

OIL ANALYSIS REPORT

Sample Rating Trend



Area [69139] WOLVO 4442

Diesel Engine Fluid PETRO CANADA DURON SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

🔺 Wear

Nickel ppm levels are abnormal. Exhaust valve wear is indicated.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0948225		
Sample Date		Client Info		15 Jun 2024		
Machine Age	kms	Client Info		777645		
Oil Age	kms	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATION	J	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	56		
Chromium	ppm	ASTM D5185(m)	>20	2		
Nickel	ppm	ASTM D5185(m)	>2	4 5		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>2	<1		
Aluminum	ppm	ASTM D5185(m)	>25	13		
Lead	ppm	ASTM D5185(m)	>40	2		
Copper	ppm	ASTM D5185(m)	>330	28		
Tin	ppm	ASTM D5185(m)	>15	2		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	1		
Barium	ppm	ASTM D5185(m)	1	<1		
Molybdenum	ppm	ASTM D5185(m)	1	64		
Manganese	ppm	ASTM D5185(m)	1	1		
Magnesium	ppm	ASTM D5185(m)	10	969		
Calcium	ppm	ASTM D5185(m)	2942	1133		
Phosphorus	ppm	ASTM D5185(m)	1102	918		
Zinc	ppm	ASTM D5185(m)	1351	1224		
Sulfur	ppm	ASTM D5185(m)	3903	2100		
	ppm	ASTM D5185(m)		<1		
Lithium						
Lithium CONTAMINANTS		method	limit/base	current	history1	history2
	ppm	method ASTM D5185(m)	limit/base	current 9	history1	history2
	ppm ppm					
CONTAMINANTS Silicon		ASTM D5185(m)		9		
CONTAMINANTS Silicon Sodium	ppm	ASTM D5185(m) ASTM D5185(m)	>25	9 3		
CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>25 >20	9 3 19		
CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	>25 >20 limit/base	9 3 19 current	 history1	 history2



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OIL ANALYSIS REPORT

	FLUID DEGRAD		method	limit/base	current	history1	history2
iron chromium	Oxidation	Abs/.1mm	ASTM D7414*	>25	21.9		
******* nickel	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	VLITE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
	-	scalar	Visual*	NONE	NONE		
1.m15.0.4	Debris	scalar	Visual*	NONE	NONE		
-	Sand/Dirt	scalar	Visual*	NONE	NONE		
IR (Direct Trend)	Appearance	scalar	Visual*	NORML	NORML		
Oxidation	Odor	scalar	Visual*	NORML	NORML		
Suffation	Emulsified Water	scalar	Visual*	>0.2	NEG		
nomal	Free Water	scalar	Visual*		NEG		
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D7279(m)	11.4	11.4		
य प	-		()				
100 E C	Iron (ppm)				Lead (ppm)		
scosity @ 100°C	250 200 Severe			10	Courses.		
	E 150				u		
	Abnormal			E 4	Abnormal		
normal	50 -			- 2	D		
58					54 L 0		24
normal	Jun 15/24			Jun 15/24	Jun 15/24		Jun15/24
	→ Aluminum (ppm)			7	Chromium (p)	7
	50 T			5	от :		
1 L 2)	40 - Severe			- 4	1		
Ē.	E ³⁰ 20			۳ ³	0 - Abnormal		
	10			1			
	o L						
	15/24			Jun 15/24	Jun 15/24		Jun15/24
	Jur			Jur			Jur
	Copper (ppm)				Silicon (ppm)		
	300 -			6	-		
	톱 200			E 4			
	100-			음. ⁴ 2	Autonna		
				2			
	5/24			5/24 -	5/24		5/24 -
	Jun15/24			Jun15/24	Jun15/24		Jun15/24
	Viscosity @ 100°	С			Soot %		
	16 T			6.	Severe		
	ي ¹⁴ Abnormal				7		
	C 14 Abnormal			^{≥e⁴.}	Abnormal		
	³ 10 - Abnormal			-*2.	U +		
	8			0.1			
	Jun 15/24			Jun 15/24	Jun 15/24		Jun15/24
	n			Ju	лſ		Jur
					L 5H9 PERFORI	MANCE EQUIPMEN	
Sample No	. : WC0948225	Recei		3 Jul 2024			ANS AVENUE

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To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Service ? - PER415ETO Page 2 of 2

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