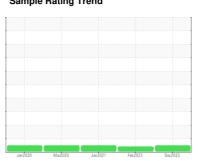


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id **Chevrolet 4347**

Component

Gasoline Engine

PETRO CANADA DURON SHP 10W30 (--- 0

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

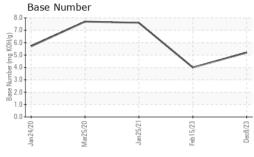
Fluid Condition

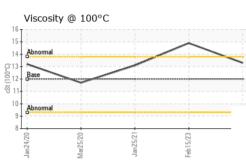
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sample Date Client Info 08 Dec 2023 15 Feb 2023 25 Jan 2021 Machine Age mls Client Info 90528 83044 57000 Oil Age mls Client Info 7484 26044 1670 Oil Changed Client Info Changed Changed Changed Sample Status NORMAL ATTENTION NORMAL CONTAMINATION method limit/base current history1 history2	AL)		Jan 2020	Mar2020	Jan2021 Feb2023	Dec2023	
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 90528 83044 57000	Sample Number		Client Info		PCA0091612	PCA0071432	PCA0013092
Oil Age mIs Client Info 7484 26044 1670 Oil Changed Client Info Changed Changed Changed Changed Sample Status NORMAL ATTENTION NORMAL ATTENTION NORMAL CONTAMINATION method Imitibase current history1 history2 Fuel WC Method >4.0 <1.0	Sample Date		Client Info		08 Dec 2023	15 Feb 2023	25 Jan 2021
Client Info Changed Changed Changed Changed NORMAL ATTENTION NORMAL	Machine Age	mls	Client Info		90528	83044	57000
NORMAL ATTENTION NORMAL	Oil Age	mls	Client Info		7484	26044	1670
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >4.0 <1.0	Oil Changed		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	ATTENTION	NORMAL
Water WC Method SO.2 NEG NEG NEG Glycol WC Method Imitibase current history1 history2 WEAR METALS method limitibase current history1 history2 Iron ppm ASTM D5185m >150 18 25 6 Chromium ppm ASTM D5185m >20 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 <1 1 <1 <1 Nickel ppm ASTM D5185m >5 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>150	18	25	6
Titanium	Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Silver	Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Aluminum ppm ASTM D5185m >40 2 6 2 Lead ppm ASTM D5185m >50 0 <1	Titanium	ppm	ASTM D5185m		0	<1	<1
Lead	Silver	ppm	ASTM D5185m	>2	0	0	<1
Copper ppm ASTM D5185m >155 33 43 45 Tin ppm ASTM D5185m >10 0 <1	Aluminum	ppm	ASTM D5185m	>40	2	6	2
Tin	Lead	ppm	ASTM D5185m	>50	0	<1	<1
Antimony	Copper	ppm	ASTM D5185m	>155	33	43	45
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 1 1 52 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 56 12 Manganese ppm ASTM D5185m 0 0 2 <1 Magnesium ppm ASTM D5185m 950 875 851 740 Calcium ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 <td>Tin</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>10</td> <td>0</td> <td><1</td> <td><1</td>	Tin	ppm	ASTM D5185m	>10	0	<1	<1
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 1 1 52 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 56 12 Manganese ppm ASTM D5185m 0 0 2 <1	Antimony	ppm	ASTM D5185m				0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 1 1 52 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 56 12 Manganese ppm ASTM D5185m 0 0 2 <1	Vanadium	ppm	ASTM D5185m		0	<1	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 56 12 Manganese ppm ASTM D5185m 0 0 2 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 59 56 12 Manganese ppm ASTM D5185m 0 0 2 <1 Magnesium ppm ASTM D5185m 950 875 851 740 Calcium ppm ASTM D5185m 1050 975 1008 1234 Phosphorus ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base	Boron	ppm	ASTM D5185m	2	1	1	52
Manganese ppm ASTM D5185m 0 0 2 <1 Magnesium ppm ASTM D5185m 950 875 851 740 Calcium ppm ASTM D5185m 1050 975 1008 1234 Phosphorus ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 1180 1112 1098 821 Sulfur ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % <	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 950 875 851 740 Calcium ppm ASTM D5185m 1050 975 1008 1234 Phosphorus ppm ASTM D5185m 1050 975 1008 1234 Phosphorus ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 1180 1112 1098 821 Sulfur ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % "ASTM D7624 >20	Molybdenum	ppm	ASTM D5185m	50	59	56	12
Calcium ppm ASTM D5185m 1050 975 1008 1234 Phosphorus ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 1180 1112 1098 821 Sulfur ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION	Manganese	ppm	ASTM D5185m	0	0	2	<1
Phosphorus ppm ASTM D5185m 995 740 792 712 Zinc ppm ASTM D5185m 1180 1112 1098 821 Sulfur ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION *ASTM D7414	Magnesium	ppm	ASTM D5185m	950	875	851	740
Zinc ppm ASTM D5185m 1180 1112 1098 821 Sulfur ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm	Calcium	ppm	ASTM D5185m	1050	975	1008	1234
Sulfur ppm ASTM D5185m 2600 2337 2531 2370 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Phosphorus	ppm	ASTM D5185m	995	740	792	712
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Zinc	ppm	ASTM D5185m	1180	1112	1098	821
Silicon ppm ASTM D5185m >30 10 10 9 Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Sulfur	ppm	ASTM D5185m	2600	2337	2531	2370
Sodium ppm ASTM D5185m >400 0 5 2 Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Silicon	ppm	ASTM D5185m	>30	10	10	9
INFRA-RED	Sodium	ppm	ASTM D5185m	>400	0	5	2
Soot % % *ASTM D7844 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Potassium	ppm	ASTM D5185m	>20	2	1	2
Nitration Abs/cm *ASTM D7624 >20 16.4 18.7 10.7 Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 27.7 34.6 21.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Soot %	%	*ASTM D7844		0.1	0.1	0.1
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Nitration	Abs/cm	*ASTM D7624	>20	16.4	18.7	10.7
Oxidation Abs/.1mm *ASTM D7414 >25 30.1 40.3 16.6	Sulfation	Abs/.1mm	*ASTM D7415	>30	27.7	34.6	21.3
	FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 5.2 4.0 7.6	Oxidation	Abs/.1mm	*ASTM D7414	>25	30.1	40.3	16.6
	Base Number (BN)	mg KOH/g	ASTM D2896		5.2	4.0	7.6



