

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

EXTRUDER-043 (S/N 280/379/010)

Component

Gearbox

SHELL OMALA S2 G 320 (20 GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

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

Sample Number Client Info WC0705510 WC0518153 WC0474321 Sample Date Client Info 14 Mar 2024 16 Feb 2021 25 Sep 2021 Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Changed hrs Client Info N/A N/A N/A N/A Sample Status NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL WEAR METALS method Imitivaluse current history history PQ ASTM D8184 13			Jan2019 Ma	2019 Jun2019 Sep2019	Mar2020 Jun2020 Sep2020 Feb20	121 Mar2024	
Sample Date Client Info 14 Mar 2024 16 Feb 2021 25 Sep 2020 Machine Age hrs Client Info 0 0 0 0 Oil Age hrs Client Info 0 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status NORMAL NORMAL NORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2 PQ ASTM D5185m >200 23 8 5 Chromium ppm ASTM D5185m >15 0 <1	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		WC0705510	WC0518153	WC0474327
Dil Age	Sample Date		Client Info		14 Mar 2024	16 Feb 2021	25 Sep 2020
Cilient Info	Machine Age	hrs	Client Info		0	0	0
NORMAL NORMAL NORMAL NORMAL NORMAL	Oil Age	hrs	Client Info		0	0	0
WEAR METALS method limit/base current history1 history2 PQ ASTM D81844 13 Iron ppm ASTM D5185m >200 23 8 5 Chromium ppm ASTM D5185m >15 0 0 0 Nickel ppm ASTM D5185m >15 0 0 0 Silver ppm ASTM D5185m >10 0 0 0 Aluminum ppm ASTM D5185m >25 <1	Oil Changed		Client Info		N/A	N/A	N/A
PQ	Sample Status				NORMAL	NORMAL	NORMAL
	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >15 0 <1 <1 Nickel ppm ASTM D5185m >15 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m 25 <1 0 <1 <1 Aluminum ppm ASTM D5185m >25 <1 0 <1 <1 Lead ppm ASTM D5185m >20 0 <1 <1 <1 Copper ppm ASTM D5185m >200 0 <1 <1 <1 Copper ppm ASTM D5185m >200 0 <1 <1 <1 Lead ppm ASTM D5185m >200 0 <1 <1 <1 Copper ppm ASTM D5185m >20 0 <0 0 0 Antimony ppm ASTM D5185m 0 0 0 0 0 <td>PQ</td> <td></td> <td>ASTM D8184</td> <td></td> <td>13</td> <td></td> <td></td>	PQ		ASTM D8184		13		
Nickel	Iron	ppm	ASTM D5185m	>200	23	8	5
Titanium	Chromium	ppm	ASTM D5185m	>15	0	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>15	0	0	0
Aluminum ppm ASTM D5185m > 25	Titanium	ppm	ASTM D5185m		0	0	0
Lead	Silver	ppm	ASTM D5185m		0	<1	<1
Copper ppm ASTM D5185m >200 0 <1 <1 Tin ppm ASTM D5185m >25 0 0 0 Antimony ppm ASTM D5185m >5 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5.5 6 13 13 Barium ppm ASTM D5185m 0.4 0 0 0 Molybdenum ppm ASTM D5185m 0.5 0 0 0 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 9.9 0 23	Aluminum	ppm	ASTM D5185m	>25	<1	0	<1
Tin	Lead	ppm	ASTM D5185m	>100	0	<1	<1
Antimony ppm ASTM D5185m >5 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5.5 6 13 13 Barium ppm ASTM D5185m 0.4 0 0 0 Molybdenum ppm ASTM D5185m 0.5 0 0 0 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032	Copper	ppm	ASTM D5185m	>200	0	<1	<1
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5.5 6 13 13 Barium ppm ASTM D5185m 0.4 0 0 0 Molybdenum ppm ASTM D5185m 0.5 0 0 0 Manganese ppm ASTM D5185m 23 0 0 0 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m >50 5 10 9 <tr< td=""><td>Tin</td><td>ppm</td><td>ASTM D5185m</td><td>>25</td><td>0</td><td>0</td><td>0</td></tr<>	Tin	ppm	ASTM D5185m	>25	0	0	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5.5 6 13 13 Barium ppm ASTM D5185m 0.4 0 0 0 Molybdenum ppm ASTM D5185m 0.5 0 0 0 Manganese ppm ASTM D5185m 23 0 0 0 Magnesium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 <td>Antimony</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>5</td> <td></td> <td>0</td> <td>0</td>	Antimony	ppm	ASTM D5185m	>5		0	0
