MAR II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
17A02D02 - Anchor Windlass Power Pack
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX MV 32 (260 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Copper ppm levels are noted. All other component wear rates are normal.

CONTAMINATION

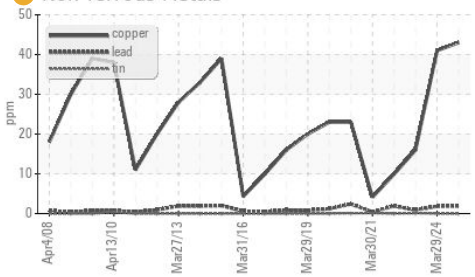
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

FLUID CONDITION

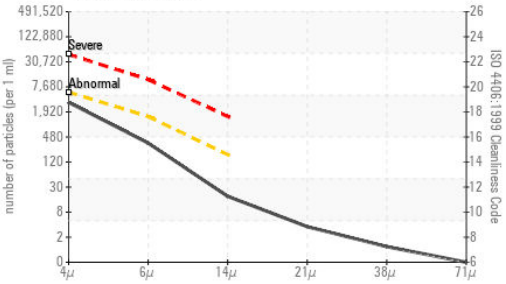
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0839653	WC0747563	WC0747567
Sample Date		Client Info		13 Apr 2024	29 Mar 2024	01 Apr 2023
Machine Age	hrs	Client Info		0	0	1469
Oil Age	hrs	Client Info		0	0	76
Filter Age	hrs	Client Info		0	0	21
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ATTENTION	ATTENTION	NORMAL
Iron	ppm	ASTM D5185(m)	>20	<1	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>10	0	0	<1
Lead	ppm	ASTM D5185(m)	>20	2	2	<1
Copper	ppm	ASTM D5185(m)	>20	43	41	16
Tin	ppm	ASTM D5185(m)	>10	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>15	0	0	<1
Potassium	ppm	ASTM D5185(m)	>20	0	0	0
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	2846	9974	1863
Particles >6µm		ASTM D7647	>1300	301	2016	468
Particles >14µm		ASTM D7647	>160	16	147	35
Particles >21µm		ASTM D7647	>40	3	42	7
Particles >38µm		ASTM D7647	>10	1	3	0
Particles >71µm		ASTM D7647	>3	0	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/15/11	20/18/14	18/16/12
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	.2%	NEG
Sodium	ppm	ASTM D5185(m)		0	<1	<1
Boron	ppm	ASTM D5185(m)	0	<1	0	0
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	0	<1	<1
Calcium	ppm	ASTM D5185(m)	50	32	30	53
Phosphorus	ppm	ASTM D5185(m)	330	294	294	328
Zinc	ppm	ASTM D5185(m)	430	354	359	376
Sulfur	ppm	ASTM D5185(m)	760	730	733	792
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.32	0.32	0.39
Visc @ 40°C	cSt	ASTM D7279(m)	31.9	31.4	31.6	31.7

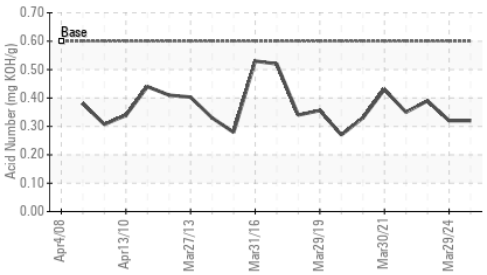
Non-ferrous Metals



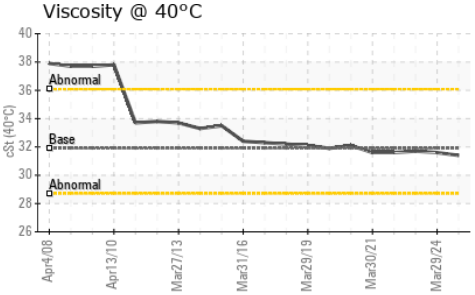
Particle Count



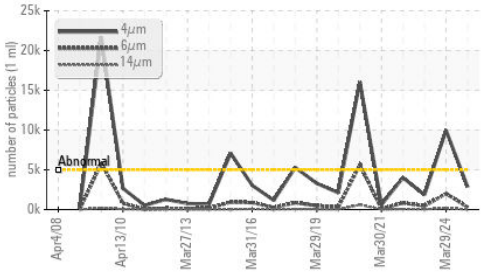
Acid Number



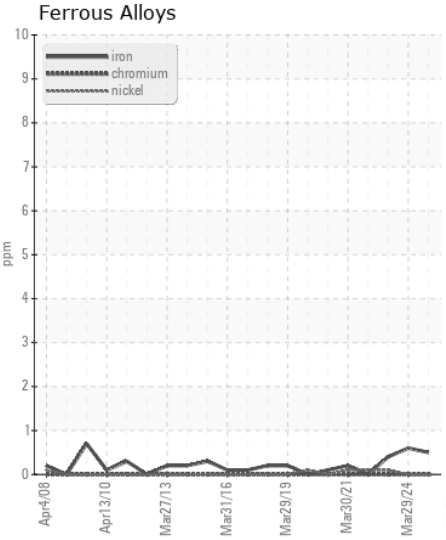
Viscosity @ 40°C



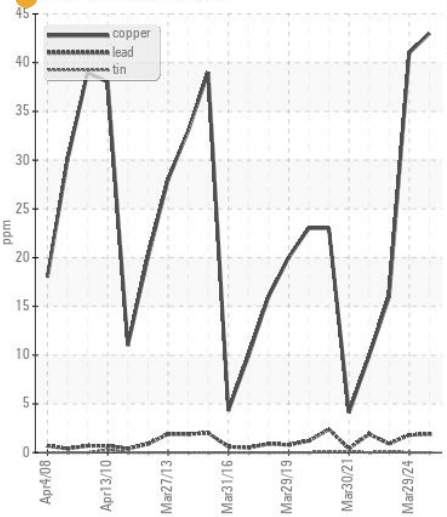
Particle Trend



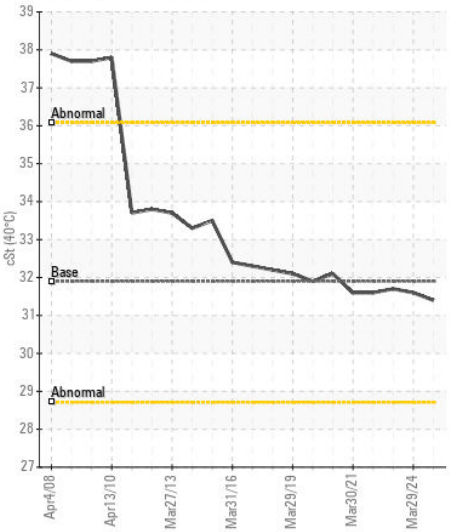
Ferrous Alloys



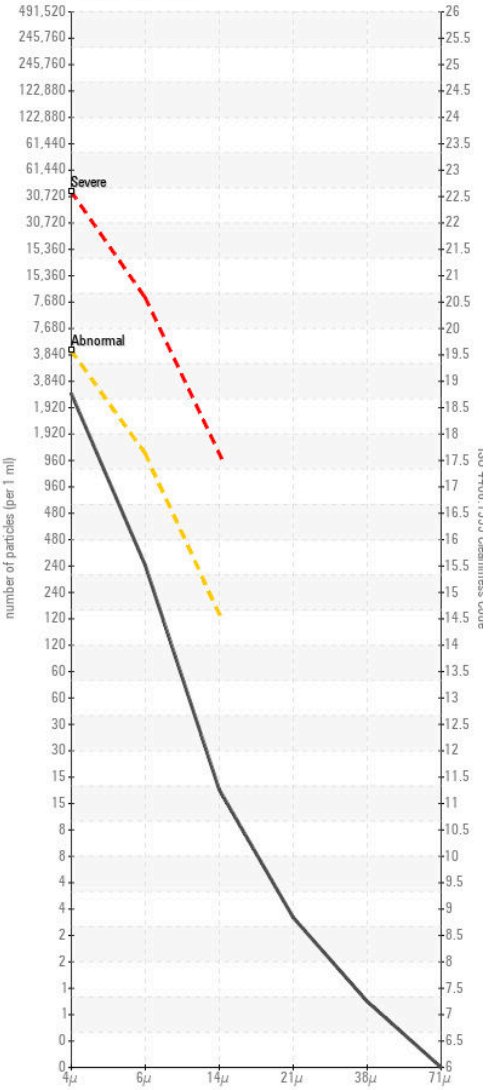
Non-ferrous Metals



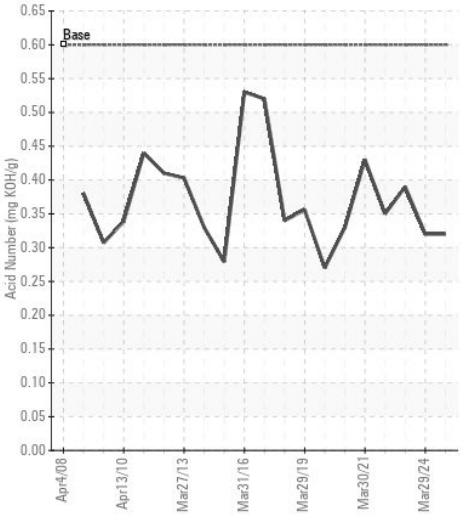
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0839653
Lab Number : 02631153
Unique Number : 5772306
Test Package : MAR 2

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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