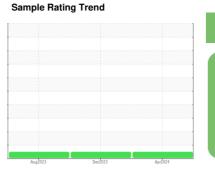


# **OIL ANALYSIS REPORT**

# (P955047) Walgreens - Tractor [Walgreens - Tractor] 136D25683

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)





### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the

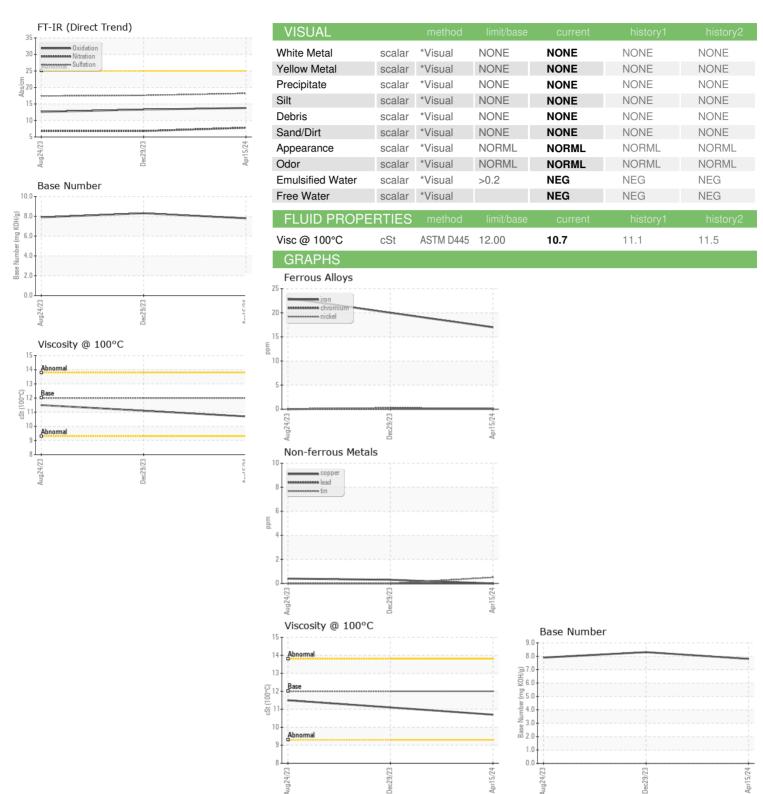
### **Fluid Condition**

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

Sample Date   Client Info   15 Apr 2024   29 Dec 2023   24 Aug 20   Machine Age   mls   Client Info   94975   91923   88769   101	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age     mls     Client Info     94975     91923     88769       Oil Age     mls     Client Info     3052     91923     0       Oil Changed     Changed     Changed     Changed     Changed     Changed       Sample Status     NORMAL     NORMAL     NORMAL     NORMAL     NORMAL       CONTAMINATION     method     Imitibase     current     history1     history1       Fuel     WC Method     55     <1.0     <1.0     <1.0       Water     WC Method     >50.2     NEG     NEG     NEG       Glycol     WC Method     NEG     NEG     NEG       WEAR METALS     method     limit/base     current     history1     history1       Iron     ppm     ASTM D5185m     >110     17     20     23       Chromium     ppm     ASTM D5185m     >4     <1     <1     0       Iron     ppm     ASTM D5185m     >2     0     0     0       Alluminum     ppm	Sample Number		Client Info		PCA0123041	PCA0110522	PCA0093538
Oil Age     mls     Client Info     3052     91923     0       Oil Changed Sample Status     Client Info     Changed Changed Changed Changed Changed Changed Changed NORMAL NORMAL NORMAL NORMAL NORMAL       CONTAMINATION     method     limit/base current     history1     history1       Fuel     WC Method     S < 1.0	Sample Date		Client Info		15 Apr 2024	29 Dec 2023	24 Aug 2023
Oil Changed Sample Status     Client Info MoRMAL     Changed NORMAL     Changed NeG	Machine Age	mls	Client Info		94975	91923	88769
Sample Status	Oil Age	mls	Client Info		3052	91923	0
CONTAMINATION     method     limit/base     current     history1     history1       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 METALS     method     limit/base     current     history1     history1       Iron     ppm     ASTM D5185m     >110     17     20     23       Chromium     ppm     ASTM D5185m     >4     <1     <1     0       Nickel     ppm     ASTM D5185m     >2     0     0     0       Silver     ppm     ASTM D5185m     >2     0     0     0       Lead     ppm     ASTM D5185m     >25     2     2     2     2     2       Copper     ppm     ASTM D5185m     >85     0     <1     <1     1       Tin     ppm     ASTM D5185m     >85     0     <1     <1	Oil Changed		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water Glycol     WC Method     >0.2     NEG NEG     NEG NEG     NEG NEG       WEAR METALS     method     limit/base     current     history1     history1       Iron     ppm     ASTM D5185m     >110     17     20     23       Chromium     ppm     ASTM D5185m     >4     <1     <1     0       Nickel     ppm     ASTM D5185m     >2     0     0     0     0       Sliver     ppm     ASTM D5185m     >2     0     0     0     0       Aluminum     ppm     ASTM D5185m     >2     0     0     0     0       Aluminum     ppm     ASTM D5185m     >2     0     0     0     0       Copper     ppm     ASTM D5185m     >4     0     0     0     0     0       Copper     ppm     ASTM D5185m     >4     <1     0     0     0     0     0     0     0     0     0     0     0     0     0 <th>CONTAMINATI</th> <th>ON</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium     ppm     ASTM D5185m     >4     <1	WEAR METALS	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>110	17	20	23
