

## Area **3000 series** Machine Id **Navistar 3268** Component **Diesel Engine** Filuid **PETRO CANADA DURON SHP 10W30 (26 LTR)**

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The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## WEAR

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All component wear rates are normal.

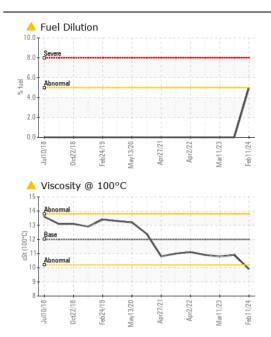
## CONTAMINATION

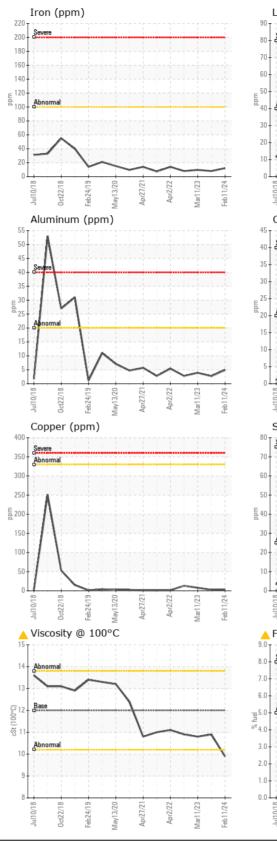
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

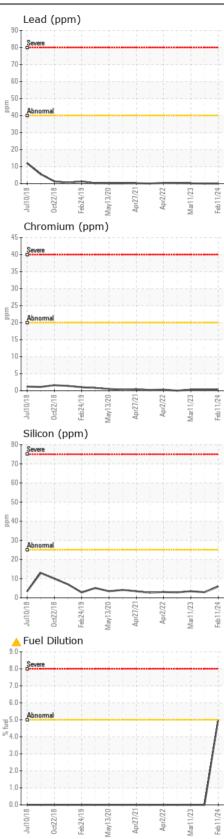
## FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0904898	WC0844390	WC0785890
Sample Date		Client Info		11 Feb 2024	11 Aug 2023	11 Mar 2023
Machine Age	mls	Client Info		148976	149607	140614
Oil Age	mls	Client Info		4369	3993	3846
Filter Age	mls	Client Info		4369	3993	3846
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>100	12	8	10
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	5	3	4
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	3	2	8
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Silicon	ppm	ASTM D5185(m)	>25	6	3	3
Potassium	ppm	ASTM D5185(m)	>20	4	1	<1
Fuel	%	ASTM D7593*	>5	→ ▲ 5	<1.0	<1.0
Water	70	WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method	20.L	NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.3	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.3	7.4	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.7	19.6	21.5
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	VLITE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water		Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		3	1	<1
Boron	ppm	ASTM D5185(m)	2	6	8	6
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	58	58	55
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	909	932	889
Calcium	ppm	ASTM D5185(m)	1050	1017	995	1062
Phosphorus	ppm	ASTM D5185(m)	995	994	1026	1022
Zinc	ppm	ASTM D5185(m)	1180	1112	1148	1153
Sulfur	ppm	ASTM D5185(m)	2600	2649	2568	2611
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.3	15.1	15.6
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	A 9.9	10.9	10.8
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Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. : WC0904898 : 21 Feb 2024 Received Lab Number : 02616916 : 22 Feb 2024 Tested ISO 17025:2017 Accredited : 22 Feb 2024 - Wes Davis Unique Number : 5734026 Diagnosed Laboratory Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, Visual) To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

MANITOULIN TRANSPORT

75 MUMFORD ROAD LIVELY, ON CA P3Y 1L1 Contact: Todd Smith tosmith@manitoulintransport.com T: (705)562-3302 F: x:



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Contact/Location: Todd Smith - MANLIV