

OIL ANALYSIS REPORT





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

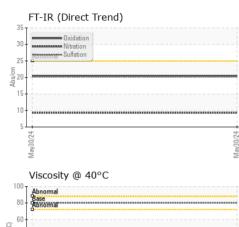
Fluid Condition

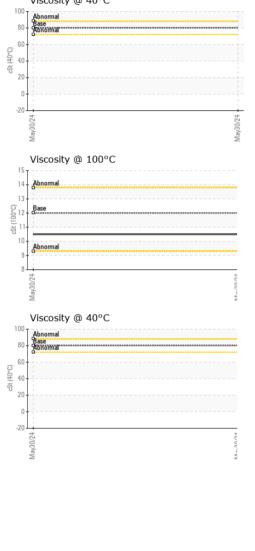
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0124608		
Sample Date		Client Info		30 May 2024		
Machine Age	mls	Client Info		236747		
Oil Age	mls	Client Info		4891		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	7		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	2		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	0		
Tin	ppm	ASTM D5185m	>15	0		
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	current 4	history1	history2
	ppm ppm				history1 	history2
Boron		ASTM D5185m	2	4		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	4 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	4 0 53		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	4 0 53 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	4 0 53 <1 911 966 1024		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	4 0 53 <1 911 966 1024 1169	 	
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	2 0 50 0 950 1050 995	4 0 53 <1 911 966 1024	 	
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	2 0 50 950 1050 995 1180	4 0 53 <1 911 966 1024 1169	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 53 <1 911 966 1024 1169 3458		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	2 0 50 950 1050 995 1180 2600	4 0 53 <1 911 966 1024 1169 3458 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 950 1050 995 1180 2600	4 0 53 <1 911 966 1024 1169 3458 current 6	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	4 0 53 <1 911 966 1024 1169 3458 <u>current</u> 6 2 <1 <1	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >25	4 0 53 <1 911 966 1024 1169 3458 current 6 2 2 <1	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >25 >20	4 0 53 <1 911 966 1024 1169 3458 <i>current</i> 6 2 <1 <i>current</i> 0.2 9.3	 history1 history1	 history2 history2
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	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	4 0 53 <1 911 966 1024 1169 3458 <u>current</u> 6 2 <1 current 0.2	 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	4 0 53 <1 911 966 1024 1169 3458 <i>current</i> 6 2 <1 <i>current</i> 0.2 9.3	 history1 history1 	 history2 history2 history2
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 ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20	4 0 53 <1 911 966 1024 1169 3458 <u>current</u> 6 2 <1 <u>current</u> 0.2 9.3 20.2	 history1 history1 history1	 history2 history2 history2



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VISUAL		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		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	10.5		
GRAPHS						
Ferrous Alloys						
°L						
iron chromium						
nickel						
3-						
+						
2						
) <u>L</u> ;	*******					
			/24			
May30/24			May30/24			
			2			
Non-ferrous Metals						
copper						
tin						
6						
4						
2						
			30/24			
May30/24			May30/24			
May30/24			May30/24	De ee Neverlei		
^{+2/02/24} Viscosity @ 100°C				Base Number		
Viscosity @ 100°C			8.0	Base Number		
Viscosity @ 100°C			8.0 7.0	Base Number		
Viscosity @ 100°C			8.0 7.0	Base Number		
Viscosity @ 100°C			8.0 7.0	Base Number		
Viscosity @ 100°C			8.0 7.0	Base Number		
Viscosity @ 100°C			8.0 7.0	Base Number		
Viscosity @ 100°C			8.0 7.0	Base Number		
Viscosity @ 100°C			8.0 - 7.0 - (0)(6.0 - UX) 5.0 - UX) 5.0 - July 3.0 - egg 2.0 -	Base Number		
Viscosity @ 100°C			8.0 - 7.0 - (b)(6.0 - 0) 5.0 - 0) 5.0 - 00 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	Base Number		
Viscosity @ 100°C			8.0 7.0 (PLOS.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
Viscosity @ 100°C			8.0 7.0 (PLOS.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
Viscosity @ 100°C			8.0 7.0 (Pio 6.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Base Number		
Viscosity @ 100°C			8.0 7.0 (PLOS.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
Proceeding and the second seco			8.0 7.0 ()()()()()()()()()()()()()()()()()()()			
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Viscosity @ 100°C	Madison Recei Tester	ved : 02	8.0 7.0 ()()()()()()()()()()()()()()()()()()()			SPECIALIS 114 PA-60 ANSFIELD, F

 Certificate 12367
 Test Package
 : FLEET (Additional Tests: KV40)

 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)

Laboratory Sample No. Lab Number Unique Number

Contact/Location: TARA MUIRHEAD - GASMAN

T:

F:

Contact: TARA MUIRHEAD

tara.muirhead@gfsinc.net