

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 689 Component **Diesel Engine 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

Metal levels are typical for a new component breaking in.

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.

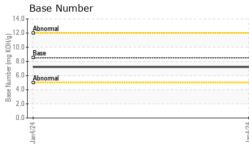
Fluid Condition

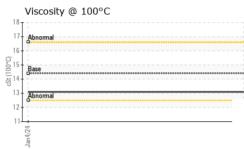
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		IL0026011		
Sample Date		Client Info		04 Jan 2024		
Machine Age	mls	Client Info		56127		
Oil Age	mls	Client Info		35718		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	N	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
	nnm			32		
Iron Chromium	ppm	ASTM D5185m ASTM D5185m	>100	32		
Nickel	ppm		>20	2		
Titanium	ppm	ASTM D5185m ASTM D5185m	>4	0		
Silver	ppm	ASTM D5185m ASTM D5185m	>3	-		
Aluminum	ppm	ASTM D5185m		0 55		
	ppm					
Lead	ppm	ASTM D5185m	>40	0 161		
Copper	ppm	ASTM D5185m		-		
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 34	history1	history2
	ppm ppm					
Boron		ASTM D5185m	250	34		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	34 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	34 0 47		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	34 0 47 2		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	34 0 47 2 531		
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	34 0 47 2 531 1618	 	
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	34 0 47 2 531 1618 833	 	
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	34 0 47 2 531 1618 833 991	 	
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	34 0 47 2 531 1618 833 991 2590		
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	34 0 47 2 531 1618 833 991 2590 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	34 0 47 2 531 1618 833 991 2590 current 9	 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 method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	34 0 47 2 531 1618 833 991 2590 current 9 4	 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	34 0 47 2 531 1618 833 991 2590 current 9 4 94	 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 limit/base >25 >216 >216 >216 >20 limit/base	34 0 47 2 531 1618 833 991 2590 current 9 4 94 94 current	 history1 history1	 history2 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	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >216 >216 >20 limit/base	34 0 47 2 531 1618 833 991 2590 current 9 4 94 94 21.4	 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 iimit/base >25 >216 >216 >20 iimit/base	34 0 47 2 531 1618 833 991 2590 current 9 4 94 94 94 1.4 1.4 10.1	 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	34 0 47 2 531 1618 833 991 2590 current 9 4 94 94 current 1.4 10.1 22.6	 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 D7844 *ASTM D7624 *ASTM D7415	250 10 100 450 3000 1150 1350 4250 iimit/base >25 >216 >20 iimit/base >3 >20 >30	34 0 47 2 531 1618 833 991 2590 current 9 4 94 94 94 1.4 10.1 22.6 current	 history1 history1 history1 history1	 history2 history2 history2 history2



OIL ANALYSIS REPORT





	VISUAL		mathad	limit/booo	ourropt	biotom	biotom/0
			method	limit/base	current	history1	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		
4	Sand/Dirt	scalar	*Visual	NONE	NONE		
Jan4/24	Appearance	scalar	*Visual	NORML	NORML		
-	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water Free Water	scalar	*Visual	>0.2	NEG		
		scalar	*Visual		NEG		
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	14.4	13.1		
	GRAPHS						
	Ferrous Alloys						
	35 iron			1			
	30 - chromium						
	25						
Ę	20						
6	15-						
	10						
	5						
	0						
	Jan4/24			Jan4/24			
				ŗ			
	Non-ferrous Meta	ls					
	160- copper			_			
	140 - tin						
	120-						
ud d	80						
	60						
	40						
	20						
	54 0			24			
	Jan 4,/24			Jan4/24			
	Viscosity @ 100°C	_		~			
	¹⁸ T	• • • • • • • • • • • • •		14.0	Base Number		
	17- Abnormal			14.0	Abnormal		
	16						
ç				H 10.0	Base		
100	Base 3 14			0.8 Ju			
ů,	1			0.0 KOH(0) 8.0 Mumper (mg 8.0 8.0 8.0 8.0 8.0	Abnormal		
	13 - Abnormal			4.0	+		
	12-			2.0			
	11			0.0	4		
	Jan4/24			Jan4/24	Jan4/24		
	-			-			
oratory	: WearCheck USA -				}		D IDEALEAS
ple No.		Recieve		Jan 2024		430	MIDLAND R
Number		Diagnos		Jan 2024			BAY CITY, N
ue Number	: 10822331 : ELEET	Diagnos	ucian : we	s Davis			US 4560



Test Package : FLEET Contact: BILL FLETCHER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. billfletcher@wielandtrucks.com * - 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/Location: BILL FLETCHER - IDESAG

F: (989)790-7911

T: