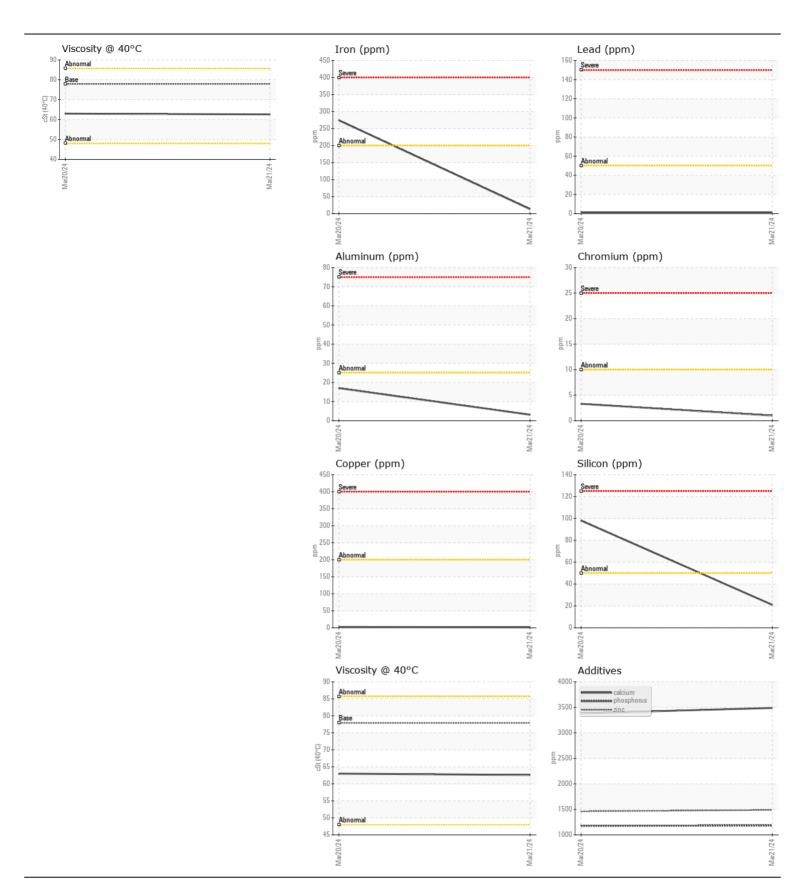
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL **NORMAL NORMAL**

