

### **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# VOLVO VNL 130 (S/N 4V4NC9EH5NN304343)

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

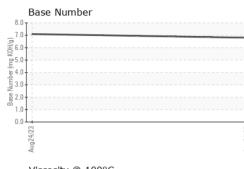
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

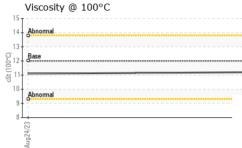
AL)			Aug2023	Aug2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0097545	PCA0097440	
Sample Date		Client Info		24 Aug 2023	24 Aug 2023	
Machine Age	mls	Client Info		388000	388000	
Oil Age	mls	Client Info		28000	28000	
Oil Changed		Client Info		N/A	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	30	28	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>25	5	5	
Lead	ppm	ASTM D5185m	>40	<1	<1	
Copper	ppm	ASTM D5185m	>330	4	3	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	0	
Barium	ppm	ASTM D5185m	0	0	0	
Volybdenum	ppm	ASTM D5185m	50	66	61	
Manganese	ppm	ASTM D5185m	0	<1	<1	
	1. 1					
Vagnesium	ppm	ASTM D5185m	950	973	933	
-		ASTM D5185m ASTM D5185m	950 1050	973 1084	933 1000	
Calcium	ppm					
Calcium Phosphorus	ppm ppm	ASTM D5185m	1050	1084	1000	
Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	1050 995	1084 1068	1000 1000	
Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180	1084 1068 1295	1000 1000 1196	
Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 limit/base	1084 1068 1295 3448	1000 1000 1196 3131	
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1050 995 1180 2600 limit/base	1084 1068 1295 3448 current	1000 1000 1196 3131 history1	
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm tTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	1050 995 1180 2600 limit/base >25	1084 1068 1295 3448 current 6	1000 1000 1196 3131 history1 5	   history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 limit/base >25	1084 1068 1295 3448 current 6 2 3	1000 1000 1196 3131 history1 5 1	   history2 
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 <i>limit/base</i> >25 >20	1084 1068 1295 3448 current 6 2 3	1000 1000 1196 3131 history1 5 1 16	  history2 
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm tTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 limit/base >25 >20 limit/base	1084 1068 1295 3448 current 6 2 3 3 current	1000 1000 1196 3131 history1 5 1 1 16 history1	  history2   history2
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm iTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 limit/base >25 >20 limit/base >3	1084 1068 1295 3448 current 6 2 3 current 0.4	1000 1000 1196 3131 history1 5 1 1 16 history1 0.3	  history2   history2 
Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D51854 ASTM D7844	1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20	1084 1068 1295 3448 <u>current</u> 6 2 3 <u>current</u> 0.4 9.4	1000 1000 1196 3131 <b>history1</b> 5 1 16 <b>history1</b> 0.3 9.2	  history2   history2
Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	1050 995 1180 2600 Imit/base >25 >20 Imit/base >3 >20 >30 Limit/base	1084 1068 1295 3448 <i>current</i> 6 2 3 <i>current</i> 0.4 9.4 19.6	1000 1000 1196 3131 <b>history1</b> 5 1 1 6 <b>history1</b> 0.3 9.2 19.5	  history2   history2  history2

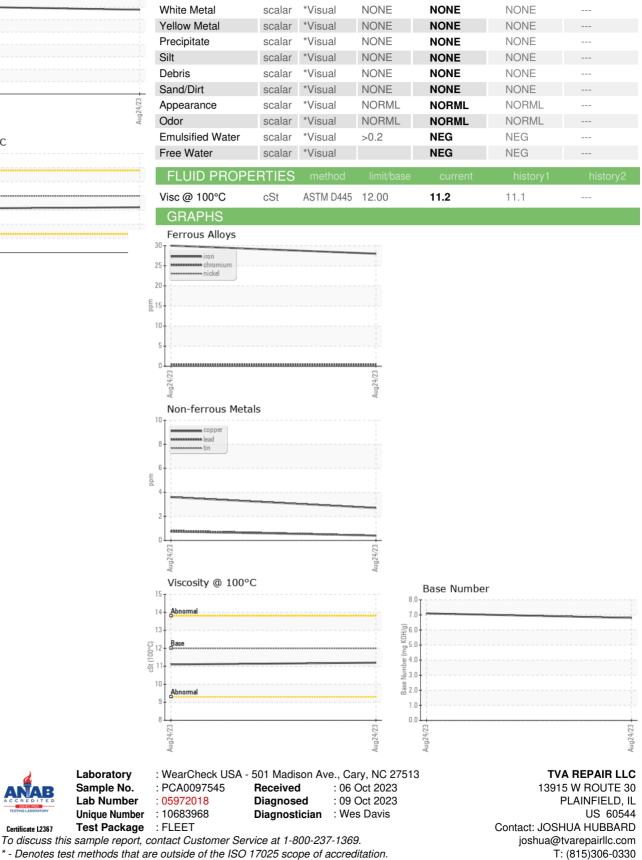


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VISUAL







Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

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