

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id Rel232562 Component Diesel Engine Fluid {not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. 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.

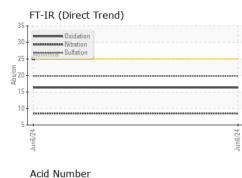
Fluid Condition

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

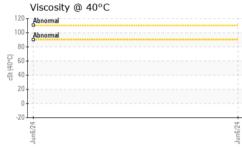
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0122600		
Sample Date		Client Info		06 Jun 2024		
Machine Age	hrs	Client Info		2400		
Oil Age	hrs	Client Info		2400		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	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		ASTM D5185m	>100	15		
Chromium	ppm	ASTM D5185m	>20	15 <1		
Nickel	ppm	ASTM D5185m	>20	<1		
Titanium	ppm	ASTM D5185m	~4	<1		
Silver	ppm	ASTM D5185m	>3	<1		
Aluminum	ppm	ASTM D5185m	>3	7		
Lead	ppm	ASTM D5185m	>20	، <1		
	ppm	ASTM D5185m		<1		
Copper Tin	ppm	ASTM D5185m	>330 >15	<1		
Vanadium	ppm	ASTM D5185m	>15	0		
	ppm			U		
Codmuum	nnm	ACTM DE125m		-1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	 history1	history2
	ppm ppm		limit/base			
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 9	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 9 0	history1 	history2
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 9 0 62	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 9 0 62 <1 1025 1106	history1 	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 9 0 62 <1 1025 1106 1069	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m	limit/base	current 9 0 62 <1 1025 1106	history1	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		current 9 0 62 <1 1025 1106 1069	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	limit/base	9 0 62 <1 1025 1106 1316 3192	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m		current 9 0 62 <1 1025 1106 1069 1316 3192 current 4	history1	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	limit/base	9 0 62 <1 1025 1106 1316 3192	history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	limit/base >25 >20	current 9 0 62 <1 1025 1106 1069 1316 3192 current 4 3 16	history1 history1	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 TS ppm ppm	method ASTM D5185m	limit/base >25 >20 limit/base	current 9 0 62 <1 1025 1106 1069 1316 3192 current 4 3 16 current	history1 history1	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 TS ppm ppm	method ASTM D5185m	limit/base >25 >20 limit/base >3	current 9 0 62 <1 1025 1106 1069 1316 3192 current 4 3 16 current 0.3	history1	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	limit/base >25 >20 limit/base >3 >20	current 9 0 62 <1 1025 1106 1069 1316 3192 current 4 3 16 current 0.3 8.5	history1 history1 history1 history1 history1	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 TS ppm ppm	method ASTM D5185m	limit/base >25 >20 limit/base >3	current 9 0 62 <1 1025 1106 1069 1316 3192 current 4 3 16 current 0.3	history1 history1 history1 history1	history2 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 ppm	method ASTM D5185m	limit/base >25 >20 limit/base >3 >20	current 9 0 62 <1 1025 1106 1069 1316 3192 current 4 3 16 current 0.3 8.5	history1 history1 history1	history2 history2 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 ppm	method ASTM D5185m ASTM D5185m	Imit/base >25 >20 Imit/base >3 >20 >3 >20 >30	eurrent 9 0 62 <1 1025 1106 1069 1316 3192 current 4 3 16 current 0.3 8.5 19.8	history1 history1 history1	history2

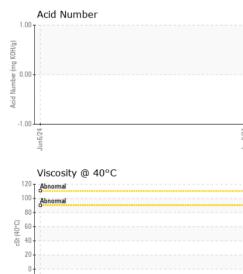


OIL ANALYSIS REPORT









-20

VISUAL	metł	od limit/base	e current	history1	history
White Metal	scalar *Visua	I NONE	NONE		
Yellow Metal	scalar *Visua		NONE		
Precipitate	scalar *Visua		NONE		
Silt	scalar *Visua		NONE		
Debris Sand/Dirt	scalar *Visua scalar *Visua		NONE		
Appearance	scalar *Visua scalar *Visua		NORML		
Odor	scalar *Visua		NORML		
Emulsified Water	scalar *Visua		NEG		
Free Water	scalar *Visua		NEG		
FLUID PROP	ERTIES meth	od limit/base	current	history1	history
Visc @ 100°C	cSt ASTM	D445	13.8		
GRAPHS					
Iron (ppm)		1	Lead (ppm)		
250 Severe			80 Severe		
200			60 -		
E 150 100 - Abnormal		ШШ	40 Abnormal		
50-			20		
0					
Jun 6,24		Jun6/24 -	Jun6/24		
Aluminum (ppm)		Chromium (p	nm)	
⁵⁰ T	,		⁵⁰ T	·pm,	
40 - Severe			40 - Severe		
a 20 Abnormal		E d	30- Abnormal		
10			10		
Jun6/24		Jun6/24 -	Jun6/24		
nn		nn	Jun		
Copper (ppm)			Silicon (ppm)		
400 Severe			80 Severe		
300-			60		
툍 200 -		dd	40 - Abnormal		
100-			20 - Abnormal		
0			0		
Jun6/24		Jun6/24	Jun6/24		
ے Viscosity @ 100	°C	7	⊸ Base Numbei	r	
18 Abnormal			D.0 T		
		a koh	8.0 -		
16		per (ji	6.0		
경 12 - Abnormal		Nur Nur	4.0		
10			0.0		
Jun6/24		Jun6/24 -	Jun6/24		
Jur		Jur	Jur		
: WearCheck USA - 5	O1 Madison Avo	Conv NC 27512		LIMM - Sho	n 401 - Nor
: PCA0122600	Received	: 14 Jun 2024		186 South Wa	p 401 - Nor shington St
: 06210373	Tested	: 18 Jun 2024			Norton,
: 11083237	Diagnosed	: 18 Jun 2024 - Do	on Baldridge	-	US 02
: MOB 2 (Additional					ontact: P Col

- Certificate 12367Test Package: MOB 2 (Additional Tests: KV40, TAN Man)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)

Т:

F:

pcohen@win-waste.com