

PROBLEM SUMMARY

Sample Rating Trend

GLYCOL



CUMMINS 10862

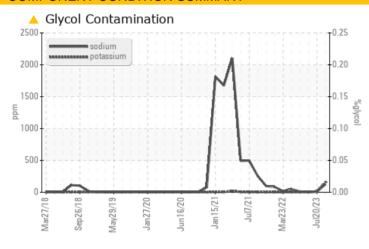
Component

Diesel Engine

Diesel Engine

PETRO CANADA DURON SHP 15W40 (7 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	NORMAL	NORMAL		
Sodium	ppm	ASTM D5185m		126	10	6		
Potassium	ppm	ASTM D5185m	>20	152	14	<1		

Customer Id: GFL009 Sample No.: GFL0086270 Lab Number: 05923138 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample			?	We recommend an early resample to monitor this condition.
Check Glycol Access			?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

20 Jul 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



26 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

02 Feb 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend

GLYCOL

CUMMINS 10862

Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (7 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high.

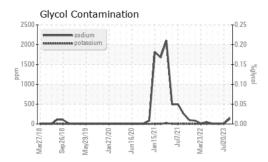
Fluid Condition

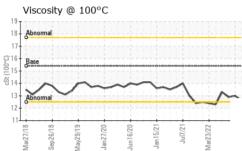
The BN result indicates that there is suitable alkalinity remaining in the oil.

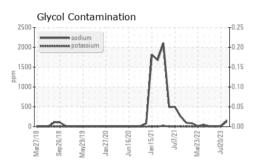
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0086270	GFL0086237	GFL0057612
Sample Date		Client Info		09 Aug 2023	20 Jul 2023	26 May 2023
Machine Age	hrs	Client Info		14133	31895	31895
Oil Age	hrs	Client Info		14133	13984	13812
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
WEAR METALS	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>75	6	2	11
Chromium	ppm	ASTM D5185m	>5	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	<1	1	1
_ead	ppm	ASTM D5185m	>25	<1	0	0
Copper	ppm	ASTM D5185m	>100	<1	0	<1
Γin	ppm	ASTM D5185m	>4	0	0	0
√anadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	15	31	54
Barium	ppm	ASTM D5185m	0	2	0	0
Molybdenum	ppm	ASTM D5185m	60	87	61	49
Manganese	ppm	ASTM D5185m	0	0	0	<1
-						
viadnesium	mag	ASTM D5185m	1010	743	714	558
-	ppm	ASTM D5185m ASTM D5185m		743 1140		558 1522
Calcium	ppm	ASTM D5185m	1070	1140	714 1031 877	1522
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	1070 1150	1140 928	1031 877	1522 779
Calcium Phosphorus Zinc	ppm	ASTM D5185m	1070	1140	1031	1522
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270	1140 928 1125	1031 877 1047	1522 779 967
Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base	1140 928 1125 3148	1031 877 1047 2856	1522 779 967 2880
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1070 1150 1270 2060 limit/base	1140 928 1125 3148 current	1031 877 1047 2856 history1	1522 779 967 2880 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1070 1150 1270 2060 limit/base	1140 928 1125 3148 current	1031 877 1047 2856 history1	1522 779 967 2880 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25	1140 928 1125 3148 current 5	1031 877 1047 2856 history1 5	1522 779 967 2880 history2 17
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	1070 1150 1270 2060 limit/base >25	1140 928 1125 3148 current 5 126 152	1031 877 1047 2856 history1 5 10	1522 779 967 2880 history2 17 6 <1
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982	1070 1150 1270 2060 limit/base >25	1140 928 1125 3148	1031 877 1047 2856 history1 5 10 14 NEG	1522 779 967 2880 history2 17 6 <1 NEG
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method	1070 1150 1270 2060 limit/base >25 >20	1140 928 1125 3148 current 5 126 152 NEG current	1031 877 1047 2856 history1 5 10 14 NEG	1522 779 967 2880 history2 17 6 <1 NEG
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844	1070 1150 1270 2060 limit/base >25 >20	1140 928 1125 3148 current 5 ▲ 126 ▲ 152 NEG current 0.3	1031 877 1047 2856 history1 5 10 14 NEG history1 0.1	1522 779 967 2880 history2 17 6 <1 NEG history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm % Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7624 *ASTM D76145	1070 1150 1270 2060 limit/base >25 >20 limit/base >6 >20	1140 928 1125 3148	1031 877 1047 2856 history1 5 10 14 NEG history1 0.1 4.4	1522 779 967 2880 history2 17 6 <1 NEG history2 0.3 7.4
Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm % Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7624 *ASTM D76145	1070 1150 1270 2060 limit/base >25 >20 limit/base >6 >20 >30	1140 928 1125 3148 current 5 ▲ 126 ▲ 152 NEG current 0.3 6.3 16.9	1031 877 1047 2856 history1 5 10 14 NEG history1 0.1 4.4 16.1	1522 779 967 2880 history2 17 6 <1 NEG history2 0.3 7.4 20.8

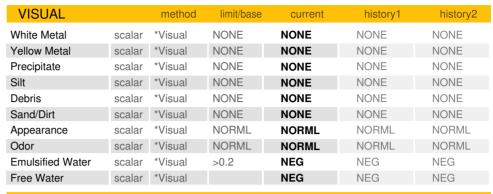


OIL ANALYSIS REPORT



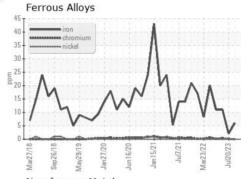


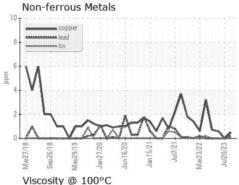


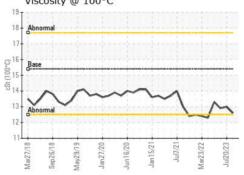


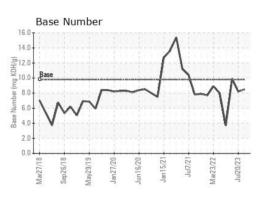
FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	13.0	12.9

GRAPHS













Laboratory Sample No. Lab Number **Unique Number**

: GFL0086270 : 05923138 : 10603085

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

: 14 Aug 2023 : 15 Aug 2023 : Jonathan Hester

Diagnostician 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)

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