

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 6814839 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 40 (--- 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 40. Please confirm. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

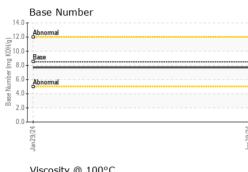
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

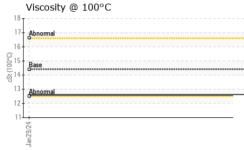
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL06073765		
Sample Date		Client Info		29 Jan 2024		
Machine Age	mls	Client Info		0		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	28		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	7		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	3		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 250	current 3	history1	history2
	ppm ppm					· · · · ·
Boron		ASTM D5185m	250	3		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	3 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	3 0 62		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	3 0 62 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	3 0 62 <1 856		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	3 0 62 <1 856 1190	 	
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	250 10 100 450 3000 1150	3 0 62 <1 856 1190 905	 	
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	250 10 100 450 3000 1150 1350	3 0 62 <1 856 1190 905 1152	 	
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	250 10 100 450 3000 1150 1350 4250	3 0 62 <1 856 1190 905 1152 3326		
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	250 10 100 450 3000 1150 1350 4250	3 0 62 <1 856 1190 905 1152 3326 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 method	250 10 100 450 3000 1150 1350 4250 limit/base >25	3 0 62 <1 856 1190 905 1152 3326 current 7	 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 ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	3 0 62 <1 856 1190 905 1152 3326 current 7 0	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20	3 0 62 <1 856 1190 905 1152 3326 current 7 0 10	 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	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >216 >20 Imit/base	3 0 62 <1 856 1190 905 1152 3326 current 7 0 10 10	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Iimit/base >25 >216 >20 Iimit/base >3	3 0 62 <1 856 1190 905 1152 3326 <u>current</u> 7 0 10 10 <u>current</u>	 history1 history1 history1	 history2 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 ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 imit/base >25 >216 >20 imit/base >3 >20	3 0 62 <1 856 1190 905 1152 3326 <i>current</i> 7 0 10 <i>current</i> 0.7 11.8	 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	250 10 100 450 3000 1150 1350 4250 imit/base >25 >216 >20 imit/base >3 >20 >30	3 0 62 <1 856 1190 905 1152 3326 <u>current</u> 7 0 10 10 <u>current</u> 0.7 11.8 21.4		 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 D7624 *ASTM D7415	250 10 100 450 3000 1150 1350 4250 20 216 >216 >20 >20 imit/base >3 >20 >30	3 0 62 <1 856 1190 905 1152 3326 Current 7 0 10 Current 0.7 11.8 21.4 Current	history1 history1 history1 history1 history1	 history2 history2 history2 history2 history2



OIL ANALYSIS REPORT

VISUAL





		\A/hita Adatal	scalar	*Visual		NONE		
		White Metal	Scalai	Vidual	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		
	9/24	Appearance	scalar	*Visual	NORML	NORML		
	Jan 29/24	Odor	scalar	*Visual	NORML	NORML		
		Emulsified Water	scalar	*Visual	>0.2	NEG		
		Free Water	scalar	*Visual	20.L	NEG		
						NEG		
		FLUID PROPER	TIES	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	14.4	12.6		
		GRAPHS						
		Ferrous Alloys						
		³⁰			1			
		25 - chromium						
		20						
		20						
		10-						
		5+						
		0						
		29/24			2/62			
		Jan 29/24			Jan 29/24			
		-	ls		Jan 29/2			
		Non-ferrous Meta	ls		- Jan 29/2			
		Non-ferrous Meta	ls		Jan29/2			
		Non-ferrous Meta	ls		Jan29/2			
		Non-ferrous Meta	ls		Jan 29/2			
		Non-ferrous Meta	ls		Jan 29/2			
		Non-ferrous Meta	ls		Jan 29/2			
		Non-ferrous Meta	ls		Jan 29/2			
		Non-ferrous Meta	ls		Jan 29/2			
		Non-ferrous Meta						
		Non-ferrous Meta						
		Non-ferrous Meta						
		Non-ferrous Meta						
	, and a	Non-ferrous Meta			Jan29/24	Base Number		
	, and a	Non-ferrous Meta			4762129/29	Abnormal		
		Non-ferrous Meta			42062UEP 14.0	Abnormal		
		Non-ferrous Meta			42062UEP 14.0	Abnormal		
		Non-ferrous Meta			42062UEP 14.0	Abnormal		
		Non-ferrous Meta			42062UEP 14.0	Abnormal		
		Non-ferrous Meta			42062UEP 14.0	Abnormal		
		Non-ferrous Meta			+72/62UEP 14.0 (D)Mpet. (0) (D)H(D) 828 888 84.0	Abnormal Base Abnormal		
		Non-ferrous Meta			14.0 12.0 12.0 12.0 12.0 10.0 10.0 10.0 10	Abnormal Base Abnormal Abnormal		
		Non-ferrous Meta			+72620ar (0,004,000 (0,004,000 (0,004,000 (0,004,000 (0,004,000 (0,000 (0,000 (0,000)	Abnormal Base Abnormal		
		Non-ferrous Meta			14.0 12.0 12.0 12.0 12.0 10.0 10.0 10.0 10	Abnormal Base Abnormal Abnormal		
Sar Lab		Non-ferrous Meta	2	son Ave., Ca d : 30 . ed : 31 .	14.0 12.0 (0,HO)M bell Base Mumber Base Mumber P 14.0 (0,HO)M bell Base 4.0 2.0 +72/62U2 P	Abnormal Base Abnormal	4571 NORTH	E-NORCROS BUFORD HV DRCROSS, C JS 30071-28

* - 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)

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