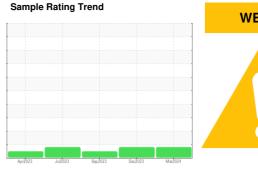


OIL ANALYSIS REPORT

(51455Z) Walgreens - Tractor [Walgreens - Tractor] 136A63281

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)





DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

Contamination

There is no indication of any contamination in the

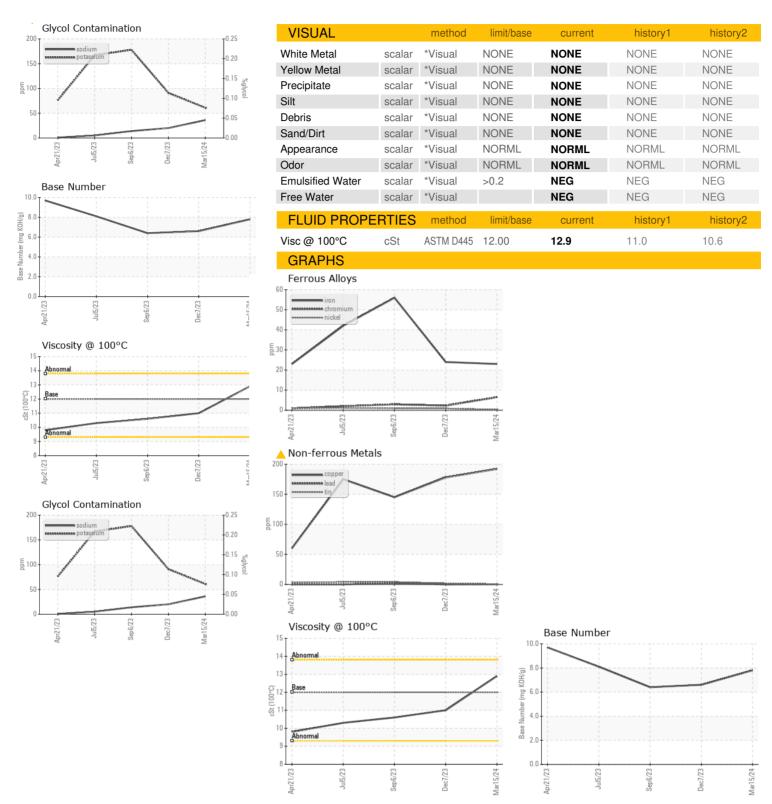
Fluid Condition

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

· <u>-</u> /		Apr2023	Jul2023	Sep2023 Dec2023	Mar2024	
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0112827	PCA0112875	PCA0103848
Sample Date		Client Info		15 Mar 2024	07 Dec 2023	06 Sep 2023
Machine Age	mls	Client Info		112220	81656	52296
Oil Age	mls	Client Info		59924	29360	52296
Oil Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
CONTAMINATIO	NC	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS	3	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	23	24	56
Chromium	ppm	ASTM D5185m	>5	6	2	3
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m		5	14	52
Lead	ppm	ASTM D5185m	>30	<1	0	2
Copper	ppm	ASTM D5185m		192	<u>▲</u> 178	145
Tin	ppm	ASTM D5185m	>5	<1	2	4
Vanadium	ppm	ASTM D5185m		0	0	<1
	ppm	ASTM D5185m		0	<1	0
ADDITIVES	le le	method	limit/base		history1	history2
_				current		
Boron	ppm	ASTM D5185m	2	11	2	25
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2	11 0	2	25 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	11 0 75	2 12 61	25 0 51
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	11 0 75	2 12 61 1	25 0 51 4
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	11 0 75 1 804	2 12 61 1 857	25 0 51 4 545
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	11 0 75 1 804 1249	2 12 61 1 857 1200	25 0 51 4 545 1958
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	11 0 75 1 804 1249 852	2 12 61 1 857 1200 890	25 0 51 4 545 1958 759
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	11 0 75 1 804 1249 852 1098	2 12 61 1 857 1200 890 1131	25 0 51 4 545 1958 759 965
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	11 0 75 1 804 1249 852	2 12 61 1 857 1200 890	25 0 51 4 545 1958 759
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	11 0 75 1 804 1249 852 1098	2 12 61 1 857 1200 890 1131	25 0 51 4 545 1958 759 965
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	11 0 75 1 804 1249 852 1098 2466	2 12 61 1 857 1200 890 1131 2263	25 0 51 4 545 1958 759 965 2279
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	11 0 75 1 804 1249 852 1098 2466	2 12 61 1 857 1200 890 1131 2263 history1	25 0 51 4 545 1958 759 965 2279 history2 11 14
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	11 0 75 1 804 1249 852 1098 2466 current	2 12 61 1 857 1200 890 1131 2263 history1	25 0 51 4 545 1958 759 965 2279 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	11 0 75 1 804 1249 852 1098 2466 current 6 36	2 12 61 1 857 1200 890 1131 2263 history1 5	25 0 51 4 545 1958 759 965 2279 history2 11 14