Titanium     ppm     ASTM D5185m     15     6     33       Silver     ppm     ASTM D5185m     >2     0     0     0       Aluminum     ppm     ASTM D5185m     >25     2     2     2       Lead     ppm     ASTM D5185m     >45     0     0     0       Copper     ppm     ASTM D5185m     >4     -1     0     0       Tin     ppm     ASTM D5185m     >4     -1     0     0       Vanadium     ppm     ASTM D5185m     0     0     -1     0       Vanadium     ppm     ASTM D5185m     0     0     -1     0       Cadmium     ppm     ASTM D5185m     0     0     0     -1       Boron     ppm     ASTM D5185m     0     0     0     0       Boron     ppm     ASTM D5185m     0     0     0     0       Barium     ppm     ASTM D5185m     0     47     52     27	Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Titanium     ppm     ASTM D5185m     15     6     33       Silver     ppm     ASTM D5185m     >2     0     0     0       Aluminum     ppm     ASTM D5185m     >25     2     2     2       Lead     ppm     ASTM D5185m     >45     0     0     0       Copper     ppm     ASTM D5185m     >85     0     <1	Nickel			>2	0	0	0
Silver     ppm     ASTM D5185m     >2     0     0     0       Aluminum     ppm     ASTM D5185m     >25     2     2     2       Lead     ppm     ASTM D5185m     >45     0     0     0       Copper     ppm     ASTM D5185m     >85     0     <1     <1       Tin     ppm     ASTM D5185m     0     0     0     <1       Vanadium     ppm     ASTM D5185m     0     0     0     <1       Vanadium     ppm     ASTM D5185m     0     0     0     <1       Cadmium     ppm     ASTM D5185m     0     0     0     <1       Boron     ppm     ASTM D5185m     2     33     22     57       Barium     ppm     ASTM D5185m     0     0     0     0       Molydenum     ppm     ASTM D5185m     0     47     52     27       Mangaesium     ppm     ASTM D5185m     950     811     844	Titanium		ASTM D5185m		15	6	33
Aluminum	Silver		ASTM D5185m	>2	0	0	0
Lead     ppm     ASTM D5185m     >45     0     0     0       Copper     ppm     ASTM D5185m     >85     0     <1     <1       Tin     ppm     ASTM D5185m     >4     <1     0     0       Vanadium     ppm     ASTM D5185m     0     0     0     <1       Cadmium     ppm     ASTM D5185m     0     0     0     0       ADDITIVES     method     limit/base     current     history1     history1       Boron     ppm     ASTM D5185m     0     0     0     0       Boron     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     0     47     52     27       Manganese     ppm     ASTM D5185m     0     41     0     0       Magnesium     ppm     ASTM D5185m     950     811     844     584       Calcium     ppm     ASTM D5185m     1050     1207     1203	Aluminum	ppm	ASTM D5185m	>25	2	2	2
Copper     ppm     ASTM D5185m     >85     0     <1     <1       Tin     ppm     ASTM D5185m     >4     <1	Lead		ASTM D5185m	>45	0	0	0
Tin     ppm     ASTM D5185m     >4     <1     0     0       Vanadium     ppm     ASTM D5185m     0     0     <1       Cadmium     ppm     ASTM D5185m     0     0     0       ADDITIVES     method     limit/base     current     history1     histor       Boron     ppm     ASTM D5185m     0     0     0     0       Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     0     47     52     27       Manganese     ppm     ASTM D5185m     0     <1     0     0       Magnesium     ppm     ASTM D5185m     950     811     844     584       Calcium     ppm     ASTM D5185m     950     1011     991     947       Zinc     ppm     ASTM D5185m     995     1011     991     947       Zinc     ppm     ASTM D5185m     180     1175     1187     1181	Copper		ASTM D5185m	>85	0	<1	<1
