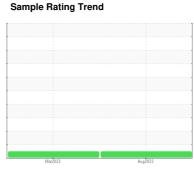


OIL ANALYSIS REPORT



NORMAL



Machine Id **8317510**

Component

Diesel Engine

DIESEL ENGINE OIL SAE 30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

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.

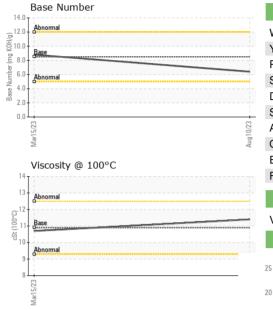
Fluid Condition

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

			Mar2023	Aug2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL05967519	IL05828648	
Sample Date		Client Info		10 Aug 2023	15 Mar 2023	
Machine Age	mls	Client Info		98480	0	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATIO	N	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	21	22	
Chromium	ppm	ASTM D5185m	>20	2	2	
Nickel	ppm	ASTM D5185m	>4	<1	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	<1	0	
Aluminum	ppm	ASTM D5185m		10	16	
Lead	ppm	ASTM D5185m	>40	6	3	
Copper	ppm	ASTM D5185m		4	4	
Tin		ASTM D5185m	>15	2	2	
Vanadium	ppm	ASTM D5185m	>10	<1	0	
Cadmium	ppm	ASTM D5185m			0	
Cadmium	ppm	A9 IIII D3 I03III		0	U	
ADDITIVES		method	limit/base			history2
ADDITIVES		method	iiiiii/base	current	history1	HISTORYZ
Boron	ppm	ASTM D5185m	250	20	38	
	ppm				•	· ·
Boron		ASTM D5185m	250	20	38	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	20 0	38 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	20 0 62	38 0 43	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	20 0 62 1	38 0 43	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	20 0 62 1 318	38 0 43 1 483	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	20 0 62 1 318 1837	38 0 43 1 483 1600	
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 ASTM D5185m	250 10 100 450 3000 1150	20 0 62 1 318 1837 828	38 0 43 1 483 1600 729	
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 ASTM D5185m	250 10 100 450 3000 1150	20 0 62 1 318 1837 828 1035	38 0 43 1 483 1600 729 916	
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 ASTM D5185m	250 10 100 450 3000 1150 1350 4250	20 0 62 1 318 1837 828 1035 2829	38 0 43 1 483 1600 729 916 2419	
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 ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	20 0 62 1 318 1837 828 1035 2829 current	38 0 43 1 483 1600 729 916 2419 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	20 0 62 1 318 1837 828 1035 2829 current	38 0 43 1 483 1600 729 916 2419 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20	20 0 62 1 318 1837 828 1035 2829 current 10 3	38 0 43 1 483 1600 729 916 2419 history1 12	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20	20 0 62 1 318 1837 828 1035 2829 current 10 3 27	38 0 43 1 483 1600 729 916 2419 history1 12 1 41	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5	20 0 62 1 318 1837 828 1035 2829 current 10 3 27 <1.0	38 0 43 1 483 1600 729 916 2419 history1 12 1 41 <1.0	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3	20 0 62 1 318 1837 828 1035 2829 current 10 3 27 <1.0 current 0.4	38 0 43 1 483 1600 729 916 2419 history1 12 1 41 <1.0 history1 0.3	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3 >20	20 0 62 1 318 1837 828 1035 2829 current 10 3 27 <1.0	38 0 43 1 483 1600 729 916 2419 history1 12 1 41 <1.0	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm	ASTM D5185m ASTM D7844 *ASTM D7844	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3 >20	20 0 62 1 318 1837 828 1035 2829 current 10 3 27 <1.0 current 0.4 10.8	38 0 43 1 483 1600 729 916 2419 history1 12 1 41 <1.0 history1 0.3 7.8	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7844	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3 >20 >30	20 0 62 1 318 1837 828 1035 2829 current 10 3 27 <1.0 current 0.4 10.8 22.4 current	38 0 43 1 483 1600 729 916 2419 history1 12 1 41 <1.0 history1 0.3 7.8 22.5 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7624 *ASTM D7624	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5 limit/base >3 >20 >30 limit/base >25	20 0 62 1 318 1837 828 1035 2829 current 10 3 27 <1.0 current 0.4 10.8 22.4	38 0 43 1 483 1600 729 916 2419 history1 12 1 41 <1.0 history1 0.3 7.8 22.5	history2 history2



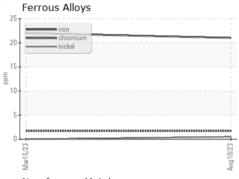
OIL ANALYSIS REPORT

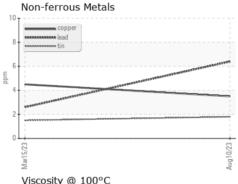


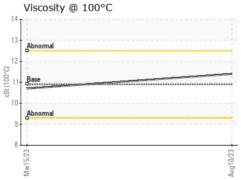
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
	ıEO	اه و مالم مور	1::4/	a	الاستعادا	history O

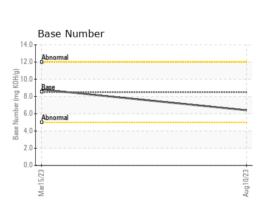
FLUID PROPERTIES		method	limit/base		nistory1	nistory2
Visc @ 100°C	cSt	ASTM D445	10.9	11.4	10.7	

GRAPHS











Laboratory Sample No. Lab Number

Unique Number : 10674070

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : IL05967519 : 05967519

Received Diagnosed

: 03 Oct 2023 : 04 Oct 2023 Diagnostician : Wes Davis

Test Package : FLEET (Additional Tests: FuelDilution)

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. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Contact: RICK MARKS F: (770)300-0614

NORCROSS, GA

US 30071-2808

IDEALEASE-NORCROSS

4571 NORTH BUFORD HWY

Report Id: IDENORGA [WUSCAR] 05967519 (Generated: 10/04/2023 15:18:07) Rev: 1

Contact/Location: RICK MARKS - IDENORGA