

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



726044-310073

Component Diesel Engine Fluid

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

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Engine oil re sample)

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

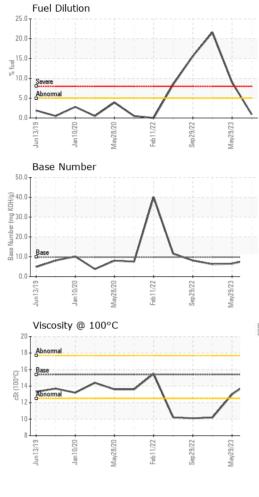
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

·		Jun2019	Jan2020 May2020	Feb2022 Sep2022 M	ay2023	
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0083450	GFL0083429	GFL0065210
Sample Date		Client Info		09 Aug 2023	29 May 2023	20 Mar 2023
Machine Age	hrs	Client Info		17736	17141	16572
Oil Age	hrs	Client Info		17736	17141	16572
Oil Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	SEVERE	SEVERE
CONTAMINAT	ION	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	5	42	42
Chromium	ppm	ASTM D5185m	>5	0	1	2
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m		0	2	3
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>150	<1	2	4
Tin	ppm	ASTM D5185m	>5	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm		0	20	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	60	55	54	46
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	1010	796	876	712
Calcium	ppm	ASTM D5185m	1070	1326	1005	833
Phosphorus	ppm	ASTM D5185m	1150	897	878	729
Zinc	ppm	ASTM D5185m	1270	1070	1116	950
Sulfur	ppm	ASTM D5185m	2060	3247	3138	2190
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	3	6	8
Sodium	ppm	ASTM D5185m		4	8	3
Potassium	ppm	ASTM D5185m	>20	0	<1	<1
Fuel	%	ASTM D3524	>5	0.9	9.0	21.6
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.2	0.8	1
Nitration	Abs/cm	*ASTM D7624	>20	6.1	13.6	14.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	23.6	23.8
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	24.4	26.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.7	6.5	6.2
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OIL ANALYSIS REPORT

VISUAL



White Metal scalar 'Visual NONE NONE NONE NONE NONE NONE Procipital scalar 'Visual NONE NONE NONE NONE NONE Site scalar 'Visual NONE NONE NONE NONE Sand/Dirt scalar 'Visual NONE NONE NONE NONE Sand/Dirt scalar 'Visual NONE NONE NONE NONE Appearance scalar 'Visual NONE NONE NONE NONE Enuisified Water scalar 'Visual NONE NONE NONE Enuisified Water scalar 'Visual NONE NORE NONE NONE Free Water scalar 'Visual NORML		VISUAL		method	limit/base	current	history1	history2
Velocity @ 100°C ONE NONE NONE NONE NONE NONE NONE NONE end grad scalar Visual NONE NO	^	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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Debris scalar Visual NONE NONE NONE NONE NONE NONE NONE NON		Precipitate		*Visual	NONE	NONE	NONE	NONE
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Appearance scalar 'Visual NORML NORM		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
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Laboratory Sample No. Laboratory Sample No.	29/22	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar Visual NEG NEG NEG FLUID PROPERTIES method im/base current history1 history2 Visc @ 100°C cst ASTM D445 15.4 14.6 13.0 10.2 GRAPHS Ferrows Alloys 00000 methods as the state of t	Sep2	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
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 Herous Alloys Ferrous Alloys GE Environmental - 665- East Mount Hausing Sample No. Kerokowski Kalo Serviced :: 21 Aug 2023 		Visc @ 100°C	cSt	ASTM D445	15.4	14.6	13.0	1 0.2
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Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 GFL Environmental - 865 - East Mount Hauling Sample No. : GFL0083450 Received : 21 Aug 2023 7213 East Mount Houston Road Lab Number : 05929201 Diagnosed : 22 Aug 2023 Houston, TX		/19 + /20 +	/22)/22			/22+	1/22 +
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Unique Numbe Test Package : FLEET (Additional Tests: PercentFuel) Certificate L2367 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)

Submitted By: TECHNICIAN ACCOUNT

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