

OIL ANALYSIS REPORT

Plant US1 Greenville Machine Id BD-1 - Plastifier

Gearbox Fluid SHELL OMALA 320 (--- 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

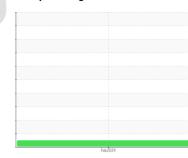
All component wear rates are normal.

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.





NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		TLC0001468		
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	J	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		32		
Iron	ppm	ASTM D5185m	>200	75		
Chromium	ppm	ASTM D5185m	>15	<1		
Nickel	ppm	ASTM D5185m	>15	2		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	1		
Lead	ppm	ASTM D5185m	>100	0		
Copper	ppm	ASTM D5185m	>200	5		
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	5.5	<1		
Barium	ppm	ASTM D5185m	0.4	0		
Molybdenum	ppm	ASTM D5185m	0.5	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	23	3		
Calcium	ppm	ASTM D5185m	13	50		
Phosphorus	ppm	ASTM D5185m	450	303		
Zinc	ppm	ASTM D5185m	9.9	15		
Sulfur	ppm	ASTM D5185m	8181	10807		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	7		
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		0.51		

Sample Rating Trend



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.60							history2
1.40	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
).36 +	Precipitate	scalar	*Visual	NONE	NONE		
.24	Silt	scalar	*Visual	NONE	NONE		
1.12	Debris	scalar	*Visual	NONE	NONE		
0.00	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
Febl	Odor	scalar	*Visual	NORML	NORML		
Viscosity @ 40°C	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
340	FLUID PROPER	RTIES	method	limit/base	current	history1	history2
320 - Base	Visc @ 40°C	cSt	ASTM D445	320	303		
300 -	SAMPLE IMAGE	ES	method	limit/base	current	history1	history2
280	F7/file					no image	no image
250 PQ 200 - Severe	Bottom					no image	no image
150	GRAPHS						
	Ferrous Alloys				PQ		
50-	80			220			
	60 - chromium			200	Severe		
Feb 19/24	E 40			180			
a.	20			160			
	0						
	Feb 19/24			3/24			
	Feb1				Abnormal		
	Non-ferrous Met	als		100	Abnormal		
	10 copper			80	•		
	8 - Reasonable ad			60	•		
				40			
	2			20			
	Feb 19/24			Feb19/24	3/24		A C G
	Feb			Feb	Feb 19/24		E.4.10.74
	Viscosity @ 40°C	2			Acid Number		
	360 Abnormal			。 第10.60 第10.48	T		
	340 Base			HO .48			
	© 320 - Base ↔ ↔ ↔ 300 -			y bi 0.36 age 0.24 Pi 0.02 Pi 0.02 Pi 0.02 Pi 0.02			
				- @ 0.24			
	280 Abnormal 260			F 0.12	1		
				42/6			No.
	Feb 19/24			Feb19/24	Feb 19/24		1-1-10.04
TESTING LABORATORY Unique Numl	-	Recei Teste Diagr	ived : 23 d : 26	3 Feb 2024 3 Feb 2024 3 Feb 2024 - W	140 Ves Davis	Contact: N	