

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 6913124 Component Diesel Engine Fluid NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

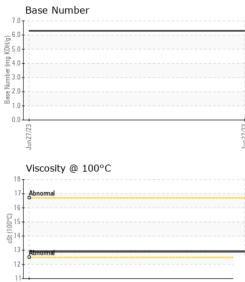
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL05900936		
Sample Date		Client Info		27 Jun 2023		
Machine Age	mls	Client Info		139818		
Oil Age	mls	Client Info		20000		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	19		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m	- 1	<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	4		
Lead	ppm	ASTM D5185m	>40	4		
Copper	ppm	ASTM D5185m	>330	1		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	historv1	history2
ADDITIVES Boron	nnm	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	43	, in the second s	· · · · ·
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	43 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68 <1 705		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68 <1 705 1371		
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	limit/base	43 0 68 <1 705	 	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68 <1 705 1371 798		
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	limit/base	43 0 68 <1 705 1371 798 1028		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68 <1 705 1371 798 1028 3161		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68 <1 705 1371 798 1028 3161 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68 <1 705 1371 798 1028 3161 current 4	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	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 D5185m	limit/base	43 0 68 <1 705 1371 798 1028 3161 current 4 3	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	43 0 68 <1 705 1371 798 1028 3161 current 4 3 5 5	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	43 0 68 <1 705 1371 798 1028 3161 <u>current</u> 4 3 5 <u>current</u> 0.4	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20	43 0 68 <1 705 1371 798 1028 3161 <i>current</i> 4 3 5 <i>current</i> 0.4 12.2	 history1 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20 >3 >20	43 0 68 <1 705 1371 798 1028 3161 <u>current</u> 4 3 5 <u>current</u> 0.4 12.2 24.8	 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >30 >30	43 0 68 <1 705 1371 798 1028 3161 Current 4 3 5 Current 0.4 12.2 24.8 Current	 history1 history1 history1	history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3 >20 >3 >20	43 0 68 <1 705 1371 798 1028 3161 <u>current</u> 4 3 5 <u>current</u> 0.4 12.2 24.8	 history1 history1	 history2 history2 history2



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OIL ANALYSIS REPORT



	VISUAL		method				history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
Jun 27/23	Appearance	scalar	*Visual	NORML	NORML		
Jun	Odor	scalar	*Visual	NORML	NORML		
°C	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPER1	TIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445		12.9		
	GRAPHS						
	Ferrous Alloys						
	Non-ferrous Metal	ls		Jun27/23			
	Viscosity @ 100°C	2			Base Number		
	18 17 Abnormal			7.0	1		
	17 Abnormal			6.0	-		
				(0, 5.0 HOX but 4.0 add 4.0 ad	•		
	(2) 15 - 			Ĕ 4.0			
	ts 14-			9.0 gund	•		
	13 - Abnormal			뽏 2.0			
	12			1.0			
	11			0.0			
	Jun27/23			Jun27/23	Jun27/23		Jun27/23
Laboratory Sample No. Lab Number Unique Number Test Package	: WearCheck USA - 5 : IL05900936 : 05900936 : 10562292	TAMPA IDEALEASE 5951 ORIENT ROAE TAMPA, FL US 33610-9565 Contact: Russ Cool russcook@idealease.com T: (813)626-9285) F: (844)270-1356					

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