

OIL ANALYSIS REPORT

Plant US1 Greenville Machine Id BD-5 - Mill Component

Gearbox Fluid SHELL OMALA 460 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

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.

Fiz223

Sample Rating Trend

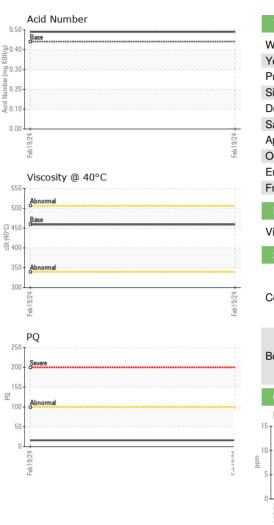


NORMAL

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		TLC0001477		
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	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		16		
Iron	ppm	ASTM D5185m	>200	11		
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	7		
Barium	ppm	ASTM D5185m	0.0	0		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m		1		
Magnesium	ppm	ASTM D5185m	0	<1		
Calcium	ppm	ASTM D5185m	0.0	2		
Phosphorus	ppm	ASTM D5185m	290	157		
Zinc	ppm	ASTM D5185m	3.8	107		
Sulfur	ppm	ASTM D5185m	8167	14263		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	1		
Sodium	ppm	ASTM D5185m		<1		
Potassium	ppm	ASTM D5185m	>20	<1		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.44	0.49		



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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		
Feb 19/24	Appearance	scalar	*Visual	NORML	NORML		
Feb	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPERT	IES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	460	459		
	SAMPLE IMAGES	5	method	limit/base	e current	history1	history2
Feb19/24	Color					no image	no image
	Bottom					no image	no image
	GRAPHS						
	Ferrous Alloys				PQ		
	15 iron 1			2	²⁰ T		
ę	10			2	100 - Severe		
C/ 1 0 / 1	E d.			1	80-		
C. P.	5			1	60		
	0				40 -		
	Feb 19/24			9/24			
	Feb			Laka	20 - Abnormal		
	Non-ferrous Metals	5		1			
	10 copper				80		
	0 - Internet lead				60 -		
					40		
	2				20-		
					0		
	Feb 19/24			Feb19/24	0		200
	Feb			Feb	Feb 19/24		9 0 1 1
	Viscosity @ 40°C				Acid Number		
	550 Abnormal			(B)			
1	500			0 KOH	40		
	(2) 450			0 u	30 -		
i i				Acid Number (mg K0H/g)	20		
	350 Abnormal			Acid	10		
	19/24				.00		
	Feb 19			Feb19/24	Feb 19/24		
Laboratory Sample No. Lab Number Unique Number Test Package	: 10896807 : PLANT	Recei Teste Diagr	ived : 20 id : 20 nosed : 20	3 Feb 2024 5 Feb 2024 5 Feb 2024 -	ELIN TIRE-GREENVILLE US 1 JN DOC 1401 ANTIOCH CHURCH ROA Greenville, S US 2960 Contact: Nicolas Jackso		
discuss this sample report, Denotes test methods that a	contact Customer Servie	7025 sco	pe of accred	litation.	n rule (JCGM 10	nicolas.jackson(06:2012)	@michelin.cor T F