Vanadium     ppm     ASTM D5185m     0     0     <1       Cadmium     ppm     ASTM D5185m     0     0     0       ADDITIVES     method     limit/base     current     history1     history1       Boron     ppm     ASTM D5185m     2     33     22     57       Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     0     47     52     27       Manganese     ppm     ASTM D5185m     0     47     52     27       Manganesium     ppm     ASTM D5185m     0     41     0     0       Magnesium     ppm     ASTM D5185m     950     811     844     584       Calcium     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     995     1011     991     947       Zinc     ppm     ASTM D5185m     2600     3601     3418					<1	0	0
Cadmium     ppm     ASTM D5185m     0     0     0       ADDITIVES     method     limit/base     current     history1     history       Boron     ppm     ASTM D5185m     2     33     22     57       Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     47     52     27       Manganese     ppm     ASTM D5185m     0     <1	Vanadium		ASTM D5185m		0		<1
Boron	Cadmium				0		0
Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     47     52     27       Manganese     ppm     ASTM D5185m     0     <1     0     0       Magnesium     ppm     ASTM D5185m     950     811     844     584       Calcium     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     995     1011     991     947       Zinc     ppm     ASTM D5185m     1180     1175     1187     1181       Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history1     history1       Silicon     ppm     ASTM D5185m     >30     4     3     4     3     4     3	ADDITIVES		method	limit/base	current	history1	history2
Barium     ppm     ASTM D5185m     0     0     0     0       Molybdenum     ppm     ASTM D5185m     50     47     52     27       Manganese     ppm     ASTM D5185m     0     <1	Boron	ppm	ASTM D5185m	2	33	22	57
Manganese     ppm     ASTM D5185m     0     <1     0     0       Magnesium     ppm     ASTM D5185m     950     811     844     584       Calcium     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     995     1011     991     947       Zinc     ppm     ASTM D5185m     1180     1175     1187     1181       Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history1     history1     history1       Silicon     ppm     ASTM D5185m     >20     2     2     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1 <t< td=""><td>Barium</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>0</th><td>0</td><td>0</td></t<>	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium     ppm     ASTM D5185m     950     811     844     584       Calcium     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     995     1011     991     947       Zinc     ppm     ASTM D5185m     180     1175     1187     1181       Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history1       Silicon     ppm     ASTM D5185m     >30     4     3     4       Sodium     ppm     ASTM D5185m     >20     2     2     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7624	Molybdenum	ppm	ASTM D5185m	50	47	52	27
Magnesium     ppm     ASTM D5185m     950     811     844     584       Calcium     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     995     1011     991     947       Zinc     ppm     ASTM D5185m     1180     1175     1187     1181       Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history1       Silicon     ppm     ASTM D5185m     >30     4     3     4       Sodium     ppm     ASTM D5185m     >20     2     2     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D74	Manganese	ppm	ASTM D5185m	0	<1	0	0
Calcium     ppm     ASTM D5185m     1050     1207     1203     1613       Phosphorus     ppm     ASTM D5185m     995     1011     991     947       Zinc     ppm     ASTM D5185m     1180     1175     1187     1181       Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history       Silicon     ppm     ASTM D5185m     >30     4     3     4       Sodium     ppm     ASTM D5185m     >20     2     2     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     *ASTM D74	Magnesium		ASTM D5185m	950	811	844	584
