NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Iron (ppm) Lead (ppm) Generation of the second seco
FLUID PROPERTIES method limit/base current history1 history2 Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Iron (ppm) Lead (ppm)
Visc @ 100°C cSt ASTM D445 12.00 11.1 11.9 GRAPHS Iron (ppm) Lead (ppm)
GRAPHS Iron (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Abnormal Abnormal
Iron (ppm) Lead (ppm) Lead (ppm) Lead (ppm) bevere
250 200 Severe 150 50 50 50 50 50 50 50 50 50 50 50 50 5
200 Severe 80 Se
End Abnormal 50 20 0 0
0
5 5 5
Sep 8/23 Sep 8/23 Sep 8/23
Aluminum (ppm) Chromium (ppm)
40 - Severe
abrend
Sep 8/23 Jan 26/24 Jan 26/24
Copper (ppm) Silicon (ppm)
400 Severe
300 - 60 -
틆 200-
Sep 8/23
Viscosity @ 100°C Base Number
14 Abnormal (0) 00 000 4.0 12 Base 10 Abnormal Abnormal (0) 000 4.0 10 4.0 (0) 000 4.0 10 4.0 10 500 800 1000 1000 1000 1000 1000 1000
12-00-12- Base 73-00-12- 73-00-12- 8-00-10-10-10-10-10-10-10-10-10-10-10-10-
10 - Abnormal
Sep 8/23 Jan 26/24 Sep 8/23
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 MILLER TRUCK LEASING #121
Sample No. : PCA0110153 Received : 12 Apr 2024 107 HOW LANE Lab Number : 06147083 Tested : 15 Apr 2024 NEW BRUNSWICK, NJ
Lab Number 100147083 Tested 13 Apr 2024 NEW BRONSWICK, NJ Unique Number : 10977161 Diagnosed : 15 Apr 2024 - Wes Davis US 08901
Test Package : MOB 1 (Additional Tests: TBN) Contact: Anthony Cursi

- Unique Number Test Package : MOB 1 (Additional Tests: TBN)
- 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)

Report Id: MILNEW [WUSCAR] 06147083 (Generated: 04/15/2024 18:59:36) Rev: 1

Certificate 12367

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