

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

VOLVO VNR 2126902 (S/N 4V4WC9EH7MN600466)

Diesel Engine

PETRO CANADA DURON SHP 10W30 (36 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

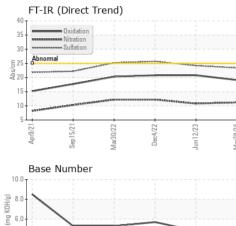
Fluid Condition

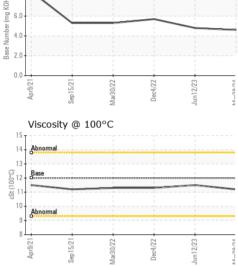
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0094626	PCA0052349	PCA0052356
Sample Date		Client Info		29 Mar 2024	12 Jun 2023	04 Dec 2022
Machine Age	mls	Client Info		194124	160248	129408
Oil Age	mls	Client Info		33876	30840	32222
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<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
		ASTM D5185m	>100		39	44
Iron	ppm			34 <1	39	44
Chromium Nickel	ppm	ASTM D5185m	>20	3	4	I 6
	ppm	ASTM D5185m ASTM D5185m	>2	0		0
Titanium Silver	ppm	ASTM D5185m ASTM D5185m	>2	0 <1	<1 0	<1
Aluminum	ppm	ASTM D5185m	>2	2	5	4
Lead	ppm	ASTM D5185m	>25	2	2	4
	ppm			2	2	2 11
Copper Tin	ppm	ASTM D5185m	>330 >15	2	2	3
Vanadium	ppm	ASTM D5185m	>10	0	2	<1
Cadmium	ppm ppm	ASTM D5185m		0	<1	0
	ppm		limit/baga	-		-
ADDITIVES	ppm	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	2	current 4	history1 0	history2 3
ADDITIVES Boron Barium		method ASTM D5185m ASTM D5185m	2 0	current 4 0	history1 0 0	history2 3 <1
ADDITIVES Boron Barium Molybdenum	ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 4 0 67	history1 0 0 61	history2 3 <1 66
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 4 0 67 1	history1 0 0 61 1	history2 3 <1 66 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 4 0 67 1 920	history1 0 0 61 1 972	history2 3 <1 66 1 990
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 4 0 67 1 920 1083	history1 0 0 61 1 972 1106	history2 3 <1 66 1 990 1161
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	Current 4 0 67 1 920 1083 1007	history1 0 61 1 972 1106 941	history2 3 <1 66 1 990 1161 1021
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 4 0 67 1 920 1083 1007 1245	history1 0 61 1 972 1106 941 1251	history2 3 <1 66 1 990 1161 1021 1355
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	Current 4 0 67 1 920 1083 1007 1245 3109	history1 0 0 61 1 972 1106 941 1251 2916	history2 3 <1 66 1 990 1161 1021 1355 3200
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 4 0 67 1 920 1083 1007 1245	history1 0 61 1 972 1106 941 1251	history2 3 <1 66 1 990 1161 1021 1355
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ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	current 4 0 67 1 920 1083 1007 1245 3109 current 6 4	history1 0 0 61 1 972 1106 941 1251 2916 history1 12 3	history2 3 <1 66 1 990 1161 1021 1355 3200 history2 6 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	current 4 0 67 1 920 1083 1007 1245 3109 current 6	history1 0 0 61 1 972 1106 941 1251 2916 history1 12	history2 3 <1 66 1 990 1161 1021 1355 3200 history2 6
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ADDITIVES 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 TS ppm ppm ppm	method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	current 4 0 67 1 920 1083 1007 1245 3109 current 6 4 3 current 0.7 11.2	history1 0 0 61 1 972 1106 941 1251 2916 history1 12 3 5 history1 0.7 10.8	history2 3 <1 66 1 990 1161 1021 1355 3200 history2 6 2 7 history2 0.8 12.2
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OIL ANALYSIS REPORT





Visc @ 100°C CSL ASTM D445 12.00 11.2 11.5 11.3 CRAPHS Forrous Alloys On-Ferrous Metals Non-Ferrous Metals Viscosity @ 100°C Viscosity @ 100	d)		VISUAL		method				history2	
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Free Water iscalar Visual NEG Neg NEG NEG NEG NEG Neg NEG NEG NEG NEG Neg NEG NEG NEG Neg NEG NEG NEG NEG Neg NEG NEG NEG NEG NEG Neg NEG			Emulsified Water		*Visual	>0.2	NEG	NEG	NEG	
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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: PERWAS [WUSCAR] 06153738 (Generated: 04/23/2024 10:44:21) Rev: 1

Contact/Location: DEREK RYAN - PERWAS

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