OIL ANALYSIS REPORT

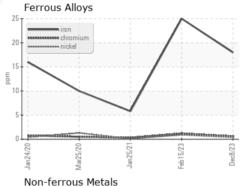


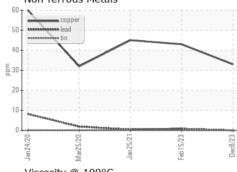


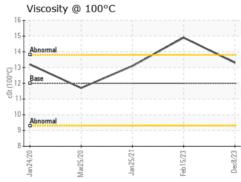
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

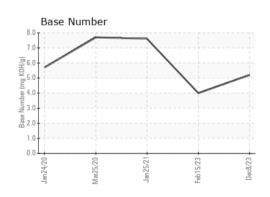
FLUID PROPI	ERHES	method				history2
Visc @ 100°C	cSt	ASTM D445	12.00	13.3	1 4.9	13.1

GRAPHS













Laboratory Sample No.

Lab Number

Unique Number : 10795499

: PCA0091612 : 06040270

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 20 Dec 2023 Diagnosed

: 21 Dec 2023 Diagnostician : Sean Felton

Test Package : FLEET (Additional Tests: FT-IR(Diff))

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)

ICSB370 - Alton 4525 North Alby Road

Godfrey, IL US 62035

Contact: Chad Ingold c.ingold@illinois-central.com

T: (618)466-5400