

OIL ANALYSIS REPORT

Plant US1 Greenville Machine Id BD-2 - Extruder

Component 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.

F#2024

Sample Rating Trend



NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		TLC0001465			
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	۷	method	limit/base	current	history1	history2	
Water		WC Method	>0.2	NEG			
WEAR METALS		method	limit/base	current	history1	history2	
PQ		ASTM D8184		48			
Iron	ppm	ASTM D5185m	>200	114			
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	5.5	18			
Barium	ppm	ASTM D5185m	0.4	0			
Molybdenum	ppm	ASTM D5185m	0.5	<1			
Manganese	ppm	ASTM D5185m		2			
Magnesium	ppm	ASTM D5185m	23	4			
Calcium	ppm	ASTM D5185m	13	10			
Phosphorus	ppm	ASTM D5185m	450	244			
Zinc	ppm	ASTM D5185m	9.9	79			
Sulfur	ppm	ASTM D5185m	8181	13746			
CONTAMINANTS		method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	<1			
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		0.76			



0.80 0.70

(B/HOX Bu) and (B/HOX

V 90.20 0.10 0.00 Feb19/24

360-

340

- 055 cSt (40°C) Base

> 280-Abnormal

260. Feb19/24

PQ 250

Severe 200-150 D

Abnormal . 100-50 0 Feb19/24

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id Number	VISUAL		method				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		
Ee.	Odor	scalar	*Visual	NORML	NORML		
cosity @ 40°C	Emulsified Water	scalar	*Visual	>0.2	NEG		
normal	Free Water	scalar	*Visual		NEG		
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
3	Visc @ 40°C	cSt	ASTM D445	320	318		
	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
omal		.0	method	innin base			motoryz
Feb19/24	Color				A	no image	no image
18	Bottom					no image	no image
lemnor	GRAPHS Ferrous Alloys			220	Severe		
2	50 1 1 1 1 1 1 1 1 1 1 1 1 1	ıls		160 44 47 47 47 47 47 47 47 47 47 47 47 47	Abnormal		
	tin tin tin tin tin tin			80 60 40 20 40 40 20 40 60 60 90			Gol 10/24
	ੱਭ Viscosity @ 40°C			诺			143
	360 340 (200) 320 43 300 280 260 260			138.0 (0) 130.0 (14) 130.0 (14).0 (14).0 (14).0 (14).0 (14).0 (14).0 (14).0 (14).0 (14).			Cert 10/04
Source management of the second	r : <mark>06098589</mark> r : 10896819	Recei Teste	ived : 23 d : 26	, NC 27513 3 Feb 2024 3 Feb 2024 Feb 2024 - W	1	IN TIRE-GREENVILI 401 ANTIOCH CI	