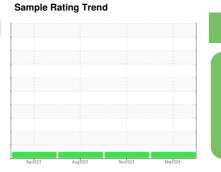


OIL ANALYSIS REPORT

(AU771S) Supermarket - Tractor **FREIGHTLINER 107A8830**

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

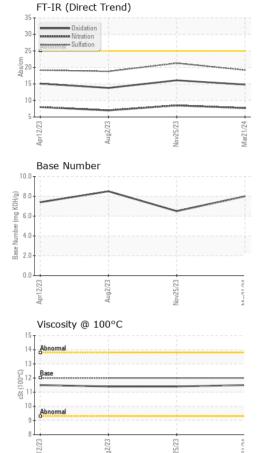
Fluid Condition

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

Client Info PCA0116948 PCA0110986 PCA0099837 PCA01998637 PCA0199837 PCA0199837 PCA0199837 PCA0199837 PCA0199837 PCA0199837 PCA0199837 PCA0099837 P	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Client Info 21 Mar 2024 25 Nov 2023 02 Aug 2023 03 Aug 2023						·	•
Machine Age mls Client Info 263420 243782 225644							
Dil Age		nls					Ü
Contained Client Info Changed NoRMAL NORMAL NORMAL NORMAL NORMAL NORMAL							
CONTAMINATION	-	1110					
Fuel	Sample Status					Ü	Ü
Water Glycol WC Method WC Method >0.2 NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 11 17 8 Chromium ppm ASTM D5185m >5 <1	CONTAMINATIO	N	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 11 17 8 Chromium ppm ASTM D5185m >5 <1	Water		WC Method	>0.2	NEG	NEG	NEG
Chromium	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	lron p	opm	ASTM D5185m	>80	11	17	8
Description	Chromium p	opm	ASTM D5185m	>5	<1	<1	<1
Silver	Nickel p	opm	ASTM D5185m	>2	0	0	0
Aluminum	Titanium p	opm	ASTM D5185m		0	0	<1
Lead	Silver p	opm	ASTM D5185m	>3	0	0	<1
Copper ppm ASTM D5185m >150 5 9 6 Tin ppm ASTM D5185m >5 0 0 <1	Aluminum p	opm	ASTM D5185m	>30	5	5	4
Tin	Lead p	opm	ASTM D5185m	>30	0	0	<1
Vanadium ppm ASTM D5185m 0 0 <1 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 2 6 Barium ppm ASTM D5185m 0 0 3 0 Molybdenum ppm ASTM D5185m 50 70 69 66 Manganese ppm ASTM D5185m 950 1033 884 979 Calcium ppm ASTM D5185m 950 1033 884 979 Calcium ppm ASTM D5185m 995 1151 952 998 Zinc ppm ASTM D5185m 180 1338 1149 1210 Sulfur ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 <th< td=""><td>Copper</td><td>opm</td><td>ASTM D5185m</td><td>>150</td><th>5</th><td>9</td><td>6</td></th<>	Copper	opm	ASTM D5185m	>150	5	9	6
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 2 6 Barium ppm ASTM D5185m 0 0 3 0 Molybdenum ppm ASTM D5185m 50 70 69 66 Manganese ppm ASTM D5185m 0 <1	Tin p	opm	ASTM D5185m	>5	0	0	<1
ADDITIVES	Vanadium p	opm	ASTM D5185m		0	0	<1
Boron			ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 70 69 66 Manganese ppm ASTM D5185m 0 <1 0 <1 Magnesium ppm ASTM D5185m 950 1033 884 979 Calcium ppm ASTM D5185m 1050 1183 1058 1132 Phosphorus ppm ASTM D5185m 1050 1183 1058 1132 Phosphorus ppm ASTM D5185m 995 1151 952 998 Zinc ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base	Boron p	opm	ASTM D5185m	2	5	2	6
Manganese ppm ASTM D5185m 0 <1 0 <1 Magnesium ppm ASTM D5185m 950 1033 884 979 Calcium ppm ASTM D5185m 1050 1183 1058 1132 Phosphorus ppm ASTM D5185m 995 1151 952 998 Zinc ppm ASTM D5185m 1180 1338 1149 1210 Sulfur ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 0 4 2 Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844	Barium p	opm	ASTM D5185m	0	0	3	0
Magnesium ppm ASTM D5185m 950 1033 884 979 Calcium ppm ASTM D5185m 1050 1183 1058 1132 Phosphorus ppm ASTM D5185m 995 1151 952 998 Zinc ppm ASTM D5185m 1180 1338 1149 1210 Sulfur ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 0 4 2 Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7	Molybdenum p	opm	ASTM D5185m	50	70	69	66
Calcium ppm ASTM D5185m 1050 1183 1058 1132 Phosphorus ppm ASTM D5185m 995 1151 952 998 Zinc ppm ASTM D5185m 1180 1338 1149 1210 Sulfur ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 0 4 2 Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method <td>Manganese p</td> <td>opm</td> <td>ASTM D5185m</td> <td>0</td> <th><1</th> <td>0</td> <td><1</td>	Manganese p	opm	ASTM D5185m	0	<1	0	<1
Phosphorus ppm ASTM D5185m 995 1151 952 998 Zinc ppm ASTM D5185m 1180 1338 1149 1210 Sulfur ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 0 4 2 Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method <td>Magnesium p</td> <td>opm</td> <td>ASTM D5185m</td> <td>950</td> <th>1033</th> <td>884</td> <td>979</td>	Magnesium p	opm	ASTM D5185m	950	1033	884	979
Zinc ppm ASTM D5185m 1180 1338 1149 1210 Sulfur ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Calcium	opm	ASTM D5185m	1050	1183	1058	1132
Sulfur ppm ASTM D5185m 2600 3575 2810 3504 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m >20 0 4 2 Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Phosphorus p	opm	ASTM D5185m	995	1151	952	998
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m <1	Zinc	opm	ASTM D5185m	1180	1338	1149	1210
Silicon ppm ASTM D5185m >20 4 6 4 Sodium ppm ASTM D5185m <1 0 2 Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Sulfur p	opm	ASTM D5185m	2600	3575	2810	3504
Sodium ppm ASTM D5185m <1 0 2 Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 4 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Silicon p	opm	ASTM D5185m	>20	4	6	4
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Sodium	opm	ASTM D5185m		<1	0	2
Soot % % *ASTM D7844 >3 0.6 1 0.5 Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Potassium p	opm	ASTM D5185m	>20	0	4	2
Nitration Abs/cm *ASTM D7624 >20 7.7 8.5 7.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.2 21.3 18.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Soot %	%	*ASTM D7844	>3	0.6	1	0.5
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.8 16.1 13.8	Nitration /	Abs/cm	*ASTM D7624	>20	7.7	8.5	7.0
Oxidation	Sulfation A	Abs/.1mm	*ASTM D7415	>30	19.2	21.3	18.8
	FLUID DEGRADATION method limit/base current history1 history						history2
Base Number (BN) mg KOH/g ASTM D2896 8.0 6.5 8.5	Oxidation A	Abs/.1mm	*ASTM D7414	>25	14.8	16.1	13.8
	Base Number (BN)	ng KOH/g	ASTM D2896		8.0	6.5	8.5



