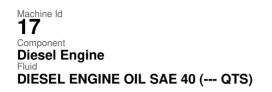


OIL ANALYSIS REPORT

Sample Rating Trend





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

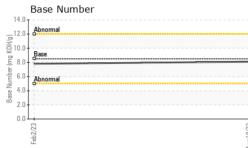
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

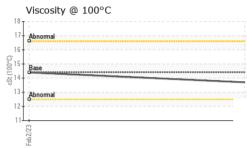
			Feb2023	Aug2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0069395	PCA0069386	
Sample Date		Client Info		19 Aug 2023	02 Feb 2023	
Machine Age	mls	Client Info		0	54900	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	21	11	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	0	<1	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	4	<1	
Lead	ppm	ASTM D5185m	>40	0	2	
Copper	ppm	ASTM D5185m	>330	1	<1	
Tin	ppm	ASTM D5185m	>15	0	<1	
Vanadium	ppm	ASTM D5185m		<1	<1	
Cadmium	ppm	ASTM D5185m		0	<1	
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	<1 history1	 history2
	ppm ppm		limit/base 250	-		
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	250	current 2	history1 16	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	250 10	current 2 0	history1 16 0	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	250 10	current 2 0 55	history1 16 0 81	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	current 2 0 55 <1	history1 16 0 81 <1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	current 2 0 555 <1 948	history1 16 0 81 <1 732	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	current 2 0 55 <1 948 1012	history1 16 0 81 <1 732 1963	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	Current 2 0 55 <1 948 1012 1031	history1 16 0 81 <1 732 1963 886	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350	current 2 0 55 <1 948 1012 1031 1256	history1 16 0 81 <11 732 1963 886 1207	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250	Current 2 0 55 <1 948 1012 1031 1256 3019	history1 16 0 81 <11 732 1963 886 1207 3515	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method 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	current 2 0 555 <1 948 1012 1031 1256 3019 current	history1 16 0 81 <1 732 1963 886 1207 3515 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m 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	current 2 0 555 <1 948 1012 1031 1256 3019 current 3	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	current 2 0 555 <1 948 1012 1031 1256 3019 current 3 1	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5 2	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20	current 2 0 555 <1 948 1012 1031 1256 3019 current 3 1 2	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5 2 <1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >216 >216 >20 Imit/base >3	current 2 0 55 <1 948 1012 1031 1256 3019 current 3 1 2 current	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5 2 <1	history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >216 >216 >20 Imit/base >3	current 2 0 55 <1 948 1012 1031 1256 3019 current 3 1 2 current 0.7	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5 2 <1	history2 history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	method 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	current 2 0 555 <1 948 1012 1031 1256 3019 current 3 1 2 current 3 1 2 current 0.7 9.7	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5 2 <1	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	250 10 100 450 3000 1150 1350 4250 imit/base >25 >216 >20 imit/base >3 >20 >30	current 2 0 55 <1 948 1012 1031 1256 3019 current 3 1 2 current 0.7 9.7 21.2	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5 2 <1 0.6 8.6 20.7	history2 history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 method	250 10 100 450 3000 1150 1350 4250 imit/base >25 >216 >20 imit/base >3 >20 >30 imit/base	current 2 0 55 <1 948 1012 1031 1256 3019 current 3 1 2 current 0.7 9.7 21.2 current	history1 16 0 81 <1 732 1963 886 1207 3515 history1 5 2 <1 0.6 8.6 20.7 history1	history2 history2 history2 history2 history2 history2 history2 history2 history2 history2 history2 history2



OIL ANALYSIS REPORT

VISUAL





White Metal						
wille weta	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	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	14.4	
GRAPHS						
Ferrous Alloys						
iron						
20 - nickel						
15-						
10-						
5-						
Feb 2/23			Aug19/23			
Feb			ug1			
			A			
Non-ferrous Meta	s		A			
Non-ferrous Meta	s		A			
¹⁰ T	s		A			
10 copper	s		A			
10 8 6	ls		A			
10 copper	ls		<			
10 8 6 4	ls		<			
10 8 6	S					
10 8 6 4 2 0						
10 8 6 4 2 0		De verstang en twitten				
10 8 6 4 2 0 CC CC CC CC CC CC CC CC CC						
10 8 6 4 2 0		с. 	Aug19/23	Base Number		
Viscosity @ 100°C			cZ/61 Dny 14.0	т:		
Viscosity @ 100°C			E20610my 14.0 12.0	Base Number		
Viscosity @ 100°C			E20610my 14.0 12.0	т:		
Viscosity @ 100°C			E20610my 14.0 12.0	Abnormal Base		
10 8 6 4 2 0 Viscosity @ 100°C 18 17 Abnomal 16 16 4 2 0 10 10 10 10 10 10 10 10 10			E20610my 14.0 12.0	Abnormal		
Viscosity @ 100°C			14.0 12.0 (0)(HO) Mou Buy Bage 4.0	Abnormal Base		
Viscosity @ 100°C			14.0 12.0 (0,10.0 0,000000	Abnormal Base		
10 8 10 10 10 10 10 10 10 10 10 10			14.0 12.0 (0)(10,0)(10,0) 12.0 (0)(10,0	Abnormal Base Abnormal		
Viscosity @ 100°C			14.0 12.0 (0)(10,0)(10,0) 12.0 (0)(10,0	Abnormal Base		
10 8 6 4 2 0 Viscosity @ 100°C 14 17 Abnormal 16 14 13 Abnormal 12 11 12 11 12 12 12 12 12 12			14.0 12.0 (B)(HO)X Builting Bu	Abnormal Base Abnormal		
Viscosity @ 100°C	501 Madis	son Ave., Ca	14.0 12.0 10/HOX Bul Jaquing 8.0 2.0 E2/61 Bink 4.0 2.0 0.0 E2/61 Bink 4.0 2.0 0.0	Abnormal Base Abnormal		
Viscosity @ 100°C	501 Madis	son Ave., Ca I : 22	14.0 12.0 (0)Hoy Bu 30 12.0 (0)Hoy Bu 30 12.0 (0)Hoy Bu 30 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	Abnormal Base Abnormal	32611 NOR	THFIELD BL
Viscosity @ 100°C	501 Madis	son Ave., Ca I : 22 ad : 26	14.0 12.0 10/HOX Bul Jaquing 8.0 2.0 E2/61 Bink 4.0 2.0 0.0 E2/61 Bink 4.0 2.0 0.0	Abnormal Base Abnormal	32611 NOR	JAMIN BUS II THFIELD BLY RTHFIELD, N US 550



 Certificate L2367
 Test Package
 : FLEET

 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)

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