

# **OIL ANALYSIS REPORT**

## Plant US1 Greenville Machine Id MAF4 - Mill Component

Gearbox Fluid SHELL OMALA 460 (--- GAL)

#### 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Rating Trend

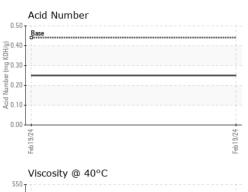


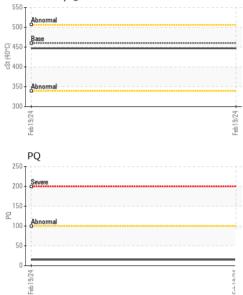
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		TLC0001538		
Sample Date		Client Info		19 Feb 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		15		
Iron	ppm	ASTM D5185m	>200	24		
Chromium	ppm	ASTM D5185m	>15	0		
Nickel	ppm	ASTM D5185m	>15	<1		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	<1		
Lead	ppm	ASTM D5185m	>100	0		
Copper	ppm	ASTM D5185m	>200	<1		
Tin	ppm	ASTM D5185m	>25	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6.2	10		
Barium	ppm	ASTM D5185m	0.0	26		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m		1		
Magnesium	ppm	ASTM D5185m	0	1		
Calcium	ppm	ASTM D5185m	0.0	3		
Phosphorus	ppm	ASTM D5185m	290	235		
Zinc	ppm	ASTM D5185m	3.8	62		
Sulfur	ppm	ASTM D5185m	8167	15394		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	3		
Sodium	ppm	ASTM D5185m		1		
Potassium	ppm	ASTM D5185m	>20	2		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.44	0.25		



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VISUAL





	VISUAL		method	limit/base	current	nistory i	nistory2
	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		
Feb19/24	Appearance	scalar	*Visual	NORML	NORML		
Feb	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 @ 40°C	cSt	ASTM D445	460	447		
	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
		0	memou	IIIIII/Dase		Thistory	THSTOLYZ
Feb19/24	Color					no image	no image
	Bottom					no image	no image
	GRAPHS				DO		
	Ferrous Alloys			220	PQ		
	20 - iron			200	Severe		
A CL D	E 15 10			180			
C.4.10	<sup>C</sup> 10			160			
	Feb 19/24			Feb 19/24	1		
	 Non-ferrous Meta	ls		100	- Abnormal		
	<sup>10</sup> T			80			
	8 - copper			60			
	E 6						
	<u> </u>			40			
	2						
	74 0			0 724	4		1
	е Feb 19/24			Feb19/24	Feb19/24		
	<sup>™</sup> Viscosity @ 40°C			_			L
	550 T :			0.50	Acid Number		
	500 - Abnormal			( <sup>0.50</sup> ∭H0 0.40	Base		
	9 450 - Base	*****	*****	Ĕ 0.30	-		
	C 450 + Base 5 400 +			·			
	350 - Abnormal						
	300						-
	Feb 19/24			Feb19/24	Feb 19/24		
	-Be-			Feb	Feb		
		1 Madisor	n Ave., Cary			N TIRE-GREENVILI	
Unique Number	: WearCheck USA - 50 : TLC0001538 r : 06098558 r : 10896788 e : PLANT	Receiv Testec Diagno	:26	3 Feb 2024 3 Feb 2024 Feb 2024 - Don			Greenville, S US 2960
Sample No. Lab Number Unique Number Test Package	: TLC0001538 r : 06098558 r : 10896788	Receiv Testec Diagno	1 : 26 osed : 26	6 Feb 2024 Feb 2024 - Don	Baldridge		Greenville, S US 2960 licolas Jackso

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