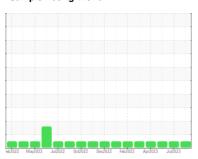


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id 20078 Component

Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

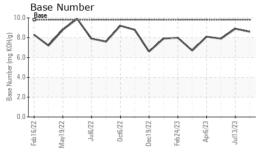
Fluid Condition

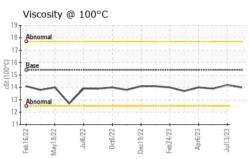
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

				Dec2022 Feb2023 Apr2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0095316	PCA0098091	PCA0098089
Sample Date		Client Info		01 Sep 2023	13 Jul 2023	11 May 2023
Machine Age	hrs	Client Info		9147	8767	8410
Oil Age	hrs	Client Info		380	357	300
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	3	5	7
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	3	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	3	1
Lead	ppm	ASTM D5185m	>40	<1	<1	2
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		<1	0	<1
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	current 1	history1 2	history2 2
	ppm ppm	ASTM D5185m				
Boron	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m	0	1	2	2
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	1 4	2	2
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	1 4 63	2 0 62	2 0 61
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	1 4 63 0	2 0 62 <1	2 0 61 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	1 4 63 0 903	2 0 62 <1 932	2 0 61 <1 1026
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	1 4 63 0 903 1057	2 0 62 <1 932 1048	2 0 61 <1 1026 1158
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	1 4 63 0 903 1057 1024	2 0 62 <1 932 1048 979	2 0 61 <1 1026 1158 978
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	0 0 60 0 1010 1070 1150 1270	1 4 63 0 903 1057 1024 1175	2 0 62 <1 932 1048 979 1220	2 0 61 <1 1026 1158 978 1319
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	1 4 63 0 903 1057 1024 1175 3382 current	2 0 62 <1 932 1048 979 1220 3204 history1	2 0 61 <1 1026 1158 978 1319 3493 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	1 4 63 0 903 1057 1024 1175 3382 current 2	2 0 62 <1 932 1048 979 1220 3204 history1 8 17	2 0 61 <1 1026 1158 978 1319 3493 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	1 4 63 0 903 1057 1024 1175 3382 current	2 0 62 <1 932 1048 979 1220 3204 history1	2 0 61 <1 1026 1158 978 1319 3493 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base	1 4 63 0 903 1057 1024 1175 3382 current 2 2 current	2 0 62 <1 932 1048 979 1220 3204 history1 8 17 2	2 0 61 <1 1026 1158 978 1319 3493 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	1 4 63 0 903 1057 1024 1175 3382 current 2 2	2 0 62 <1 932 1048 979 1220 3204 history1 8 17	2 0 61 <1 1026 1158 978 1319 3493 history2 4 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25	1 4 63 0 903 1057 1024 1175 3382 current 2 2 current	2 0 62 <1 932 1048 979 1220 3204 history1 8 17 2	2 0 61 <1 1026 1158 978 1319 3493 history2 4 8 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D7844	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	1 4 63 0 903 1057 1024 1175 3382 current 2 2 current 0.3	2 0 62 <1 932 1048 979 1220 3204 history1 8 17 2 history1	2 0 61 <1 1026 1158 978 1319 3493 history2 4 8 3 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20	1 4 63 0 903 1057 1024 1175 3382 current 2 2 2 current 0.3 5.9	2 0 62 <1 932 1048 979 1220 3204 history1 8 17 2 history1 0.4 6.6	2 0 61 <1 1026 1158 978 1319 3493 history2 4 8 3 history2 0.4 7.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	0 0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20 >30	1 4 63 0 903 1057 1024 1175 3382 current 2 2 2 current 0.3 5.9 18.2	2 0 62 <1 932 1048 979 1220 3204 history1 8 17 2 history1 0.4 6.6 18.4	2 0 61 <1 1026 1158 978 1319 3493 history2 4 8 3 history2 0.4 7.5 19.0



OIL ANALYSIS REPORT

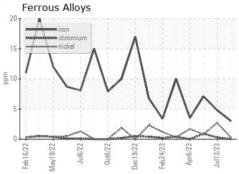


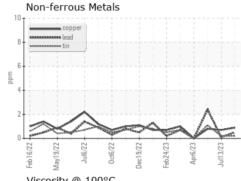


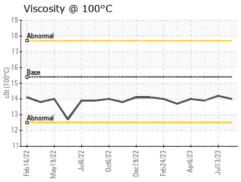
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

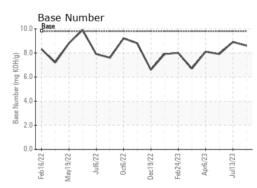
FLUID PROPE	RTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.2	13.9

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : FLEET

: PCA0095316 : 05994987 : 10723347

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 31 Oct 2023 : 01 Nov 2023 Diagnosed Diagnostician : Wes Davis

LRS - BETHEL HEIGHTS (NWA AR)

848 HWY 264 E BETHEL HEIGHTS, AR US 72764

Contact: ROBERT HEATH rheath@Irsrecycles.com T: (479)305-8958

* - 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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