Zinc     ppm     ASTM D5185m     1180     1175     1187     1181       Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history       Silicon     ppm     ASTM D5185m     >30     4     3     4       Sodium     ppm     ASTM D5185m     >30     4     3     4       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history1       Oxidation     Abs/.1mm     *	-		ASTM D5185m	1050	1207	1203	1613
Zinc     ppm     ASTM D5185m     1180     1175     1187     1181       Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history       Silicon     ppm     ASTM D5185m     >30     4     3     4       Sodium     ppm     ASTM D5185m     >20     2     2     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history1       Oxidation     Abs/.1mm	Phosphorus	ppm	ASTM D5185m	995	1011	991	947
Sulfur     ppm     ASTM D5185m     2600     3601     3418     4004       CONTAMINANTS     method     limit/base     current     history1     history       Silicon     ppm     ASTM D5185m     >30     4     3     4       Sodium     ppm     ASTM D5185m     1     0     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history1       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6			ASTM D5185m	1180	1175	1187	1181
Silicon     ppm     ASTM D5185m     >30     4     3     4       Sodium     ppm     ASTM D5185m     1     0     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	Sulfur		ASTM D5185m	2600	3601	3418	4004
Sodium     ppm     ASTM D5185m     1     0     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	CONTAMINAN	TS	method	limit/base	current	history1	history2
Sodium     ppm     ASTM D5185m     1     0     2       Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	Silicon	ppm	ASTM D5185m	>30	4	3	4
Potassium     ppm     ASTM D5185m     >20     2     2     2       INFRA-RED     method     limit/base     current     history1     history1       Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	Sodium	• •	ASTM D5185m		1		2
Soot %     %     *ASTM D7844     >3     0.3     0.3     0.2       Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION method limit/base current     history1     history       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	Potassium	ppm	ASTM D5185m	>20	2	2	2
Nitration     Abs/cm     *ASTM D7624     >20     7.8     6.8     6.8       Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION method limit/base current     history1     history1     history1       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
Sulfation     Abs/.1mm     *ASTM D7415     >30     18.2     17.6     17.4       FLUID DEGRADATION     method     limit/base     current     history1     history       Oxidation     Abs/.1mm     *ASTM D7414     >25     13.8     13.3     12.6	Nitration	Abs/cm	*ASTM D7624	>20	7.8	6.8	6.8
Oxidation Abs/.1mm *ASTM D7414 >25 <b>13.8</b> 13.3 12.6	Sulfation	Abs/.1mm	*ASTM D7415	>30			
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	13.3	12.6
	Base Number (BN)	mg KOH/g	ASTM D2896		7.8	8.3	7.9



## **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No.

: PCA0123041 Lab Number : 06157304 Unique Number : 10992727

Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 23 Apr 2024 **Tested** : 24 Apr 2024

Diagnosed

: 24 Apr 2024 - Wes Davis

3425 Tremley Point Road Linden, NJ US 07036

Contact: Shop 1376 Oil Analysis shop1376@transervice.com

Transervice - Shop 1376 - Berkeley-Linden

To discuss this sample report, contact Customer Service at 1-800-237-1369.  $^st$  - 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)

T:

F: