

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id OA1866

Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- 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

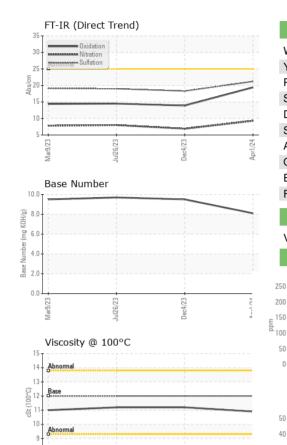
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0120701	PCA0113383	PCA0103031
Sample Date		Client Info		01 Apr 2024	04 Dec 2023	26 Jul 2023
Machine Age	mls	Client Info		87990	83577	79868
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	21	42	27
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	3
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	2	<1	2
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	3	21	8
Barium	ppm	ASTM D5185m	0	0	0	1
Molybdenum	ppm	ASTM D5185m	50	67	63	65
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
	ppin	AGTIM DJ10JIII	0			< 1
Magnesium	ppm	ASTM D5185m	950	1041	872	<1 920
Magnesium Calcium						
U	ppm	ASTM D5185m	950	1041	872 1201 1054	920 1157 1045
Calcium Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m	950 1050	1041 1228 1151 1355	872 1201	920 1157 1045 1233
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995	1041 1228 1151	872 1201 1054	920 1157 1045
Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	950 1050 995 1180 2600 limit/base	1041 1228 1151 1355 4002 current	872 1201 1054 1280 3263 history1	920 1157 1045 1233 3147 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base	1041 1228 1151 1355 4002 current 4	872 1201 1054 1280 3263 history1 5	920 1157 1045 1233 3147 history2 4
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25	1041 1228 1151 1355 4002 current 4 1	872 1201 1054 1280 3263 history1 5 <1	920 1157 1045 1233 3147 history2 4 0
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20	1041 1228 1151 1355 4002 current 4	872 1201 1054 1280 3263 history1 5 <1 2	920 1157 1045 1233 3147 history2 4 0 2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20	1041 1228 1151 1355 4002 current 4 1 2 current	872 1201 1054 1280 3263 history1 5 <1 2 history1	920 1157 1045 1233 3147 history2 4 0 2 2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	1041 1228 1151 1355 4002 current 4 1 2 current 0.7	872 1201 1054 1280 3263 history1 5 <1 2 history1 0.6	920 1157 1045 1233 3147 history2 4 0 2 history2 0.8
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	1041 1228 1151 1355 4002 current 4 1 2 current 0.7 9.3	872 1201 1054 1280 3263 history1 5 <1 2 history1 0.6 6.9	920 1157 1045 1233 3147 history2 4 0 2 history2 0.8 8.0
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	1041 1228 1151 1355 4002 current 4 1 2 current 0.7	872 1201 1054 1280 3263 history1 5 <1 2 history1 0.6	920 1157 1045 1233 3147 history2 4 0 2 history2 0.8
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	1041 1228 1151 1355 4002 current 4 1 2 current 0.7 9.3	872 1201 1054 1280 3263 history1 5 <1 2 history1 0.6 6.9	920 1157 1045 1233 3147 history2 4 0 2 history2 0.8 8.0
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624	950 1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20 >30	1041 1228 1151 1355 4002 current 4 1 2 current 0.7 9.3 21.2	872 1201 1054 1280 3263 history1 5 <1 2 history1 0.6 6.9 18.3	920 1157 1045 1233 3147 history2 4 0 2 history2 0.8 8.0 19.0



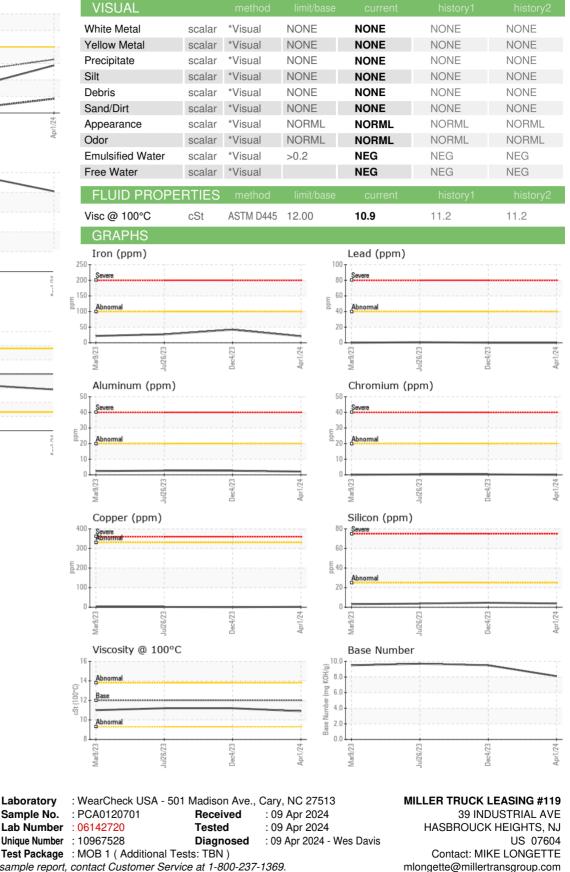
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OIL ANALYSIS REPORT



Dec4/23

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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.

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St (100°C)

Laboratory

Sample No.

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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (201)528-7053

Report Id: MILRUT [WUSCAR] 06142720 (Generated: 04/09/2024 18:37:21) Rev: 1

Certificate 12367

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