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	11 0 75 1 804 1249 852 1098 2466 current 6 36 61	2 12 61 1 857 1200 890 1131 2263 history1 5 20 91	25 0 51 4 545 1958 759 965 2279 history2 11 14 178
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Glycol	ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20	11 0 75 1 804 1249 852 1098 2466 current 6 36 61 NEG	2 12 61 1 857 1200 890 1131 2263 history1 5 20 91 NEG	25 0 51 4 545 1958 759 965 2279 history2 11 14 178 NEG
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm	ASTM D5185m *ASTM D2982	2 0 50 0 950 1050 995 1180 2600 limit/base >20	11 0 75 1 804 1249 852 1098 2466 current 6 36 61 NEG	2 12 61 1 857 1200 890 1131 2263 history1 5 20 91 NEG	25 0 51 4 545 1958 759 965 2279 history2 11 14 178 NEG history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm	ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20	11 0 75 1 804 1249 852 1098 2466 current 6 36 61 NEG current 0.3	2 12 61 1 857 1200 890 1131 2263 history1 5 20 91 NEG history1	25 0 51 4 545 1958 759 965 2279 history2 11 14 178 NEG history2 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20	11 0 75 1 804 1249 852 1098 2466 current 6 36 61 NEG current 0.3 8.3	2 12 61 1 857 1200 890 1131 2263 history1 5 20 91 NEG history1 0.4 8.9	25 0 51 4 545 1958 759 965 2279 history2 11 14 178 NEG history2 0.5 11.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m *ASTM D78185m *ASTM D7844 *ASTM D7624 *ASTM D7415 method	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 >3 >20 >30 limit/base	11 0 75 1 804 1249 852 1098 2466 current 6 36 61 NEG current 0.3 8.3 20.2 current	2 12 61 1 857 1200 890 1131 2263 history1 5 20 91 NEG history1 0.4 8.9 20.7 history1	25 0 51 4 545 1958 759 965 2279 history2 11 14 178 NEG history2 0.5 11.2 23.6 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANT Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	2 0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3 >20 >30	11 0 75 1 804 1249 852 1098 2466 current 6 36 61 NEG current 0.3 8.3 20.2	2 12 61 1 857 1200 890 1131 2263 history1 5 20 91 NEG history1 0.4 8.9 20.7	25 0 51 4 545 1958 759 965 2279 history2 11 14 178 NEG history2 0.5 11.2 23.6



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: 06126197 **Unique Number** : 10940348

: PCA0112827 Received **Tested**

: 22 Mar 2024

: 26 Mar 2024

: 26 Mar 2024 - Jonathan Hester

Diagnosed

Test Package: FLEET (Additional Tests: Glycol)

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)

Transervice - Shop 1364 - Berkeley-Mt. Vernon

5100 Lake Terrace NE Mt. Vernon, IL

US 62864 Contact: Erien White

ewhite@transervice.com T: (618)244-8726

F: (618)244-8791

Submitted By: Erien White