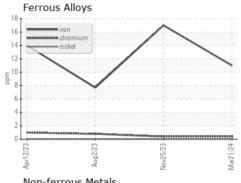
OIL ANALYSIS REPORT



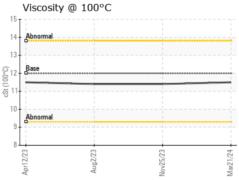
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

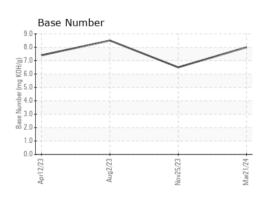
FLUID PROPE	ERITES	method			flistory i	HIStory∠
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.4	11.4

GRAPHS



Non-fe	rrous Metals	_	_
8	copper lead		
6			
4			
2			
0	***************************************		
Apr12/23	Aug2/23	Nov25/23	Mar21,24.
Viscosit	ty @ 100°C		









Laboratory Sample No.

: PCA0116948 Lab Number : 06150117 Unique Number : 10980195

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested** Diagnosed

: 16 Apr 2024 : 17 Apr 2024 : 17 Apr 2024 - Wes Davis

Transervice - Shop 1071 - Supermarket-Dayton 60 A Tower Road Dayton, NJ US 08810 Contact: Brian Quinn

Test Package : FLEET Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

bquinn@transervice.com

* - 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: