



OIL ANALYSIS REPORT

Sample Rating Trend

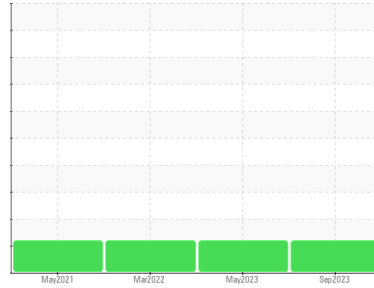
GLYCOL



Area
GFL252
Machine Id
501053

Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 15W40 (--- LTR)



DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation).

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	GFL0093790	GFL0080269	GFL0048453	
Sample Date	Client Info	19 Sep 2023	18 May 2023	19 Mar 2022	
Machine Age	kms	Client Info	1182154	1167035	1109822
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		ATTENTION	ATTENTION	ATTENTION	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >65	20	34	61
Chromium	ppm	ASTM D5185(m) >5	<1	<1	4
Nickel	ppm	ASTM D5185(m) >3	0	0	<1
Titanium	ppm	ASTM D5185(m) >5	0	<1	0
Silver	ppm	ASTM D5185(m) >2	<1	0	0
Aluminum	ppm	ASTM D5185(m) >35	5	9	17
Lead	ppm	ASTM D5185(m) >10	<1	0	2
Copper	ppm	ASTM D5185(m) >180	4	4	44
Tin	ppm	ASTM D5185(m) >8	0	0	<1
Antimony	ppm	ASTM D5185(m) >35	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 0	6	134	3
Barium	ppm	ASTM D5185(m) 0	<1	<1	0
Molybdenum	ppm	ASTM D5185(m) 60	82	117	69
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	961	675	1004
Calcium	ppm	ASTM D5185(m) 1070	1077	1454	1092
Phosphorus	ppm	ASTM D5185(m) 1150	974	669	949
Zinc	ppm	ASTM D5185(m) 1270	1179	773	1210
Sulfur	ppm	ASTM D5185(m) 2060	2434	2005	1962
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >15	8	12	7
Sodium	ppm	ASTM D5185(m)	200	197	258
Potassium	ppm	ASTM D5185(m) >20	15	22	58
Glycol	%	ASTM D7922*	0.0	0.0	0.0

INFRA-RED

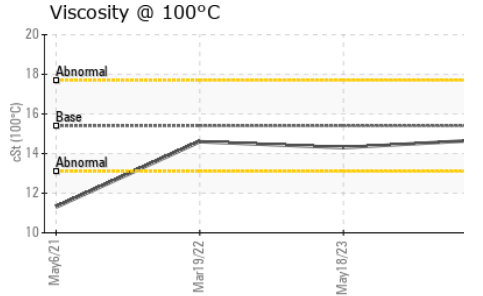
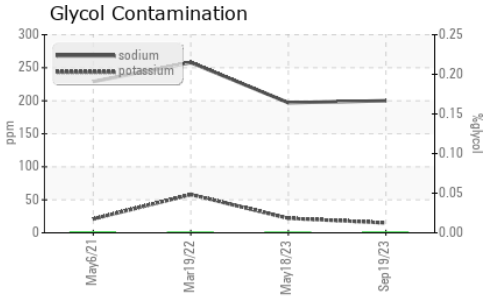
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	0.2	0.4	0.5
Nitration	Abs/cm	ASTM D7624* >20	8.0	10.1	6.6
Sulfation	Abs/.1mm	ASTM D7415* >30	20.2	24.4	18.6

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	15.3	19.5	10.7



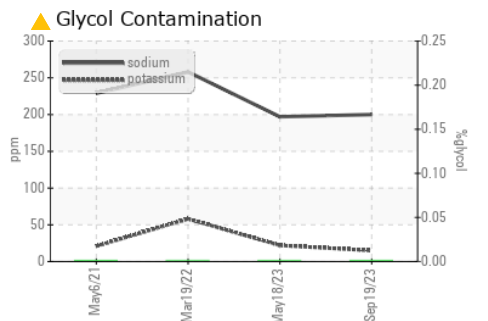
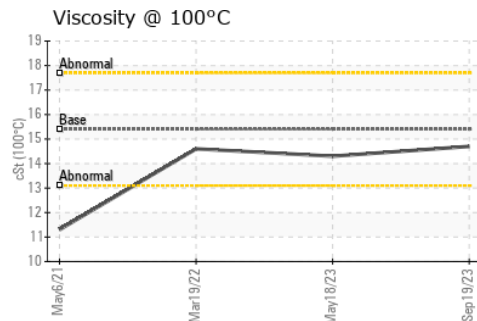
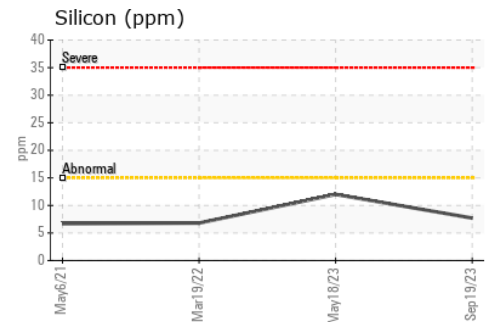
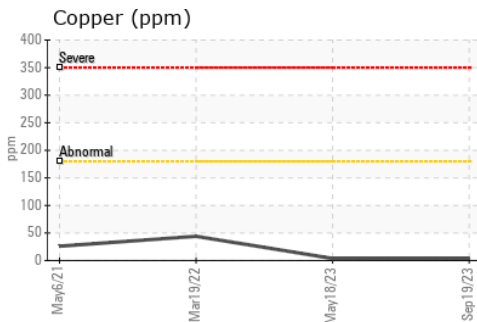
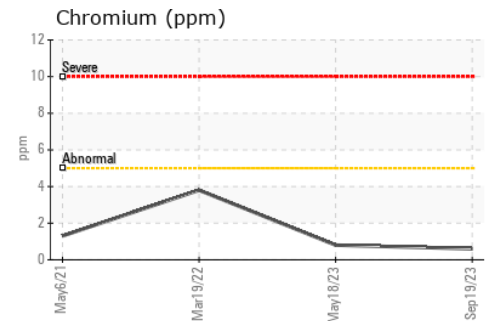
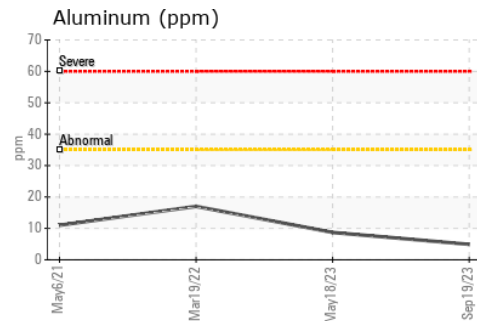
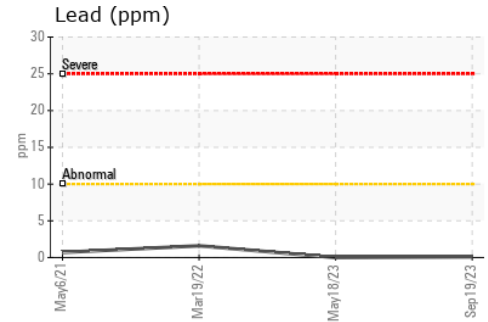
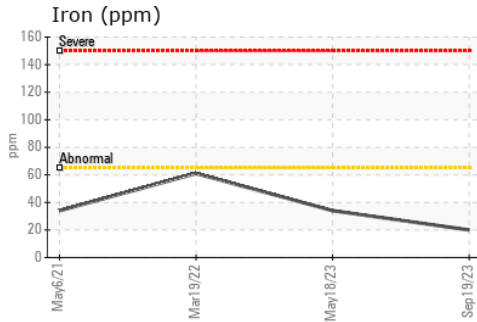
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.3	14.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093790 **Received** : 20 Oct 2023
Lab Number : 02590543 **Diagnosed** : 22 Oct 2023
Unique Number : 5659609 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)

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.

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