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5.5 6 13 13 Barium ppm ASTM D5185m 0.4 0 0 0 Molybdenum ppm ASTM D5185m 0.5 0 0 0 Manganese ppm ASTM D5185m 23 0 0 0 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 <td>Vanadium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>0</td> <td>0</td> <td>0</td>	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 5.5 6 13 13 Barium ppm ASTM D5185m 0.4 0 0 0 Molybdenum ppm ASTM D5185m 0.5 0 0 0 Manganese ppm ASTM D5185m 23 0 0 0 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m >20 2	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0.4 0 0 0 Molybdenum ppm ASTM D5185m 0.5 0 0 0 Manganese ppm ASTM D5185m 23 0 0 0 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m >20 2 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0.5 0 0 0 Manganese ppm ASTM D5185m <1 <1 <1 <1 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m >20 2 0 <1 Potassium ppm ASTM D6304 >0.2 NEG NEG NEG	Boron	ppm	ASTM D5185m	5.5	6	13	13
Manganese ppm ASTM D5185m <1 <1 <1 Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m	0.4	0	0	0
Magnesium ppm ASTM D5185m 23 0 0 0 Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 Water % ASTM D6304 >0.2 NEG NEG NEG	Molybdenum	ppm	ASTM D5185m	0.5	0	0	0
Calcium ppm ASTM D5185m 13 7 9 1 Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1 0 0 Potassium ppm ASTM D6304 >0.2 NEG NEG Water % ASTM D6304 >0.2 NEG NEG	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 450 243 212 203 Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 Water % ASTM D6304 >0.2 NEG NEG NEG	Magnesium	ppm	ASTM D5185m	23	0	0	0
Zinc ppm ASTM D5185m 9.9 0 23 21 Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 Water % ASTM D6304 >0.2 NEG NEG NEG	Calcium	ppm	ASTM D5185m	13	7	9	1
Sulfur ppm ASTM D5185m 8181 12032 8637 9126 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1	Phosphorus	ppm	ASTM D5185m	450	243	212	203
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1	Zinc	ppm	ASTM D5185m	9.9	0	23	21
Silicon ppm ASTM D5185m >50 5 10 9 Sodium ppm ASTM D5185m <1 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 Water % ASTM D6304 >0.2 NEG NEG NEG	Sulfur	ppm	ASTM D5185m	8181	12032	8637	9126
Sodium ppm ASTM D5185m <1 0 0 Potassium ppm ASTM D5185m >20 2 0 <1 Water % ASTM D6304 >0.2 NEG NEG NEG	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 0 <1 Water % ASTM D6304 >0.2 NEG NEG NEG		ppm		>50			-
Water % ASTM D6304 >0.2 NEG NEG NEG	Sodium	ppm	ASTM D5185m			0	0
	Potassium	ppm	ASTM D5185m	>20	2	0	<1
FLUID DEGRADATION method limit/base current history1 history2	Water	%	ASTM D6304	>0.2	NEG	NEG	NEG
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2

0.541

0.47

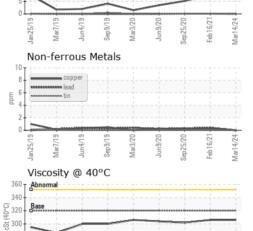
Acid Number (AN) mg KOH/g ASTM D8045

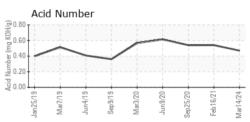
0.540



OIL ANALYSIS REPORT











Certificate L2367

Laboratory Sample No. Lab Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

: 06121669 Unique Number: 10930502 Test Package : PLANT

280

260

: WC0705510

Tested Diagnosed

Received : 18 Mar 2024 : 21 Mar 2024

: 21 Mar 2024 - Jonathan Hester

Mar14/24 Feb16/21

> **PRINSCO - FRESNO** 2839 S CHERRY AVE FRESNO, CA

US 93706

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

302

Contact: FRANCISCO MONTES francisco.montes@prinsco.com

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)

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F: