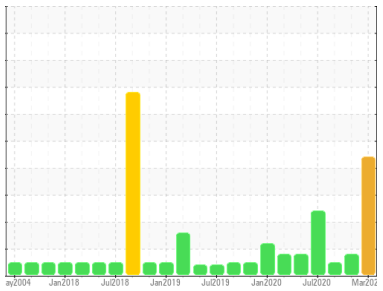
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
Plate Mill/166 Hot Mill
Machine Id
LEVELLER HYD (PLS014) (S/N 1000001191)
Component
Hydraulic System
Fluid
HOUGHTON HOUGHTO-SAFE 620 (--- GAL)

DIAGNOSIS

Recommendation

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The reserve alkalinity of this fluid is lower than acceptable. The water concentration level is higher than acceptable for this fluid. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0813611**	WC0496425	WC0494794
Sample Date		Client Info		**08 Mar 2024**	23 Jan 2021	25 Sep 2020
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**0**	<1	0
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>20	**0**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	**0**	0	0
Lead	ppm	ASTM D5185(m)	>20	**0**	0	<1
Copper	ppm	ASTM D5185(m)	>20	**0**	<1	<1
Tin	ppm	ASTM D5185(m)	>20	**0**	<1	0
Antimony	ppm	ASTM D5185(m)		**0**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**0**	<1	<1
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	<1	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**0**	<1	0
Calcium	ppm	ASTM D5185(m)		**0**	35	19
Phosphorus	ppm	ASTM D5185(m)		**2**	273	345
Zinc	ppm	ASTM D5185(m)		**0**	318	157
Sulfur	ppm	ASTM D5185(m)		**55**	625	432
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**0**	<1	0
Sodium	ppm	ASTM D5185(m)		**22**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**11**	<1	<1
Water	%	ASTM D6304*	>43.5	▲ **41.5**	---	---
ppm Water	ppm	ASTM D6304*	>435000	▲ **415000**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>640	● **803**	▲ 14244	521
Particles >6µm		ASTM D7647	>160	● **193**	● 1715	150
Particles >14µm		ASTM D7647	>20	**20**	51	26
Particles >21µm		ASTM D7647	>4	● **8**	10	7
Particles >38µm		ASTM D7647	>3	**5**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>16/14/11	● **17/15/11**	▲ 21/18/13	16/14/12

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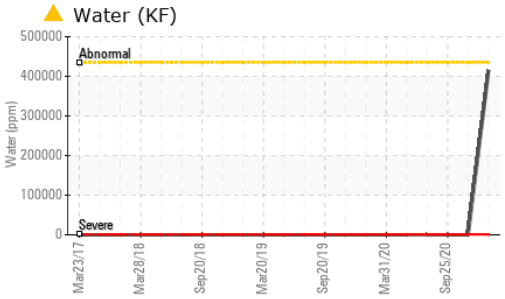
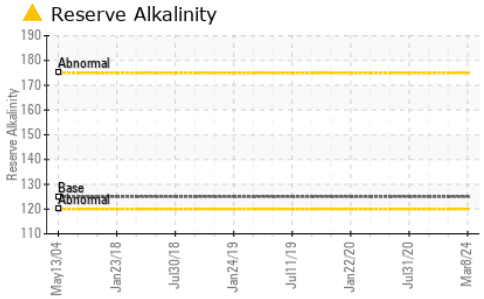
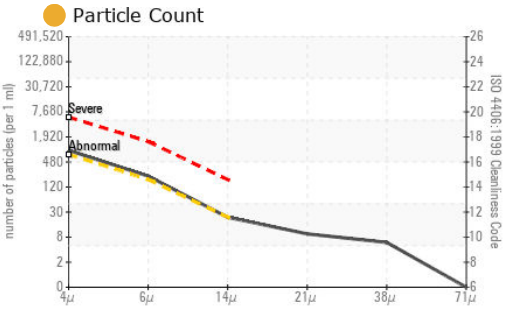
Water (KF)



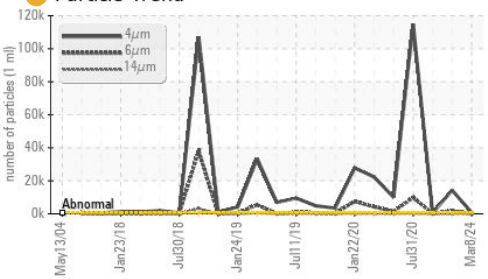
Reserve Alkalinity



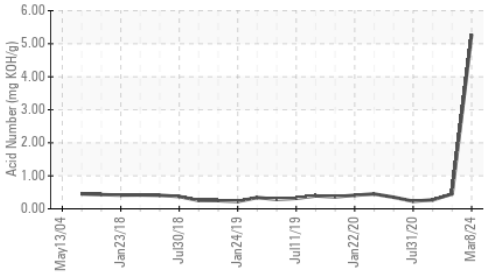
Particle Count



Particle Trend



Acid Number



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**5.28**	0.45	0.27
Alkiline Reserve (Oils)	ml KOH/g	ASTM D1121*	125	▲ **115**	---	---

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	**FRGLY**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>43.5	**>10%**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287*		**9.17**	---	---
Visc @ 40°C	cSt	ASTM D7279(m)		**42.6**	45.6	46.0

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0813611
Lab Number : 02621607
Unique Number : 5746726
Test Package : IND 2 (Additional Tests: KF, pH, ReserveAlk, TAN Man)
Received : 12 Mar 2024
Tested : 14 Mar 2024
Diagnosed : 14 Mar 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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