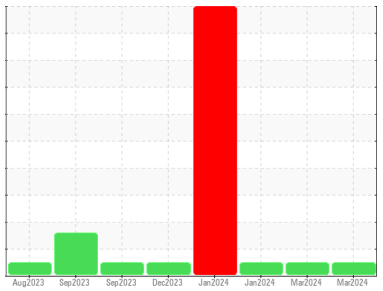
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
STOCK PREP
Machine Id
57-1000 STK PREP PULPER
Component
Gear Reducer
Fluid
SHELL MORLINA S4 B 220 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. (Customer Sample Comment: Heat exchanger changed)

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PE0001548**	PE0001597	PE0001478
Sample Date		Client Info		**25 Mar 2024**	06 Mar 2024	30 Jan 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Filtered**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**11**	14	18
Iron	ppm	ASTM D5185m	>150	**4**	<1	0
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>10	**0**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**2**	0	<1
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**5**	7	3
Tin	ppm	ASTM D5185m	>10	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**<1**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m		**2**	0	4
Calcium	ppm	ASTM D5185m		**54**	43	54
Phosphorus	ppm	ASTM D5185m		**574**	468	581
Zinc	ppm	ASTM D5185m		**733**	624	775
Sulfur	ppm	ASTM D5185m		**5090**	4572	4864

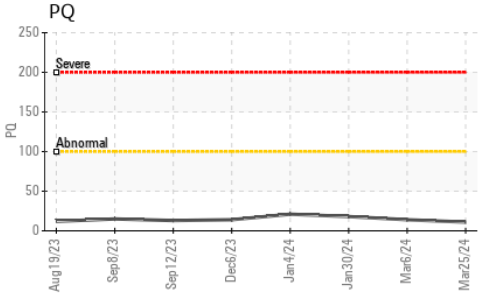
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**2**	1	2
Sodium	ppm	ASTM D5185m		**3**	5	4
Potassium	ppm	ASTM D5185m	>20	**1**	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**4236**	13779	5370
Particles >6µm		ASTM D7647	>5000	**1231**	4250	953
Particles >14µm		ASTM D7647	>640	**92**	321	32
Particles >21µm		ASTM D7647	>160	**16**	66	5
Particles >38µm		ASTM D7647	>40	**0**	2	0
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**19/17/14**	21/19/16	20/17/12

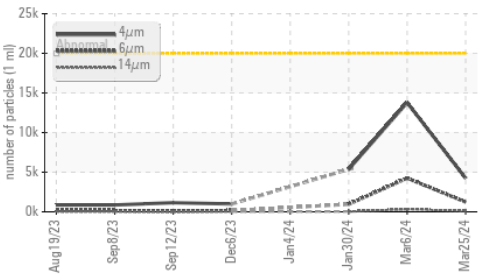
OIL ANALYSIS REPORT

PetroCard MORE THAN JUST FUEL.

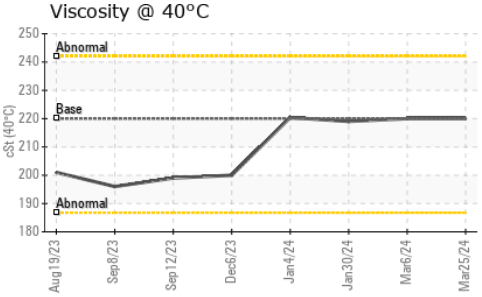
PQ



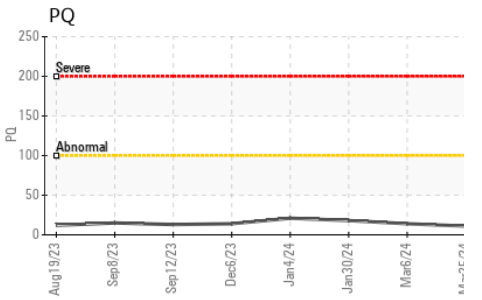
Particle Trend



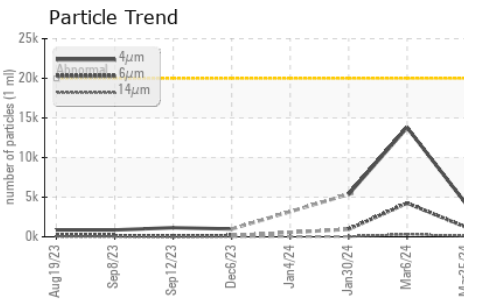
Viscosity @ 40°C



PQ



Particle Trend



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.67**	0.77	0.66

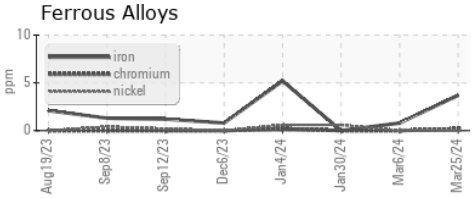
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	**220**	220	219

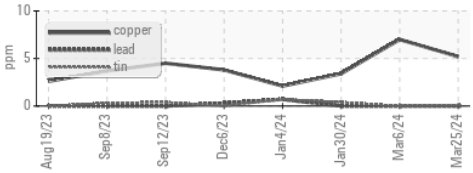
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

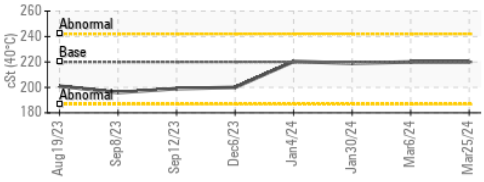
Ferrous Alloys



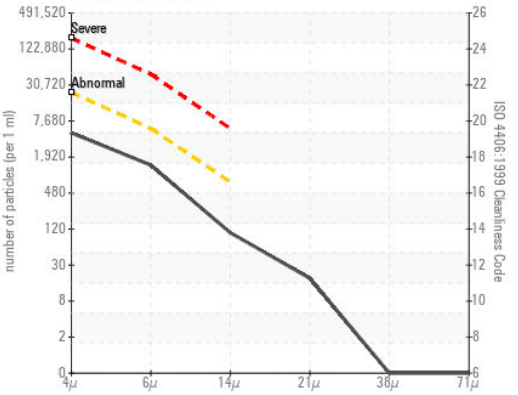
Non-ferrous Metals



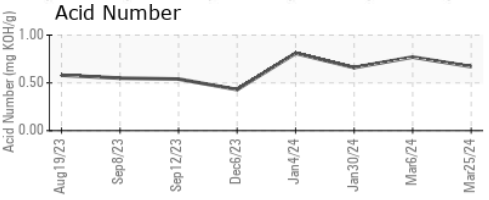
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0001548
Lab Number : 06142168
Unique Number : 10966976
Test Package : PLANT (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

Received : 08 Apr 2024
Tested : 09 Apr 2024
Diagnosed : 11 Apr 2024 - Don Baldridge

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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Report Id: MCKPOR [WUSCAR] 06142168 (Generated: 04/11/2024 23:41:38) Rev: 1

Submitted By: DUANE DENOTTA