Machine Id C0020A
Component
Gearbox

Sample Number Client Info DC0033221 DC0033222 Compose Client Info Sample Number Client Info Client Info O Not ZNA	SAE 80 (GAL)							
Sample Date	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Specified Nowers 1 min		Sample Number		Client Info		DC0033221	DC0033222	
Please specify the component make and model with your next sample, Oil Age hrs Client Info O O O O O O O O O	specified, however, a fluid match indicates that this fluid is (GENERIC) SAE 80. Please confirm.	Sample Date		Client Info		21 Mar 2024	20 Mar 2024	
Oil Age hrs Cilent Info O O		Machine Age	hrs	Client Info		0	0	
Colic Changed Cilient Info Not Changed Not Chan		Oil Age	hrs	Client Info		0	0	
Filter Changed Sample Status		Filter Age	hrs	Client Info		0	0	
Normal		Oil Changed		Client Info		Not Changd	Not Changd	
Iron		Filter Changed		Client Info		Not Changd	Not Changd	
All component wear rates are normal. Chromium ppm ASTM D5168m >10 1 1 2 Nickel ppm ASTM D5168m >10 <1 1 2 Silver ppm ASTM D5168m >10 <1 2 Silver ppm ASTM D5168m >0 0 0 0 Aluminum ppm ASTM D5168m >0 0 0 0 Aluminum ppm ASTM D5168m >0 0 0 0 0 Aluminum ppm ASTM D5168m >0 <1 <1 0 0 0 0 0 0 0 0 0 Aluminum ppm ASTM D5168m >0 <1 <1 <1 0 0 0 0 0 0 0 0 0		Sample Status				NORMAL	ABNORMAL	
Nickel ppm ASTIM DS185m >10 <1 1	WEAR	Iron	ppm	ASTM D5185m	>200	13	<u>^</u> 274	
Nickel ppm ASTM D5185m 10 <1 1	All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	1	3	
Silver		Nickel	ppm	ASTM D5185m	>10	<1	1	
Aluminum ppm ASTM D5185m >25 3		Titanium	ppm	ASTM D5185m		<1	2	
Lead		Silver	ppm	ASTM D5185m		0	0	
Copper		Aluminum	ppm	ASTM D5185m	>25	3	<u>▲</u> 17	
Tin		Lead	ppm	ASTM D5185m	>50	<1	<1	
Vanadium ppm ASTM D5185m <1 <1		Copper	ppm	ASTM D5185m	>200	2	2	
White Metal Scalar Visual NONE NO		Tin	ppm	ASTM D5185m	>10	1	<1	
Yellow Metal scalar *Visual NONE N		Vanadium	ppm	ASTM D5185m		<1	<1	
Silicon ppm ASTM D5185m >50 21		White Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium ppm ASTM D5185m >20 13 16		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium ppm ASTM D5185m >20 13 16	CONTAMINATION	Silicon	ppm	ASTM D5185m	>50	21	4 98	
Water		Potassium	ppm	ASTM D5185m	>20	13	16	
Debris Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NORML N		Water		WC Method	>0.2	NEG	NEG	
Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE NONE NONE NORML NORML		Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance Scalar *Visual NORML NORML NORML Odor Scalar *Visual NORML NORML		Debris	scalar	*Visual	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Water scalar *Visual >0.2 NEG NEG		Appearance	scalar	*Visual	NORML	NORML	NORML	
Sodium ppm ASTM D5185m 6 6		Odor	scalar	*Visual	NORML	NORML	NORML	
Boron ppm ASTM D5185m 109 106		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Barium ppm ASTM D5185m 7 7 Molybdenum ppm ASTM D5185m <-1 <1 Manganese ppm ASTM D5185m 2 4 Magnesium ppm ASTM D5185m 16 17 Calcium ppm ASTM D5185m 3487 3383 Phosphorus ppm ASTM D5185m 1183 1177 Zinc ppm ASTM D5185m 1487 1459 Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0	FLUID CONDITION	Sodium	ppm	ASTM D5185m		6	6	
Barium ppm ASTM D5185m 7 7 Molybdenum ppm ASTM D5185m <1 <1 Manganese ppm ASTM D5185m 2 4 Magnesium ppm ASTM D5185m 16 17 Calcium ppm ASTM D5185m 3487 3383 Phosphorus ppm ASTM D5185m 1183 1177 Zinc ppm ASTM D5185m 1487 1459 Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Boron	ppm	ASTM D5185m		109	106	
Manganese ppm ASTM D5185m 2 4 Magnesium ppm ASTM D5185m 16 17 Calcium ppm ASTM D5185m 3487 3383 Phosphorus ppm ASTM D5185m 1183 1177 Zinc ppm ASTM D5185m 1487 1459 Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Barium	ppm	ASTM D5185m		7	7	
Magnesium ppm ASTM D5185m 16 17 Calcium ppm ASTM D5185m 3487 3383 Phosphorus ppm ASTM D5185m 1183 1177 Zinc ppm ASTM D5185m 1487 1459 Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Molybdenum	ppm	ASTM D5185m		<1	<1	
Calcium ppm ASTM D5185m 3487 3383 Phosphorus ppm ASTM D5185m 1183 1177 Zinc ppm ASTM D5185m 1487 1459 Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Manganese	ppm	ASTM D5185m		2	4	
Phosphorus ppm ASTM D5185m 1183 1177 Zinc ppm ASTM D5185m 1487 1459 Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Magnesium	ppm	ASTM D5185m		16	17	
Zinc ppm ASTM D5185m 1487 1459 Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Calcium	ppm	ASTM D5185m		3487	3383	
Sulfur ppm ASTM D5185m 9401 11932 Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Phosphorus	ppm	ASTM D5185m		1183	1177	
Visc @ 40°C cSt ASTM D445 77.9 62.6 63.0		Zinc	ppm	ASTM D5185m		1487	1459	
			ppm	ASTM D5185m		9401	11932	
		Visc @ 40°C	cSt					





Certificate L2367

Laboratory Sample No.

: DC0033221 Lab Number : 06149107 Unique Number : 10979185 Test Package : MOB 1

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Apr 2024 **Tested** : 16 Apr 2024

Diagnosed : 16 Apr 2024 - Wes Davis

11089 LEADBETTER ROAD ASHLAND, VA US 23005

CRANEWORKS INC - MID-ATLANTIC

Contact: JASON WILDE jcwilde@vacraneworks.com T:

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)

F: